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ANNUAL REPORT

OF THE

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1897,

WITH

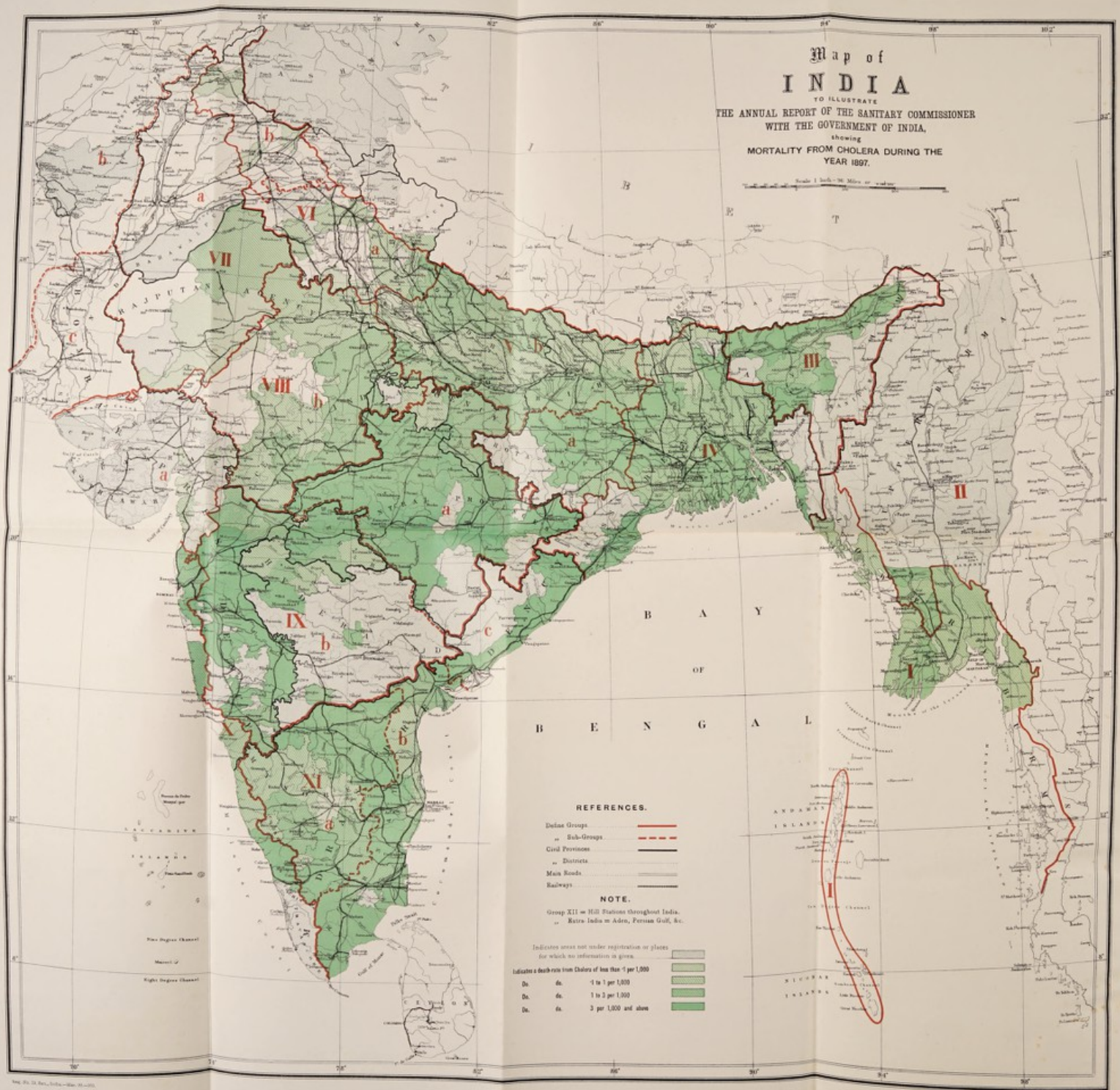
APPENDICES AND RETURNS OF SICKNESS AND MORTALITY AMONG EUROPEAN TROOPS, NATIVE TROOPS, AND PRISONERS, IN INDIA, FOR THE YEAR.

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Map of
INDIA
TO ILLUSTRATE
THE ANNUAL REPORT OF THE SANITARY COMMISSIONER
WITH THE GOVERNMENT OF INDIA,
showing
MORTALITY FROM CHOLERA DURING THE
YEAR 1897.
Scale 1 Inch = 96 Miles or 1/6,000,000
BAY
OF
BENGAL
REFERENCES.
Define Groups
,, Sub-Groups
Civil Provinces
,, Districts
Main Roads
Railways
NOTE.
Group XII = Hill Stations throughout India.
,, Extra-India = Aden, Persian Gulf, &c.
Indicates areas not under registration or places for which no information is given.
Indicates a death-rate from Cholera of less than 1 per 1,000
Do. do. 1 to 1 per 1,000
Do. do. 1 to 3 per 1,000
Do. do. 3 per 1,000 and above
I
II
III
IV
V
VI
VII
VIII
IX
X
XI
XII
a
b
c
RAJPUTANA AGENCY
CENTRAL PROVINCES
ANDAMAN ISLANDS
NICOBAR ISLANDS
CEYLON
Litho., S. L. O., Calcutta.

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APPENDICES AND RETURNS OF SICKNESS AND MORTALITY AMONG EUROPEAN TROOPS, NATIVE TROOPS, AND PRISONERS, IN INDIA, FOR THE YEAR.

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ANNUAL SANITARY REPORT FOR 1897.

SECTION I.

METEOROLOGY OF THE YEAR.

1. The following report on the Meteorology of India during the year has been kindly furnished by the Meteorological Department of the Government of India :—

Summary of the meteorological phenomena of the year, month by month.

January.—The month of January was less disturbed than usual. Accompanying the general lightness of the rainfall, heat was greater than usual, the mean temperature of the month having been above the normal over the greater part of the country. The excess was most marked in the Deccan area, exceeding 4° at Sholapur, Hyderabad, Kurnool, Nagpur and 5° at Akola. On the other hand over the North Punjab, Baluchistan, Sind, South-West Rajputana, Cutch and Gujarat the mean temperature was below the normal, and both the day and night temperatures were lower than usual. A well defined warm wave crossed Northern India at the commencement of the month, followed by a cool wave of considerable intensity during the second and third weeks.

The mean pressure of the month was 0·003″ below the normal and was lower over the hills than over the adjacent plains. The local pressure variations were generally small and unimportant.

The humidity was about normal over Burma, but the air was much drier than usual over North-East India. It was on the whole damper than usual over North-West India, the central districts and the north of the Peninsula, but was locally dry in the South-West Punjab and Sind. There was more cloud than usual over by far the greater part of the country—more particularly in the Central Provinces and Berar.

Two storms affected the weather, the first lasting from the 10th to the 15th and the second commencing on the 31st, but in addition a series of thunderstorms occurred between the 20th and 27th. The first storm gave general and moderate rain to Baluchistan, the Punjab, the west of the North-West Provinces, and heavy snow on the hills, while the thunderstorms in the third week gave rain to the North-West Provinces, Central India and the Central Provinces. The final storm had only begun to affect Upper India when the month closed. Burma, South and Central Bengal, Orissa, Bombay, Western and Central Rajputana, Mysore and Central Madras received no rain during the month, while the Central Provinces, Baghelkhand, Bundelkhand and the adjacent districts of the North-West Provinces received unusually heavy rain. The rainfall was normal or in slight excess in the Deccan, the Indus Valley, North-West Rajputana, East Rajputana, Central India and Gujarat.

February.—The weather was less disturbed and the storms feebler than usual in North-Western India, but on the other hand the weather was unusually disturbed over North-East India and the Peninsula. The mean temperature of the month was slightly lower than usual in Sind, Cutch, Kathiawar and Gujarat, where both the maximum and minimum temperatures ranged below the normal, and was higher than usual in all other places. The excess was greatest and averaged over four degrees over the central parts of the Peninsula, and was actually greatest at Cuddapah. The day temperatures were excessive over the whole of India, except the South-East Punjab and the West Coast districts, while the night temperatures were excessive except over North Bombay and South-West Rajputana.

The barometer was lower than usual throughout the country, the deficiency being greatest over the Deccan. Pressure was in moderate excess at the hill stations relatively to the adjacent plains stations.

Around the Bay area and inland over Chota Nagpur, the Deccan and Mysore the air was somewhat damper than usual, but over Assam, North Bengal, the Gangetic Plain, Rajputana, Central India, Berar and the northern districts of the Central Provinces the air was much drier than usual, while in Sind and Rajputana conditions were normal. The amount of cloud was excessive over the Bay area and adjacent regions, more parti-

cularly in Bengal and South India, but was in defect elsewhere. The deficiency was most marked in Sind and Rajputana.

The rainfall of the month was less than the normal over the greater part of the country and fell under somewhat unusual conditions accompanying local storms. The chief periods of rainfall were:—the 4th to 8th, when Baluchistan received moderate and the west and north of the Punjab light rain; the 11th to the 13th, when the western, north-western, submontane and hill districts of the Punjab received rain; and the 14th to the 20th, during which long period North-East India, Madras and the Deccan received frequent thunder showers which were heavy in the southern districts of Madras; and the 23rd to the 25th, when the northern and hill districts of the Punjab received light showers There was practically no rain during the month in Burma, Central India, the west of Rajputana, Oudh and the greater part of the North-West Provinces, the fall was in defect over Baluchistan, part of the Punjab and Bengal; it was normal in the north, west and submontane districts of the Punjab, and was in excess over Chota Nagpur, Orissa and the greater part of Madras and Hyderabad.

March.—The weather was more than usually disturbed over the north-east of the Indian region during March, but elsewhere conditions were about normal. The temperature conditions of the month differred considerably from those of the two preceding months, as the mean temperature was more or less below the normal over the whole of Northern and Central India and above over the Peninsula and Burma. The excess was most marked over the area including the stations of Bellary, Cuddapah, Kurnool, Secunderabad, Madras, Salem and Bangalore, while the deficiency was most marked in Gujarat and the North Punjab. The variations of the day and night temperatures were similar in character, as they were both higher than usual in Burma and the Peninsula and lower than usual elsewhere. The cold weather storms of the 8th to the 12th, of the 20th to the 25th and of the 26th to 30th were all followed by more or less well marked cool waves which occasioned brisk falls of temperature. The most noteworthy was that following the storm of the 20th to 25th, which temporarily reduced temperature by amounts ranging from 20° in Baluchistan to 9° in Bengal.

The barometer remained low generally, and the mean pressure of the whole of India was 0·020″ below the average. The pressure was somewhat lower at the hill stations relatively to the normal than at the neighbouring plains stations.

The most marked feature in the humidity conditions was the great dryness of the air over the whole of the interior of India most marked in Upper India and at the higher hill stations. The air was slightly damper than usual in Arakan and East Bengal. Over the whole of Central India and the West and Centre of the Peninsula the sky was unusually clear of cloud, but in North-Eastern and Northern India, and particularly at the hill stations, the amount of cloud was in excess of the normal.

The rainfall of the month was excessive over Burma and North-East India, about normal over Northern India and less than usual elsewhere. The chief periods of rainfall were—the 6th and 7th, when Kashmir received light showers; the 8th to 11th, when Baluchistan, the North Punjab received moderate showers, Bihar and North Bengal light local showers, and the North-West Himalayas moderate snow; the 20th to 25th, when a cold weather storm marched across Northern India and Baluchistan, the Punjab, the west of the North-West Provinces, Bihar, Bengal, Assam and Burma reported rain; the 26th to the 30th, when another cold weather storm gave light showers to the same regions as the previous storm, and the 31st, when Baluchistan received light showers.

April.—The weather over India during April was fairly quiet and fine up to the 15th, though thunderstorms gave numerous showers to Lower and West Bengal, Chota Nagpur and the eastern and southern districts of the Central Provinces on the 3rd, 4th and 5th; but the second half of the month was more disturbed than usual and three shallow depressions affected Northern India. Owing to the fine weather during the first half and the disturbed weather during the second half of the month, the variations of the mean temperature from the normal were generally small. The mean temperature of the month was generally below the normal over North-West India, more particularly in the North Punjab, where Peshawar reported a deficiency of 4½°. It was generally in excess over the remainder of the Indian region, most so in Burma, where the excess was between 2° and 3°. The mean day temperature was in defect over North-West India and part of the Gangetic Plain, and in excess over Upper Burma, Cachar and East Bengal, while elsewhere the variations were small. The night temperatures were above the normal over nearly the whole of India. A cold wave traversed Northern India between the 5th and 9th, the reduction of temperature ranging between 5° and 15° in Upper India. Unusually

low temperatures prevailed generally between the 20th and 23rd and this coolness was maintained in the extreme north-west until the close of the month.

The mean pressure of the month was 0·039″ above the normal. The greatest excess, 0·060″ and above, was reported from the North-West.

The principal features in the humidity returns were the great dryness of the air in Assam, Bengal and the Gangetic Plain and the increased dampness at the hill stations in Northern India. The sky was more cloudy than usual except over the area of great dryness noticed above.

The rainfall of the month occurred chiefly during thunderstorms and was hence very irregularly distributed and was practically or absolutely *nil* over Sind, Rajputana, the greater part of the North-West Provinces, Central India, Kathiawar, Gujarat the South Konkan and the Coromandel Coast districts. On the other hand Bengal and Assam, Malabar, Mysore, Coorg and the North Punjab received heavier rain than usual. The rainfall occurred principally during three periods of disturbance. The first period was between the 3rd and 7th, when South-West and West Bengal and parts of the Central Provinces and Baghelkhand received thunder showers ; the second between the 11th and 12th, when the North Punjab and Kashmir experienced light to moderate rain, and the third from the 18th to the end of the month, during which period the weather was more or less disturbed over nearly the whole country.

May.—The weather during the month of May was drier and finer and disturbed by fewer dust and thunderstorms than usual over the whole Indian region, with the exception of Lower and Central Burma and the Assam Valley. The heat was consequently excessive over the whole of India, with the exception of the above-mentioned regions. The excess of the mean temperature above the normal increased in amount from the coast districts into the interior and was more than 4° over the South Punjab, Upper Sind, Rajputana, Bundelkhand, Baghelkhand, the greater part of the North-West Provinces and West Bengal. The excess was absolutely greatest at Bickaneer, Jhansi and Mooltan. The mean day temperatures were higher than usual, except over Lower and Central Burma and the Assam Valley. The highest maximum temperatures during the month were registered at Jacobabad (121°), Chanda (119°), and Allahabad and Montgomery (117°). These readings were not exceptionally high. The night temperatures were almost as largely in excess as the day temperatures.

The mean pressure of the month was practically normal on the plains, but was in considerable excess at the hill stations.

The air was damper than usual in Burma and Assam where the mean temperature was low, but was drier than usual over the whole of the remainder of the Indian area. There was a greater amount of cloud than the normal over parts of Burma, Assam, Baluchistan and the Punjab hills, but elsewhere the sky was clearer than usual.

The rainfall of the month was mostly due to feeble hot weather disturbances of the ordinary type, and was more or less in defect over the greater part of India. Burma, however, received a moderately heavy burst of rain between the 13th and 16th from a cyclonic storm which passed into that province from the Andaman Sea. The chief periods of rainfall were from the 1st to the 8th, when thunder showers were received over Bengal Assam, Burma, Southern India and the north, east and hill districts of the Punjab ; from the 13th to 16th, when Burma received moderately heavy rain and Bengal numerous thunder showers ; the 18th and 19th, when Bengal reported a series of thunder showers ; the 23rd and 24th, when Burma, Bengal and Southern India received light rain, and the 28th to the end of the month, when Burma, Bengal and Southern India received moderate general rain. The returns for the whole month showed that Lower and Central Burma, North Bengal, Assam, Northern Coast districts of Madras and South and Central Madras had received more rain than usual, but over the remainder of India the fall was in defect. There was considerable delay in the establishment of the monsoon in Malabar, so that the West Coast and Southern India showed very deficient rainfall.

June.—The weather during June departed considerably from the normal type owing to the three following abnormal features, *viz.*, the delay in the establishment of the Bombay or West Coast monsoon, the weakness of that current throughout the month, and the general break in the rains which commenced in North-West India on the 23rd and extended to nearly the whole country before the close of the month. As a consequence of these conditions the heat was very generally excessive. In two small areas, the one including the north and east Punjab, Baluchistan and Kashmir, the other a part of West Bengal, the mean temperature of the month was below the normal ; but elsewhere it

was excessive—more particularly over the central parts of India and the inland parts of the Peninsula. Between the 1st and 7th and again between the 22nd and 30th very cool periods prevailed over the Punjab and Baluchistan, due probably to snowfall over the North-West Himalayas, while another cool period was reported over West Bengal and the central parts of the country between the 17th and 22nd. On the other hand a phenomenally hot period was reported between the 9th and 13th, when higher day temperatures were registered in parts of North-West India than have been previously recorded. At Jacobabad the thermometer reached 126°, which is the highest temperature which has yet been observed in India under the standard conditions of exposure. Both the day and night temperatures exceeded the normal average, except over parts of North-West India and of West Bengal.

The mean pressure of the whole of India was 0·011″ below the normal. On the hills the pressure relatively to the normal was about the same as at the stations on the neighbouring plains. The air was drier than usual all over the country, but particularly so all over the interior. The mean amount of cloud was low for the time of year except in Burma and the Gangetic Plain. The deficiency was greatest in the north-west and centre.

The chief features in the weather affecting the rainfall were the delay in the establishment of the West Coast monsoon and the break in the rains at the end of the month. The South-West monsoon rains began in Bengal on the 13th and along the West Coast on the 12th. The Bombay current began to show signs of weakness on the 20th and withdrew from Upper India on the 23rd, the central parts of the country on the 24th and the Deccan on the 25th, and dry weather was experienced over the whole of that region during the remainder of the month. North-East India received steady frequent showers during the month with heavy downpours in Orissa on the 16th and 17th and in Bihar on the 24th and 25th. For the whole month there was a large deficiency of rain in Upper Burma, Assam, North Bengal, the Bengal Hills, Berar, Khandesh, the Central Provinces, North Bombay and North Madras, practically normal rain in the North-West Provinces, the Punjab, Lower Burma and South Madras and an excess in Bihar.

July.—During the first week of July the monsoon currents were weak and the break in the rains, which was reported at the close of June, continued generally to the 6th of July. After that date the monsoon currents strengthened, and the rainfall increased causing a fall of temperature. From the 1st to the 10th the mean temperature of the whole country was largely excessive. It then fell, and from the 13th to the 20th was lower than usual practically in all provinces. From the 21st to the 26th the temperature variations, though generally showing an excess, were somewhat variable, but after the 26th another warm period set in which lasted till the close of the month. The mean temperature of the month was below the normal only in the Assam Valley, Upper Burma, and at one or two stations in the south of the Peninsula. The variations exceeded 2° over the greater part of the interior and 4° over the Central Provinces, Berar, Baghelkhand, the Circars and Hyderabad. The mean maximum or day temperature was above the normal practically everywhere, more particularly over the more central districts, where the maximum temperatures were higher than any previously recorded. The mean night temperatures were also excessive. The hottest period was between the 1st and the 10th, when the maximum temperatures of the month were recorded.

The mean pressure of India agreed exactly with the normal.

The humidity was normal in Burma, slightly above the normal in Assam and in the west coast of the Peninsula, and lower than usual elsewhere. There was more cloud than usual over North-Eastern and Southern India, but less than usual over the remainder of India.

A general break in the rains obtained at the commencement of the month and lasted up to the 6th at the Coast districts and to the 10th or 11th in Upper India. After the 11th three cyclonic storms appeared one after the other. Each of the storms gave moderate to heavy rain to the districts affected by it. Another break in the rains commenced on the 26th and lasted till the 29th, extending to all parts of Northern and Central India and the head of the Peninsula. The rainfall of the month was below the normal over Burma, Bengal and North Bihar, the Punjab, excepting the southern districts, the Central Provinces and Berar, Gujarat, Kathiawar, Central India, and Madras, except the Malabar and the Mid-Madras coast districts. The deficiency was most marked in the Central Provinces, the Bombay Deccan, North Hyderabad, Gujarat, Central Bengal, North Bihar, the

Central Punjab and the eastern division of Central India. The rainfall was excessive along the West Coast, over the western divisions of the North-West Provinces and at the hill stations and was about normal elsewhere.

August.—A very steady monsoon prevailed during this month, the currents, though not very strong, extended all over the country and to their farthest limits in the Punjab. The rainfall accompanying this condition was general, but there was an almost entire absence of cyclonic downpours. Perhaps partly on this account the mean temperature of the month was somewhat above the normal over the greater part of the country. The only important feature in the temperature distribution was, however, the excess over the Deccan and Central Madras, where the mean was between 2°·1 and 3°·1 above the average. The mean temperature conditions at the hill stations were normal. The mean maximum or day temperature for the month was below the normal over a large part of Northern India and above elsewhere, more particularly so within the hot area in the Deccan. The night temperatures were higher than usual except in the West Punjab.

The mean pressure of the Indian area was 0·015″ below the normal. The deficiency was greatest and exceeded 0·040″ in North Bombay.

On the mean of the month the humidity was normal in Burma, the air was somewhat damper than usual over North-East India and the Central Provinces and much damper over North-West India, while on the contrary it was generally drier than usual over the Peninsula, particularly the Deccan. The sky was more cloudy than usual over by far the greater part of the country, even to the very dry area of the Deccan this excess extended. There was, however, a slight deficiency of cloud over Assam, Central Bengal and South Bihar.

As mentioned above the monsoon currents were exceptionally steady and of the normal strength during August and the rainfall unusually well distributed. The chief periods of most general rain were from the 1st to the 10th, when Bengal, the North-West Provinces, Rajputana, the Central Provinces, Berar and Central India obtained moderate to heavy rain; from the 13th to the 23rd, when Northern and Central India received moderate to heavy rain; and from the 24th to the 30th. The rainfall was in defect of the normal in Upper Burma, the Assam Hills, the Bengal Hills, North Bengal, North Bihar, Orissa, Rajputana East, and Central India West, and the south of Hyderabad. It was more or less in excess of the normal elsewhere, most largely so in the North-West Provinces, the Central Provinces and parts of the Punjab, of Madras, of North Bombay where 50 per cent. more rain than usual was received during the month. A heavy downpour of rain occurred over parts of the Central Provinces between the 11th and 16th.

September.—The rainfall of the month was in excess over the greater part of the country, more particularly in the south, where it was practically double the normal. Notwithstanding this the mean temperature of the month was higher than usual over nearly the whole country, the exceptions being Assam, East Bengal, the West Punjab and Madras. The excess was generally small, but exceeded 2° over the South Gangetic Plain. The day temperatures were generally unusually high except in Assam, East Bengal, North-West India and Madras. The nights were warmer than usual over nearly the whole country.

The mean pressure of the whole of India was 0·024″ higher than the normal of the month.

The air was damper over the whole of India, except Bengal, Orissa and the West Coast districts, where the humidity was normal, and the Gangetic Plain and Chota Nagpur, where the air was drier than usual. Humidity was in most marked excess in two areas, the first including Sind and South-West Rajputana, the second Madras and Mysore. The sky was more cloudy than usual, except over the Gangetic Plain and Upper India.

The rainfall of the month though not very much heavier than usual, except in the south, was unusually favourably distributed. The chief periods of most general rainfall were:—from the 1st to the 6th, when nearly the whole of India received rain; the 11th to the 19th, during which nearly the whole of India again received moderate to heavy rain; the 19th to the 22nd, when the east of Rajputana, Gujarat, Kathiawar, Cutch, Central India, Bengal, Orissa, the Deccan and Malabar obtained light to moderate rain; and the 25th to the end of the month, when for the third time nearly the whole of India obtained moderate to heavy rain. The total rainfall of the month was less than the average over Burma (except Arakan), Deltaic Bengal, Orissa, Chota Nagpur, the Bengal Hills, the North-West Provinces (except the submontane and hill districts), the Punjab (except the hill districts), the west of the Central Provinces, Gujarat, Baluchistan and Rajputana (East) and Central India (West). The deficiency was most marked in Tenasserim, Upper

Burma, the central and south-east divisions of the Punjab and the east of the North-West Provinces. Over the remainder of India the rainfall was in excess, largely so in Madras, Bombay, Mysore, Sind, Assam Hills, parts of East Bengal, North Bengal and the North-West Provinces (Hills). The monsoon rainfall ceased in the Punjab on the 26th.

October.—The weather during October was largely influenced by three disturbances or storms, the first lasting from the 1st to the 6th, the second from the 12th to the 19th, and the third from the 21st to the 25th. The rainfall due to these storms was mainly confined to the eastern half of India, the western half receiving less rain than usual, and the temperature conditions of the month were modified accordingly. The mean maximum or day temperature of the month was in excess over part of the Madras Presidency, the rains of the North-East monsoon having failed in that region. It was in moderate excess in Berar and the North Punjab, while on the contrary it was in moderate to considerable defect in Kathiawar and South-West Rajputana. The mean minimum or night temperature was below the normal in North Bombay, Rajputana and Baluchistan, and above the normal over Upper Burma and North-East India on the one hand and over Berar and the Deccan on the other. These variations resulted in the mean temperature of the month ranging below the normal over North Bombay, South-West Rajputana and Baluchistan, and above the normal over the remainder of India. On the 11th a cool wave appeared in Baluchistan and extended very slowly eastward causing a very considerable reduction of temperature over North Bombay and Rajputana between the 18th and 24th.

The mean pressure of the month was 0·016″ below the normal.

The air was drier than usual over Baluchistan and the Punjab, and damper than usual over Burma, North-East India, Lower Sind, South-West Rajputana, Gujarat, the West Deccan and Mysore. The cloud amount was in excess over Burma, North-East India and the Deccan. The excess was greatest in Burma, Bengal and Orissa.

As mentioned above, the rainfall of the month occurred chiefly during three periods. Between the 1st and 6th rain fell in moderate amounts over Southern India, North Madras, North-East India, Burma and the eastern districts of the Central Provinces, Between the 12th and 19th a large but diffused disturbance gave moderate rain to the same districts, while between the 21st and 25th East Bengal and Burma received light to heavy rain from the cyclonic storm which crossed the Chittagong coast. The rainfall was hence mainly confined to the North-East, and the greater part of Burma, the whole of North-East India, the eastern districts of the Central Provinces and North Madras received excessive rain. Over the remainder of India the fall of the month was below the normal, but the deficiency was not large or important except in the Carnatic which usually receives heavy rain in October from the retreating South-West monsoon. These rains failed almost entirely, and the Coromandel Coast districts reported hardly one-fourth of the normal amount.

November.—The principal features in the weather during the month of November were the failure of the rains over Madras and the Deccan, and the general fine weather which prevailed elsewhere. There was a steady excess of temperature during the month over nearly the whole of Northern India and Baluchistan and persistent high temperature in the Coromandel Coast districts and Southern India accompanying the scanty rainfall in that area. On the other hand, there was equally persistent low temperature over Burma and Assam. The mean maximum or day temperatures of the month were higher than usual except in Assam, in the eastern districts of Bengal and in Orissa. The excess was greatest and between 3° and 5° over North-West India and over the south of the Peninsula. The mean minimum or night temperatures were higher than usual, except in Assam and Central Burma, where they were in slight, and in the west of the Peninsula, where they were in moderate to large defect of the average. The mean temperature of the month was normal or in slight defect in Assam and Burma, in slight defect in the West Deccan, and in slight excess over the remainder of the Peninsula, and more or less in excess over the whole of Northern and Central India.

The mean pressure of the whole of India for the month was 0·008″ below the normal. Pressure was in trifling excess over the Peninsula and Central Provinces, and in slight defect elsewhere.

The mean humidity of the month was generally in excess over Burma and Northern and Central India. The air was abnormally dry over the Peninsula. This was particularly the case between the 1st and 4th, when there was unusual dryness of the atmosphere over the Deccan. There was more cloud than usual over Burma, South Bengal,

Orissa and North Madras. Elsewhere the cloud amount was in defect, the deficiency was greatest in the Deccan, Mysore and the Konkan coast.

Scattered showers were received between the 1st and 4th in the south of the Peninsula, and moderate rain between the 12th and 16th in Upper Burma, Assam and parts of Madras, and between the 25th and 30th over Southern India. The total rainfall of the month was more or less below the normal over nearly the whole of India. The deficiency was small in actual amount in Northern, Central and Western India, but was moderate to large in the Peninsula increasing in amount southward, and was greatest over South India where, as mentioned above, the autumn rains failed. The rainfall was in very slight excess in Cachar and Upper Burma ; but in moderate to large defect in Lower and Central Burma.

December.—The weather during December was even finer than usual. There was no rainfall from the retreating South-West monsoon in Southern India and were only two disturbed periods over North-West India. The variations of the mean temperature of the month were generally small and unimportant except in the following regions. In Baluchistan and the greater part of Upper India and in Burma the temperature was above the normal to a moderate extent, and in Central India and the north and centre of the Peninsula it was below the normal to a slight to moderate extent. The cold weather disturbance of the 10th to 12th was followed by the advance of a cold wave across India, which caused a well-marked reduction of temperature. Very low minimum temperatures were recorded over the greater part of the Peninsula and Central India during the month.

The mean pressure of the whole of India was 0·003″ above the normal. The excess was most marked in the area defined by the stations of Neemuch, Indore, Khandwa, Akola, Amraoti, Bhuj and Rajkot.

The air was drier than usual, except over Upper India, Baluchistan and Burma. The abnormal dryness was most marked over the interior of the Peninsula and Central India. The sky was more cloudy than usual in Lower Burma and Madras and in Baluchistan and the Indus Valley, while skies were practically cloudless throughout the month in the Gangetic Plain, Central India, the Deccan and West Coast.

There were four periods of slight disturbance and of rainfall during December. Between the 7th and 12th moderate rain fell over Baluchistan, Sind, Kashmir and Punjab ; between the 14th and 20th frequent showers were received in Southern India ; between the 27th and 30th light to moderate showers fell over Baluchistan and the North Punjab, and on the 30th and 31st showers were received in the Coast and Southern districts of Southern India. There was an actual or practical absence of rain over by far the greater part of the country, but in the west, north and central divisions of the Punjab the amount was larger than usual. In Southern India the rainfall was very scanty.

Year.—During the year 1897 the weather was generally quiet and less disturbed than usual but to a less extent than in 1896. During the cold weather period, which includes the months of January and February, there were three cold weather storms none of which were very intense. There were consequently fewer storms than usual and the warm and cold waves accompanying the storms were feeble and consequently exercised little influence on the mean temperature conditions. Warm and cold waves occurred between 9th and 19th of January and between the 23rd of February and the 3rd of March. For the whole cold weather period the mean maximum or day temperatures were generally in excess. The night temperatures were also in excess except over North Bombay and Rajputana, the excess being greatest over the centre of the Peninsula. The mean temperature was consequently above the normal except in North Bombay and Rajputana. The hot weather period, which includes the months of March, April and May, had unusually disturbed weather in March, slightly more disturbed weather than usual in April, and very quiet weather in May. The temperature was consequently low in extra tropical India in March—particularly in Upper India—and high in Burma and the Peninsula. The temperature was in slight to considerable defect in Upper India in April, but was higher than usual in other parts of India and much higher in Burma. May was hotter than usual almost everywhere. For the whole period the maximum or day temperatures were excessive except in the Punjab and Baluchistan, and the night temperatures were excessive except in Assam and Baluchistan, consequently the mean temperature was very generally excessive. The excess was greatest in the Deccan, Berar and the North-West Provinces. At the hill stations the temperature was generally low. In the South-West monsoon period extending from June to September, the variations of temperature were as usual

dependent on the distribution and intensity of the rainfall. The monsoon rains were late in setting in, and a break in the rains occurred from the 24th of June to the 11th of July. Consequently in the beginning and end of June and the beginning of July very excessive temperatures were recorded. For the whole period, the day, the night, and the mean temperatures were excessive—more especially in the central parts of the country and the Deccan. During the retreating South-West monsoon period lasting from October to December, the mean temperature remained generally excessive, but during this period the excess was greatest in Upper India. In the Peninsula high day and low night temperatures occasioned an unusually large diurnal range of temperature. The mean temperature of the whole Indian land area was 0°·9 above the normal. The excess was 1°·2 in tropical and 0°·6 in extra tropical India.

The pressure variations for the year were everywhere small. There was a slight excess over the Himalayas and at the Bay Islands, and a deficiency elsewhere.

The mean humidity of the whole year for the whole country was slightly below the normal. The amount of aqueous vapour in the air was in moderate defect in the Punjab, Konkan and Deccan, but was above the normal over the greater part of the country. The variations were again very persistent throughout the year. Thus in Chota Nagpur, Orissa, Malabar, the Central Burma and the Bay Islands in all months, and in the Konkan and Gangetic Plain for eleven months, the relative humidity was above the normal. The mean cloud amount of the whole year was normal. There was a trifling excess over tropical, and a trifling defect over extra tropical India.

The rainfall of the whole year for the whole Indian region exhibited a variation from the normal of —0·15″ as compared with —4·83″ in 1896 and —2·19 in 1895. Excessive rain was reported from the North-West Provinces, Bihar, West Bengal, Orissa and North Circars, Gujarat, Sind and Cutch, the North Deccan, the Konkan and Ghâts, the Malabar Coast and Ghâts, Mysore and Bellary, Pegu, and Tenasserim, and deficient rain from all other districts. The excess was mainly due to heavy rain in the South-West monsoon period as in the other three periods, the amounts were generally less than usual. In the cold weather period the rainfall was scanty except in North-East and Southern India, and the snowfall was small in amount except on the higher ranges. Very heavy thunder showers were received in Southern India. In the hot weather period the weather was more disturbed than usual in March and April, and less disturbed than usual in May. Burma had more rain than the normal during this period, but Cachar, Bengal, Bihar, the North-West Provinces and parts of the Punjab, Sind, Rajputana, Central India and Berar had less. The rainfall of the period was in large excess in the North Punjab, and in slight to moderate excess in the Punjab Hills, Baluchistan and the Central Provinces. In Southern India and the Deccan the rainfall was normal or in slight to large defect. The rainfall of the South-West monsoon period was somewhat larger than usual and was favourably distributed, but the arrival of the rains was retarded almost as much as in 1896, and there was a decided break in the rains at the end of June and beginning of July. The rainfall of the period was below the normal only in 9 divisions *viz.*, Tenasserim, Central and Upper Burma, the Bengal Hills, Orissa, North Bihar, the South-East and Submontane Punjab and the west of Central India, and was above the normal in all other places.

The monsoon currents withdrew from Upper India in the fourth week of September, and from Central India, Bengal and Deccan in the second week of October, and the rainfall during the last three months of the year was generally in defect except in parts of Burma, Assam, Bengal and the east of the North-West Provinces, where there was heavy rain in October. Pressure conditions were throughout unfavourable for rain in the Peninsula, and the rainfall of the period was in large and marked defect in the Central and South Madras Coast districts and in Mysore.

Appendix to Section I.

TABLE I.—*Showing the mean monthly* BAROMETRIC PRESSURE *and its variation from the average in thirty-four stations of India during 1897.*

STATION.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.	
	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Calcutta (Alipore).	30·006	—·008	29·922	—·031	29·843	—·010	29·786	+·038	29·656	—·002	29·539	—·008	29·561	+·024	29·592	—·004	29·737	+·052	29·804	—·032	29·931	—·030	30·016	—·008
Narayanganj	29·994	—·019	29·913	—·037	29·842	—·007	29·794	+·039	29·687	+·001	29·562	—·016	29·586	+·021	29·611	—·007	29·750	+·045	29·808	—·029	29·917	—·027	29·995	—·012
Chittagong	29·933	—·009	29·860	—·043	29·812	—·012	29·762	+·017	29·662	—·007	29·541	—·026	29·569	+·013	29·591	—·013	29·709	+·032	29·750	—·037	29·847	—·030	29·924	—·015
Sibsagar	29·694	—·025	29·623	—·039	29·559	—·016	29·518	+·029	29·424	+·008	29·263	—·040	29·283	+·006	29·313	—·014	29·446	+·023	29·520	—·042	29·656	—·018	29·719	—·014
Silchar	29·925	—·005	29·844	—·042	29·795	—·005	29·744	+·024	29·652	+·006	29·521	—·019	29·547	+·025	29·564	—·010	29·695	+·042	29·745	—·030	29·843	—·031	29·921	—·014
Cuttack	29·940	—·014	29·841	—·056	29·786	—·013	29·742	+·051	29·591	—·011	29·475	—·026	29·507	+·009	29·529	—·018	29·660	+·031	29·727	—·056	29·873	—·033	29·965	—·003
Hazaribagh	27·976	—·002	27·908	—·031	27·837	—·025	27·815	+·045	27·658	—·025	27·552	—·026	27·576	+·008	27·595	—·024	27·751	+·041	27·824	—·043	27·932	—·034	27·986	—·013
Patna	29·849	—·012	29·755	—·045	29·654	—·018	29·581	+·031	29·431	—·030	29·329	—·022	29·357	+·005	29·395	—·020	29·554	+·040	29·648	—·034	29·787	—·029	29·877	—·006
Darjeeling	22·979	+·012	22·925	—·019	22·936	+·002	23·003	+·056	22·929	+·017	22·865	—·004	22·881	+·013	22·919	+·011	22·904	+·026	23·030	+·009	23·037	—·006	23·025	+·007
Allahabad	29·723	—·006	29·639	—·038	29·527	—·023	29·470	+·031	29·286	—·031	29·174	—·030	29·208	+·001	29·243	—·025	29·413	+·037	29·522	—·033	29·659	—·026	29·754	+·001
Lucknow	29·670	+·003	29·578	—·036	29·468	—·026	29·425	+·063	29·235	—·028	29·128	—·023	29·144	—·007	29·189	—·029	29·348	+·025	29·450	—·046	29·598	—·032	29·688	—·002
Meerut	29·278	—·005	29·195	—·037	29·094	—·021	29·052	+·061	28·863	—·015	28·759	—·005	28·772	+·007	28·827	—·006	28·966	+·026	29·094	—·023	29·219	—·028	29·308	+·003
Delhi*	29·332	—·005	29·251	—·031	29·152	—·032	29·115	+·056	28·933	—·019	28·832	—·002	28·821	—·002	28·877	—·009	29·025	+·020	29·153	—·022	29·274	—·024	29·356	0
Agra	29·474	—·007	29·397	—·039	29·279	—·037	29·230	+·052	29·041	—·033	28·939	—·018	28·935	—·012	28·968	—·028	29·140	+·002	29·278	—·035	29·405	—·039	29·504	—·004
Jhansi*	29·210	—·004	29·133	—·035	29·050	—·028	29·011	+·051	28·829	—·021	28·712	—·025	28·712	—·002	28·755	—·019	28·925	+·036	29·042	—·011	29·163	—·011	29·247	+·021
Ajmere	28·400	—·005	28·338	—·033	28·252	—·029	28·231	+·050	28·064	—·019	27·960	—·021	27·932	—·017	27·982	—·038	28·141	+·017	28·275	—·016	28·372	—·024	28·443	+·004
Saugor	28·183	—·005	28·111	—·030	28·046	—·025	28·005	+·036	27·867	—·012	27·750	—·035	27·753	—·010	27·792	—·025	27·942	+·027	28·047	—·031	28·150	—·021	28·225	+·009
Jubbulpore	28·664	+·001	28·585	—·043	28·524	—·015	28·479	+·045	28·336	—·002	28·231	—·013	28·238	+·005	28·262	—·030	28·413	+·036	28·513	—·025	28·624	—·027	28·698	+·007
Mooltan	29·629	+·001	29·541	—·043	29·424	—·039	29·395	+·067	29·260	—·021	29·054	+·016	29·026	+·003	29·105	+·008	29·266	+·033	29·417	—·015	29·545	—·041	29·666	+·014
Lahore	29·326	—·002	29·250	—·034	29·126	—·042	29·108	+·070	28·883	—·024	28·779	+·006	28·773	+·002	28·844	+·001	28·992	+·025	29·127	—·023	29·251	—·044	29·361	+·006
Peshawar	28·960	+·016	28·879	—·027	28·791	—·021	28·797	+·109	28·558	+·015	28·430	+·043	28·360	—·001	28·435	+·003	28·598	+·016	28·742	—·037	28·846	—·059	28·979	+·011
Ramkhet	24·140	+·029	24·086	—·001	24·077	—·006	24·117	+·054	24·033	+·019	23·937	0	23·929	+·007	23·959	+·004	24·058	+·028	24·121	+·002	24·161	+·003	24·161	+·012
Chakrata	23·300	+·007	23·254	—·012	23·246	—·034	23·312	+·039	23·245	+·017	23·157	+·007	23·142	+·014	23·177	+·008	23·262	+·016	23·316	—·011	23·340	—·003	23·328	—·007
Indore*	28·208	+·008	28·141	—·027	28·107	—·005	28·079	+·046	27·969	+·020	27·856	+·005	27·829	+·011	27·863	—·016	28·000	+·033	28·110	+·001	28·199	+·012	28·252	+·028
Deesa	29·549	+·013	29·486	—·020	29·408	—·014	29·358	+·035	29·225	—·009	29·106	—·017	29·071	—·025	29·121	—·051	29·277	—·004	29·413	—·002	29·511	0	29·570	+·024
Karachi	30·046	+·015	29·985	—·014	29·889	—·007	29·842	+·050	29·681	+·005	29·527	—·009	29·490	—·014	29·543	—·047	29·708	—·011	29·766	—·006	29·974	—·010	30·056	+·004
Bombay	29·957	+·006	29·913	—·012	29·877	+·003	29·832	+·022	29·787	+·018	29·675	+·006	29·640	—·029	29·682	—·045	29·769	—·017	29·852	+·010	29·909	—·001	29·963	+·013
Belgaum	27·433	+·001	27·387	—·028	27·365	—·010	27·346	+·023	27·296	—·003	27·230	—·010	27·234	—·015	27·250	—·025	27·303	—·012	27·367	+·012	27·396	—·003	27·437	0
Nagpur	28·954	—·011	28·858	—·053	28·804	—·018	28·759	+·038	28·634	+·002	28·540	—·023	28·562	+·001	28·583	—·029	28·709	+·031	28·808	—·016	28·922	—·015	29·003	+·019
Bellary	28·492	—·009	28·413	—·054	28·384	—·018	28·361	+·026	28·281	—·009	28·251	—·018	28·259	—·023	28·279	—·025	28·331	—·009	28·389	—·007	28·448	—·013	28·503	—·004
Bangalore	26·990	+·002	26·944	—·031	26·921	—·017	26·904	+·024	26·843	—·002	26·810	—·012	26·822	—·012	26·825	—·019	26·764	—·011	26·911	+·005	26·935	—·012	26·969	—·013
Madras	29·996	—·006	29·926	—·042	29·884	—·020	29·863	+·041	29·737	+·002	29·681	—·019	29·715	—·007	29·721	—·025	29·783	+·009	29·835	—·006	29·900	—·021	29·964	—·013
Rangoon	29·933	—·017	29·879	—·030	29·856	—·002	29·806	+·009	29·762	+·007	29·714	—·021	29·736	+·003	29·744	—·010	29·804	+·023	29·832	—·015	29·875	—·023	29·933	—·010
Akyab	29·982	—·012	29·925	—·029	29·899	+·001	29·843	+·013	29·765	+·007	29·655	—·022	29·684	+·015	29·701	—·006	29·802	+·041	29·834	—·020	29·920	—·019	29·976	—·017

* The barometric means of these stations are the means of 8 hours only.

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Appendix to

TABLE II.—*Showing the Highest, Lowest and Mean TEMPERATURE in shade and its*

Station.	January.				February.				March.				April.				May.				June.			
	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Calcutta (Alipore)	87·7	49·0	67·8	+2·6	91·6	53·2	72·4	+2·4	98·9	63·9	79·4	+0·2	103·7	67·6	85·7	+0·7	104·6	70·2	87·1	+1·7	97·1	73·5	84·6	+0·1
Narayangaej .	83·9	48·3	67·7	+1·5	89·7	53·9	72·4	+1·5	96·1	58·4	78·7	+0·3	101·0	66·2	83·9	+0·6	95·9	71·2	84·3	+1·7	95·1	74·2	83·8	+0·7
Chittagong .	87·1	49·2	68·9	+2·8	92·3	52·2	73·4	+3·3	91·1	59·1	77·8	+1·0	97·7	68·1	82·4	+1·9	98·2	69·1	84·2	+3·1	92·3	78·1	81·9	+1·4
Sibsagar .	75·8	43·9	60·0	+2·0	81·5	49·1	62·4	+1·0	87·5	51·5	67·8	+0·2	90·2	58·1	74·9	+0·8	93·1	67·0	76·3	−1·2	96·2	72·0	83·0	+0·4
Silchar . .	84·6	47·5	65·3	+1·9	89·5	49·5	69·1	+2·1	96·1	53·3	74·2	+0·8	97·2	61·4	80·0	+2·4	95·0	65·7	79·6	+0·1	98·6	70·8	83·5	+0·9
Cuttack . .	92·6	57·3	74·1	+3·3	99·3	64·7	80·0	+4·3	102·2	68·2	82·6	+0·6	108·4	71·4	86·5	−0·1	108·3	73·2	90·0	+2·1	109·6	76·6	88·4	+2·7
Hazaribagh .	81·9	45·1	62·8	+1·9	91·8	49·9	67·0	+1·4	97·1	59·2	74·9	−0·5	105·1	64·3	85·1	+0·9	110·6	62·3	89·7	+4·1	109·1	69·3	82·6	+0·7
Patna . .	82·2	42·9	63·4	+2·7	91·2	51·1	68·3	+3·1	101·0	54·3	76·8	−0·3	110·2	64·6	87·3	+0·8	111·1	66·1	89·4	+1·9	112·4	74·1	86·6	−0·3
Darjeeling .	53·9	32·5	40·3	+1·0	59·0	33·0	42·2	+1·5	64·1	37·1	48·7	+0·5	70·1	41·1	54·6	+0·7	72·1	45·7	58·2	+1·9	70·7	53·8	60·4	+0·6
Allahabad .	88·0	38·4	63·2	+2·1	95·6	47·4	67·9	+2·6	102·4	50·7	77·5	−0·3	113·2	65·0	89·5	+1·8	117·0	72·5	97·1	+4·7	114·3	77·6	92·8	+2·2
Lucknow . .	81·7	40·2	62·7	+1·8	93·2	46·2	66·6	+1·4	99·5	47·1	75·7	−0·5	111·1	61·2	88·2	+0·9	117·0	73·3	94·7	+3·6	115·7	73·4	92·7	+1·4
Meerut . .	78·6	37·4	58·7	+2·5	90·7	44·3	62·6	+1·8	95·1	48·9	72·3	0	107·8	59·8	82·6	+0·1	111·5	68·9	91·0	+2·5	112·8	72·2	90·9	+0·3
Delhi* . .	78·2	37·9	59·4	?	88·7	45·4	63·8	?	96·2	53·9	73·6	−1·6	109·2	65·4	85·3	−1·6	114·2	73·9	94·7	+3·0	114·7	72·9	93·9	+0·1
Agra . .	84·0	39·8	60·9	+0·8	96·2	47·8	65·4	+1·1	99·1	54·8	75·2	+0·3	110·3	65·7	87·0	+0·1	114·0	75·9	95·0	+2·9	117·2	74·9	93·4	−0·8
Jhansi* . .	88·1	44·4	63·8	+0·6	98·1	53·4	69·4	+2·0	103·1	56·9	79·8	+0·5	112·2	69·4	90·7	+0·9	116·2	78·4	100·0	+5·2	118·2	76·9	95·4	+1·8
Ajmere . .	85·8	36·1	58·6	+0·4	89·6	40·9	64·0	+1·8	95·2	45·3	73·4	0	107·8	54·7	81·2	−0·4	110·3	67·8	94·5	+4·4	116·3	72·1	93·5	+4·0
Saugor . .	86·4	45·1	64·5	+1·5	94·2	51·5	70·4	+2·9	99·3	56·1	78·7	+1·5	107·6	66·6	86·3	−0·6	111·1	70·4	93·7	+3·7	114·2	71·7	89·1	+3·2
Jubbulpore. .	86·9	43·8	65·2	+3·5	95·2	46·1	69·1	+2·8	100·6	51·5	76·5	−0·1	108·1	59·1	87·0	+0·7	112·2	67·7	93·7	+3·6	114·1	72·6	88·9	+2·3
Mooltan . .	76·6	34·5	55·5	+1·3	87·5	43·4	61·2	+2·6	92·7	48·2	70·3	−0·9	109·5	58·9	83·4	+0·1	115·5	73·0	95·3	+4·4	121·0	73·0	95·2	+0·6
Lahore . .	73·5	36·4	53·9	+1·9	82·8	44·1	58·5	+1·8	90·6	49·0	68·4	+0·6	105·8	55·2	80·1	+0·5	112·1	67·3	91·0	+3·6	118·1	71·3	91·5	+0·3
Peshawar . .	69·1	32·8	48·1	−1·4	75·0	39·7	54·0	+1·5	80·1	43·2	60·6	−3·4	94·0	49·5	69·2	−3·9	106·5	60·0	83·3	−0·1	114·5	64·6	87·3	−2·6
Ranikhet . .	60·2	32·9	46·3	+0·3	65·5	31·1	48·1	+1·0	71·5	38·6	54·6	−1·9	85·4	44·1	64·3	−0·6	88·2	49·5	72·0	+3·8	88·1	54·4	71·4	+0·9
Chakrata . .	59·1	28·2	41·8	+0·2	61·6	28·7	43·0	+0·7	67·2	33·3	49·0	−2·3	80·1	38·2	58·0	−1·7	84·1	47·3	66·2	+1·4	81·7	49·2	66·3	−0·8
Indore* . .	87·7	39·6	65·8	+1·2	94·2	46·1	69·3	+2·2	98·1	48·1	75·6	−1·1	108·0	61·6	85·8	+1·2	110·5	67·6	92·3	+3·4	112·5	67·6	88·9	+4·2
Deesa . .	91·0	37·9	65·5	−2·1	92·8	44·0	69·5	−1·0	100·8	51·2	78·6	−2·1	115·2	62·4	88·4	+0·4	113·4	74·1	92·7	+1·5	119·3	72·0	93·3	+3·5
Karachi . .	82·3	40·8	63·4	−1·6	86·0	47·3	67·7	−0·5	91·2	56·3	74·4	−1·1	98·5	65·0	79·7	0	94·7	74·9	83·9	−0·1	114·1	80·0	87·9	+1·1
Bombay . .	88·8	61·1	72·9	−0·3	83·6	63·3	74·3	−0·8	86·0	66·1	77·2	−1·6	93·5	71·0	82·3	−0·3	93·3	77·8	84·8	+0·1	93·7	74·8	84·4	+1·2
Belgaum . .	90·1	54·7	72·6	+2·7	96·3	53·8	74·8	+2·0	99·2	58·2	77·7	+0·6	101·3	63·1	80·2	+1·0	104·1	65·2	79·2	+1·5	93·8	66·4	74·8	+2·2
Nagpur . .	92·9	55·2	72·2	+4·0	100·1	59·0	78·6	+4·9	104·6	57·9	83·9	+0·6	113·0	66·5	92·5	+2·0	117·0	68·6	97·1	+2·5	114·2	72·5	99·5	+4·5
Bellary . .	98·0	59·1	77·2	+4·0	102·7	64·2	85·0	+5·1	106·0	67·2	87·9	+2·3	107·2	73·9	89·6	+0·4	111·0	70·8	91·1	+2·5	101·2	70·8	84·6	+1·7
Bangalore . .	88·5	54·3	71·1	+3·5	92·6	59·0	76·3	+4·4	95·4	60·2	80·0	+3·1	97·1	66·1	81·8	+1·5	100·8	66·3	81·6	+3·0	91·0	65·1	76·7	+2·5
Madras . .	87·6	65·1	76·7	+1·2	94·0	67·3	80·3	+3·2	96·0	68·1	82·0	+1·2	96·0	72·6	84·3	+0·4	107·1	76·5	88·3	+0·9	105·3	72·4	88·5	+1·2
Rangoon . .	94·6	57·7	75·5	+1·5	99·3	61·8	79·1	+2·7	102·0	64·8	81·9	+1·4	105·1	73·6	86·4	+1·7	102·2	73·8	81·5	−1·0	98·9	73·7	80·3	+0·9
Akyab . .	86·2	55·9	71·3	+1·3	91·8	57·0	75·4	+3·1	92·2	62·5	78·3	+0·3	94·1	68·7	82·5	−0·3	94·6	70·5	84·3	+1·0	90·5	74·0	81·2	0

* The mean temperature for these stations is

Section I.

variation from the average of each month in thirty-four stations of India during 1897.

July.				August.				September.				October.				November.				December.				Station.
Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	
97·7	74·6	83·6	+0·5	89·4	74·2	81·9	−0·8	90·7	73·9	83·1	+0·6	89·3	63·4	80·1	+0·1	84·0	60·2	72·7	+0·3	78·9	49·0	65·1	−0·2	Calcutta (Alipore).
93·1	75·3	83·5	+0·3	90·1	75·4	83·0	+0·2	91·1	74·6	82·9	−0·1	91·1	72·2	82·5	+2·1	89·4	60·3	75·2	+0·7	81·8	83·3	67·8	+0·3	Narayanganj.
91·2	74·1	80·4	+0·4	90·3	74·1	79·9	+0·3	92·5	72·1	81·0	+0·4	90·2	73·8	81·2	+1·2		Temperature not recorded.							Chittagong.
95·2	74·4	84·3	−1·9	95·2	74·5	83·0	−0·3	92·3	72·3	79·1	−1·6	89·7	65·1	78·1	+2·0	81·9	52·6	66·4	−1·1	73·7	45·3	59·5	+0·7	Sibsagar.
97·7	70·5	82·6	+0·4	96·6	75·3	83·0	+0·6	94·7	72·3	81·5	−0·1	95·8	69·2	81·7	+2·7	92·5	54·4	73·2	+0·5	86·2	50·4	67·1	+1·3	Silchar.
104·4	74·2	83·4	+0·9	93·6	74·1	81·9	−0·6	94·4	75·0	83·4	+0·8	93·3	63·6	80·2	−0·6	89·6	60·1	74·2	−0·5	84·4	50·9	67·4	−2·0	Cuttack.
99·2	71·1	80·3	+2·2	89·2	71·3	77·3	0	88·9	71·4	78·2	+1·2	85·3	57·6	73·1	−0·4	83·8	51·1	67·1	+0·3	74·2	42·2	59·3	−1·2	Hazaribagh.
100·3	75·9	84·9	+0·9	94·4	75·7	83·1	−0·4	92·5	77·2	84·1	+0·6	91·7	62·8	78·6	−0·6	86·5	52·4	72·0	+1·6	77·2	45·0	61·8	+0·3	Patna.
70·9	54·8	60·9	−0·2	71·1	55·7	60·9	+0·3	68·1	54·3	59·5	+0·8	67·1	44·7	(a) 55·5	+1·1	61·7	38·7	48·4	+1·0	53·1	33·2	(b) 41·3	−0·6	Darjeeling.
103·6	74·7	87·5	+2·8	95·4	75·6	82·9	−0·3	97·5	74·3	84·8	+1·6	95·8	56·2	78·1	−0·5	90·4	49·9	69·6	+0·6	80·0	41·4	60·2	−0·5	Allahabad.
110·8	76·3	87·2	+1·7	96·7	76·8	83·3	−1·2	97·2	74·8	85·1	+1·3	96·8	?	?	?	93·6	50·2	69·8	+2·0	80·5	40·7	60·2	+0·6	Lucknow.
102·8	73·6	85·2	−0·3	94·8	75·4	83·0	−0·8	95·2	70·3	82·5	−0·3	94·1	52·5	75·1	−0·5	86·8	44·3	65·8	+1·0	75·1	39·0	57·7	+0·5	Meerut.
109·2	76·4	88·7	+1·4	99·2	75·9	84·9	−0·5	96·2	73·4	84·8	+0·2	96·2	57·4	79·9	?	92·2	51·4	70·8	+1·9	79·7	43·4	61·1	−0·4	Delhi.
107·0	77·9	88·7	+1·7	95·4	77·5	84·8	−0·1	99·0	74·9	86·1	+2·6	96·5	55·9	79·1	+1·1	93·1	49·1	70·9	+2·9	83·1	43·9	63·0	+2·0	Agra.
105·1	74·4	88·3	+3·7	95·1	74·4	83·5	+0·9	97·1	74·4	85·0	+2·0	97·6	57·9	82·1	+1·6	94·1	51·9	73·8	+3·3	85·1	48·4	61·2	+1·8	Jhansi.*
104·5	73·7	84·7	+2·6	93·0	73·6	81·4	+1·5	91·9	70·6	81·2	−0·3	93·2	48·8	74·0	−1·3	88·7	42·4	66·5	+0·7	82·0	36·8	59·8	+0·6	Ajmere.
100·0	72·1	81·9	+3·9	90·1	70·5	77·8	+1·2	89·3	70·1	78·6	+1·3	89·8	58·6	75·5	+0·2	87·1	52·6	69·5	−0·1	80·5	46·1	63·9	+0·5	Saugor.
99·7	71·7	84·7	+2·5	92·2	71·2	78·7	+0·8	91·5	71·6	79·8	+1·3	91·8	51·5	75·0	+1·0	87·3	42·7	66·7	0	80·5	36·0	59·0	−1·7	Jubbulpore.
113·6	75·5	94·2	+1·9	109·6	73·2	89·7	−0·2	104·4	74·0	88·1	+0·7	103·4	53·4	78·4	+0·8	92·3	48·1	68·5	+2·9	81·3	42·9	58·0	+1·5	Mooltan.
109·3	74·4	92·0	+3·7	104·4	75·1	85·8	−0·8	100·6	71·3	85·1	+2·2	99·6	52·9	76·5	+2·0	88·6	44·5	65·2	+2·8	73·6	40·6	55·2	+2·0	Lahore.
113·0	71·3	90·0	+0·4	109·5	67·7	85·2	−2·0	100·0	62·0	81·2	−0·8	96·5	47·5	71·9	+1·0	88·9	35·4	60·2	+1·6	71·0	36·1	51·2	+0·3	Peshawar.
82·2	57·9	68·1	−0·1	76·5	60·0	66·6	−0·2	78·0	54·4	65·3	−0·2	74·0	50·7	61·9	+1·2	67·7	43·0	54·2	+0·2	64·5	30·9	46·5	−0·8	Ranikhet.
76·2	56·3	64·2	−0·4	73·7	56·4	63·3	−0·1	70·9	54·3	61·4	−0·3	70·4	46·4	58·2	+1·4	66·7	39·4	50·8	+0·3	66·8	32·4	45·5	0	Chakrata.
98·1	73·1	82·0	+3·8	87·2	70·1	78·2	+1·3	89·2	69·6	79·0	+1·5	90·2	52·6	75·5	+0·1	87·2	44·6	67·5	−0·3	82·3	37·6	63·0	−0·7	Indore.*
105·1	74·9	86·6	+2·8	93·8	74·8	82·4	+0·9	97·7	73·4	82·2	+0·3	96·3	54·0	78·7	−2·0	95·1	48·9	72·7	−1·3	91·5	41·3	67·4	−0·8	Deesa.
98·3	74·9	86·1	+2·1	94·3	73·7	84·8	+2·7	102·4	72·6	84·2	+2·6	95·7	62·2	79·7	0	93·3	56·5	75·2	+1·1	88·5	50·7	68·9	+1·9	Karachi.
89·7	73·9	81·2	+0·3	87·4	76·1	80·9	+1·0	90·1	75·0	80·8	+1·1	89·6	72·8	81·4	+0·3	90·6	69·0	78·2	−0·9	89·1	66·0	75·1	−0·9	Bombay.
84·1	65·2	70·9	+0·8	83·9	62·9	71·0	+1·5	85·2	64·8	72·1	+1·8	87·1	56·0	72·3	0	87·0	53·9	71·0	+0·2	85·8	52·7	69·1	−0·3	Belgaum.
105·1	71·6	83·6	+3·4	92·3	72·5	80·8	+0·6	93·3	74·0	81·9	+1·6	94·7	58·6	80·0	+1·2	91·1	49·2	72·8	+0·1	85·8	41·9	65·9	−0·9	Nagpur.
96·2	73·5	82·7	+2·2	97·6	69·7	82·5	+1·7	94·9	67·5	79·3	−0·8	93·2	60·1	79·6	+0·8	94·8	59·1	76·2	+1·0	89·2	55·1	71·6	−0·7	Bellary.
88·9	64·6	74·1	+1·8	89·1	65·4	74·0	+1·7	85·0	62·1	72·5	+0·2	85·0	59·7	73·3	+1·3	87·4	56·8	71·4	+1·6	84·0	53·3	67·9	+0·5	Bangalore.
102·9	75·0	86·5	+1·3	101·4	73·3	84·3	+0·3	96·9	71·2	81·7	−2·1	95·9	68·7	83·0	+1·9	91·2	64·6	79·1	+1·0	86·5	64·4	74·4	−1·6	Madras.
89·5	73·9	79·1	+0·8	89·6	73·0	78·7	+0·2	90·7	71·9	79·8	+1·1	90·3	72·9	80·2	+0·4	89·6	64·5	76·7	−1·2	91·2	61·8	75·7	+0·3	Rangoon.
89·1	75·0	80·5	+0·5	90·0	75·0	80·2	0	91·3	75·4	81·8	+0·4	91·3	74·4	81·8	+0·5	88·9	64·5	78·0	+0·1	85·8	59·2	72·6	+0·4	Akyab.

the mean of the Maximum and Minimum temperatures.

(a) Mean of 26 days.
(b) „ „ 21 „

Appendix to Section I.

TABLE III.—*Showing the mean monthly* HUMIDITY *and its variations from the average in thirty-four stations of India during 1897.*

Station.	January.		February.		March.		April.		May.		June.		July.		August		September.		October.		November.		December.	
	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.	Mean.	Variation.
	%		%		%		%		%		%		%		%		%		%		%		%	
Calcutta (Alipore)	61	−8	63	−2	61	−5	57	−11	68	−6	81	−2	84	−3	89	+1	85	−1	80	−1	72	−1	66	−4
Narayanganj	65	−3	62	−2	63	−3	68	−5	76	−4	83	−3	84	−3	85	−2	85	0	81	+2	72	0	71	+1
Chittagong	68	−5	70	0	75	+1	70	−4	75	−4	84	−2	88	+1	90	+3	89	+3	88	+5	Temperature not recorded.			
Sibsagar	84	−2	79	−2	75	−4	76	−5	87	+4	84	0	89	+5	87	+2	91	+5	89	+4	85	+1	83	−2
Silchar	69	−5	66	−4	72	0	67	−9	80	0	83	−2	83	−2	84	−1	85	+1	80	0	70	−6	71	−4
Cuttack	60	−4	63	+2	63	+2	55	−6	60	−4	?	?	78	−2	84	+3	82	+2	77	+3	70	+3	63	−1
Hazaribagh	57	+6	50	+8	39	+5	27	−1	36	−4	66	0	76	−9	84	−1	79	−5	69	+5	62	+8	55	+3
Patna	61	−6	47	−10	45	0	40	−1	55	0	73	+4	79	−3	85	+2	80	0	75	+6	66	+4	65	0
Darjeeling	88	+7	83	+3	67	−6	77	+1	86	−1	91	0	?	?	?	?	95	+1	92?	?	71	−9	77	+1
Allahabad	59	−7	40	−16	34	−8	22	−9	33	−4	52	−4	74	−7	85	+2	75	−4	66	0	64	+2	61	−5
Lucknow	66	+5	45	−7	41	−2	29	−5	34	−6	54	−2	73	−4	88	+8	73	0	?	?	59	+3	70	+11
Meerut	61	−4	47	−11	38	−11	32	−5	33	−7	45	−7	73	−1	82	+5	73	+3	51	−6	60	+4	58	−4
Delhi*	66	−8	51	−15	43	−7	31	−6	31	−7	47	−10	68	−4	82	+2	72	0	46	−5	52	−4	61	−2
Agra	57	−1	44	−5	33	−6	32	+4	37	+6?	56	+10?	74	0	83	+6	68	0	47	−2	51	+5	53	−1
Jhansi*	66	−1	45	−10	34	−5	22	−4	22	−13	47	−7	72	−4	87	+4	75	−1	45	−8	46	−6	50	−8
Ajmere	54	+1	43	−3	36	−5	35	0	35	−3	46	−6	75	+3	83	+7	75	+8	53	+4	51	+4	53	0
Saugor	51	+2	33	−8	39	+7	38	?	?	?	52	−1	71	−9	84	−1	76	−1	47	−9	39	−6	36	−11
Jubbulpore	66	+6	53	+1	40	+1	36	+6	27	−3	54	−6	78	−4	88	+4	80	+2	66	+1	60	+2	58	−1
Mooltan	53	−6	52	−2	40	−12	38	−6	27	−15	37	−9	54	−4	66	+4	58	−2	46	−7	49	−4	64	+8
Lahore	66	+3	60	+2	48	−2	42	+5	31	−2	42	+2	58	−3	75	+10	61	+4	45	−2	55	+5	66	+8
Peshawar	67	+5	62	+4	59	+2	62	+10	38	−1	36	−2	49	−4	67	+6	58	+4	42	−5	50	−3	61	+1
Ranikhet	67	+4	61	−1	52	−1	44	0	41	−9	62	−4	83	−3	90	+2	82	+1	65	+4	63	+4	61	+3
Chakrata	66	+4	57	−6	53	0	42	−1	36	−12	61	−6	88	−3	95	+3	87	+3	61	+1	61	+6	51	0
Indore*	58	−9	43	−2	31	−10	44	+3	37	−16	57	−15	79	−7	90	−1	89	+1	72	+6	62	+2	59	−2
Deesa	39	+2	31	+1	29	0	25	−3	43	+3	45	−9	71	−3	83	+8	78	+12	56	+14	42	+8	37	+1
Karachi	49	−7	54	−4	60	−5	69	−1	77	+4	74	−1	76	−2	77	−2	72	−5	70	+7	63	+9	56	+3
Bombay	67	−2	65	−3	71	−1	73	−1	73	−1	77	−5	88	+1	85	−2	85	0	77	−3	63	−7	62	−7
Belgaum	53	+6	43	+4	36	−5	50	−1	58	−3	78	−4	89	−1	89	0	86	+1	74	+2	47	−12	38	−12
Nagpur	60	+14?	53	+11?	39	+5	29	+1	24	−5	48	−12	75	−5	83	+4	70	+4	60	0	51	−4	49	−3
Bellary	49	−3	40	0	33	−3	34	−5	32	−12	44	−14	49	−14	53	−10	63	−1	55	−8	43	−19	40	−18
Bangalore	59	−2	54	+2	43	−7	46	−7	57	−5	69	−4	74	−3	77	−1	82	+6	75	0	62	−11	58	−10
Madras	81	+6	77	+3	76	+2	77	+3	69	+1	63	−2	65	−2	75	+3	85	+12	78	−2	79	−2	83	+4
Rangoon	67	+3	63	0	62	−2	64	−2	83	+5	87	−2	88	−2	90	0	89	0	88	+4	80	+2	70	−2
Akyab	74	+4	73	+5	78	+7	80	+7	83	+5?	91	+4?	91	+2	92	+4	89	+3	88	+5	84	+4	80	+5

*Mean of 8 hours.

Appendix to Section I.

TABLE IV.—*Showing the monthly and annual RAINFALL and its variation from the average in the thirty-four Stations of India during 1897.*

STATION.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTAL.	
	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.	Actual.	Variation.
	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	nches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches	Inches.	Inches.	Inches.
Calcutta (Alipore)	0·04	−0·28	1·59	+0·48	1·37	+0·07	0·83	−0·65	3·78	−1·85	10·98	+0·09	13·45	+1·50	11·74	−0·76	5·04	−3·12	8·61	+4·91	...	−0·74	...	−0·37	58·33	−0·72
Narayanganj	0·10	−0·22	0·25	−0·83	2·84	−0.20	3·02	−2·57	10·81	+1·37	7·67	−5·42	7·99	−4·71	16·85	+4·89	0·98	+0·48	6·84	+1·93	0·78	−0·14	...	−0·19	67·13	−5·21
Chittagong	...	−0·44	...	−1·23	2·43	+0·24	0·16	−4·51	4·20	−5·68	21·37	−0·92	22·15	−0·75	21·99	+2·08	15·13	+1·79	11·67	+5·69	0·35	−1·22	0·38	−0·24	99·80	−5·19
Sibsagar	0·16	1·06	1·37	−0·81	6·68	+1·92	7·82	−2·10	14·04	+2·64	12·16	−2·04	19·65	+3·78	22·83	+6·65	11·59	−0·20	12·49	+7·40	1·53	+0·41	0·04	−0·54	110·30	+16·05
Silchar	0·98	+0·33	0·43	−1·96	10·94	+2·96	2·80	−11·02	12·94	−3·32	27·29	+7·25	18·97	−1·14	21·81	+3·01	13·91	−0·13	2·87	−3·66	2·59	+1·22	...	−0·58	115·58	−7·04
Cuttack	...	−0·36	0·64	+0·12	5·78	+4·51	1·89	+0·67	0·15	−3·48	8·84	−2·41	11·41	−0·98	17·72	+5·56	7·00	−3·47	6·79	+1·33	2·24	+0·80	0·11	−0·27	62·37	+2·02
Hazaribagh	0·37	−0·15	2·16	+1·37	2·01	+1·30	0·45	+0·08	1·80	+0·02	11·00	+2·56	13·12	−0·74	9·39	−3·51	8·10	−0·02	5·49	+2·13	0·02	−0.32	...	−0·20	53·91	+2·50
Patna	...	−0·68	0·46	−0·06	0·85	+0·49	0·95	+0·67	0·23	−1·48	28·87	+21·58	9·80	−1·34	8·51	−2·00	3·25	−4·53	7·13	+4·26	...	−0·22	...	−0·15	60·05	+16·54
Darjeeling	0·41	−0·30	0·04	−1·06	2·63	+0·61	2·92	−1·20	5·41	−2·47	14·68	−0·85	23·57	−7·75	27·62	+1·28	8·59	−9·10	13·03	+7·55	0·49	+0·26	0·10	−0·10	99·49	−22·13
Allahabad	0·81	+0·05	0·03	−0·43	0·16	−0·25	0·01	−0·11	...	−0·31	5·44	+0·31	9·52	−2·69	22·92	+12·64	2·74	−3·77	4·33	+1·84	...	−0·26	...	−0·22	45·94	+6·82
Lucknow	1·10	+0·22	...	−0·36	0·83	+0·49	...	−0·12	0·66	−0·19	1·75	−3·68	13·52	+2·24	10·04	−1·50	2·55	−4·30	0·01	−1·38	...	−0·09	...	−0·45	30·46	−9·12
Meerut	0·20	−0·92	0·05	−0·72	0·35	−0·22	0·03	−0·31	0·18	−0·55	2·46	−1·09	14·89	+5·48	5·96	−1·86	2·96	−1·36	...	−0·46	...	−0·09	...	−0·39	27·08	−2·59
Delhi	0·11	−0·98	...	−0·60	0·41	−0·29	0·01	−0·32	0·52	−0·21	1·95	−1·33	5·64	−2·99	8·61	+0·96	3·96	−0·31	...	−0·42	...	−0·10	...	−0·43	21·23	−7·02
Agra	0·37	−0·20	...	−0·29	0·03	−0·23	0·06	−0·09	0·76	+0·13	3·73	+0·90	14·50	+4·81	13·99	+6·92	6·26	+1·86	0·05	−0·36	...	−0·06	...	−0·27	39·75	+13·18
Jhansi	1·86	+1·27	...	−0·28	...	−0·37	0·02	−0·11	0·14	−0·17	6·34	+1·47	7·80	−5·05	8·43	−2·62	1·91	−3·68	0·14	−0·58	...	−0·07	...	−0·24	26·64	−10·73
Ajmere	...	−0·35	...	−0·31	0·07	−0·35	0·27	+0·12	0·27	−0·36	0·22	−2·40	8·03	+1·10	12·39	+4·03	1·07	−2·06	0·97	+0·63	...	−0·21	...	−0·29	23·29	+0·45
Saugor	1·81	+1·13	...	−0·52	...	−0·24	0·09	−0·08	...	−0·56	8·55	+1·13	10·72	−5·79	14·05	+1·69	5·51	−2·50	0·98	−0·29	...	−0·36	...	−0·57	41·71	−6·06
Jubbulpore	2·10	+1·42	0·51	+0·02	0·17	−0·35	0·72	+0·51	0·23	−0·25	7·99	−0·55	9·69	−9·23	19·67	+4·78	8·18	−0·15	0·62	−1·02	...	−0·40	...	−0·26	49·88	−5·78
Mooltan	0·11	−0·31	0·36	−0·09	0·15	−0·31	0·65	+0·38	...	−0·42	0·09	−0·34	1·96	−0·37	8·74	+7·20	...	−0·65	...	−0·08	...	−0·07	0·61	+0·34	12·57	+5·28
Lahore	1·42	+0·52	0·78	−0·15	0·44	−0·52	0·11	−0·44	0·41	−0·42	2·41	+0·53	3·25	−3·59	9·87	+4·92	0·33	−1·77	...	−0·46	...	−0·13	1·23	+0·77	20·25	−0·85
Peshawar	3·23	+1·66	1·14	−0·09	2·06	+0·19	2·72	+0·94	1·44	+0·84	0·47	+0·19	0·54	−1·16	4·76	+2·55	0·41	−0·26	...	−0·20	...	−0·64	1·25	+0·71	18·02	+4·74
Ranikhet	2·00	−0·63	2·33	+0·20	2·48	+0·51	1·26	+0·09	1·16	−1·38	4·32	−2·02	19·05	+5·87	17·51	+3·96	8·73	+1·74	0·06	−1·40	...	−0·28	...	−0·55	58·90	+5·83
Chakrata	5·90	+2·90	3·78	+0·41	4·54	+1·78	1·99	+0·55	1·19	−1·36	4·05	−4·28	25·03	+6·20	28·72	+10·98	4·16	−2·15	...	−0·85	...	−0·38	0·48	−0·63	79·84	+13·17
Indore	0·07	−0·21	...	−0·26	...	−0·05	0·02	−0·16	...	−0·51	1·98	−4·67	9·21	−0·46	8·29	+0·70	10·87	+3·24	0·39	−0·82	...	−0·28	...	−0·20	30·83	−3·68
Deesa	0·07	−0·09	...	−0·15	...	−0·09	0·05	+0·01	...	−0·17	0·50	−1·96	9·02	−0·58	7·29	−0·57	4·42	+0·82	0·54	−0·08	...	−0·15	...	−0·04	21·89	−3·05
Karachi	0·10	−0·63	0·17	−0·15	...	−0·16	...	−0·14	...	−0·04	...	−0·51	3·77	+0·55	6·44	+4·74	1·59	+0·04	..	−0·05	...	−0·18	...	−0·09	12·07	+4·18
Bombay	0·01	−0·12	...	−0·02	...	−0·01	...	−0·03	...	−0·59	13·84	−6·78	30·75	+5·94	13·82	−1·24	20·49	+9·67	2·62	+0·81	...	−0·50	...	−0·05	81·53	+7·08
Belgaum	...	−0·07	...	−0·03	...	−0·48	2·16	+0·17	4·21	+1·46	5·35	−3·96	16·72	+1·30	12·50	+3·46	3·65	−0·10	·53	−1·73	...	−1·40	...	−0·26	48·12	−1·64
Nagpur	0·66	+0·05	0·20	−0·19	0·15	−0·46	0·56	+0·11	0·18	−0·53	4·96	−3·78	12·55	−1·01	13·04	+3·45	5·32	−2·87	0·91	−1·38	...	−0·55	...	−0·46	38·83	−7·62
Bellary	...	−0·11	...	−0·03	...	−0·46	0·07	−0·69	1·07	−0·89	2·65	+0·80	0·30	−1·13	1·23	−1·06	13·23	+9·45	3·97	−0·16	0·15	−1·11	...	−0·22	22·67	+4·39
Bangalore	0·01	−0·18	0·01	−0·12	0·64	+0·08	0·06	−1·27	6·84	+2·12	1·13	−2·16	3·85	−0·17	4·66	−1·14	10·32	+13·18	4·80	−1·50	0·47	−1·68	0·03	−0·60	41·82	+6·56
Madras	0·46	−0·40	0·53	+0·25	0·06	−0·33	0·07	−0·54	0·18	−1·85	3·21	+1·14	2·37	−1·47	7·83	+3·18	11·01	+6·31	3·56	−7·28	7·50	−6·05	1·69	−3·63	38·47	−10·67
Rangoon	...	−0·12	...	−0·27	0·12	−0·06	0·02	−1·80	13·03	+2·24	15·45	−3·17	16·92	−4·68	23·24	+4·56	12·31	−3·82	11·23	+3·93	1·71	−1·05	0·38	+0·31	04·41	−3·91
Akyab	...	−0·14	...	−0·19	4·93	+4·47	0·98	−0·62	9·95	−2·71	49·38	+0·15	39·87	−11·53	45·74	+6·49	20·98	+4·04	18·87	+7·48	2·18	−1·20	...	−0·48	199·08	+5·76

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SECTION II.

EUROPEAN ARMY OF INDIA.

India.

2. The health of the European army of India was much worse in 1897 than in the preceding year. This was due partly to the increase of malaria consequent on the prolonged drought being followed by an abundant monsoon, and partly to exposure and injury on field service.

The weather characteristics of the year 1897 are summed up in Section I, pages 7 and 8.

Year.	Strength.	Ratio per mille of Strength.				
		Admissions into hospital.	Constantly sick.	Deaths.	Invaliding.	Total loss.
1886—95 . .	677,877	1,457	83	15·16	24	39
1896 . . .	70,484	1,387	94	14·84	28	43
1897 . . .	68,395	1,557	101	22·93	33	56

The chief causes of admission were venereal diseases and ague. Among the diseases with increased admission rates were cholera, fevers, dysentery, and diarrhœa. On the other hand, the admission rates from influenza, small-pox, respiratory diseases, hepatitic diseases, and venereal diseases, were lessened. Venereal diseases caused 31 per cent. of the total sickness, and ague 25 per cent.

The chief causes of death were enteric fever, dysentery, abscess of the liver, and cholera. Among the diseases with increased mortality were dysentery, diarrhœa, cholera, enteric and other fevers, heatstroke, hepatic abscess. On the other hand, the mortality from small-pox and diseases of the respiratory organs was lessened. Enteric fever caused over 39 per cent. of the total deaths, dysentery 11 per cent., hepatic abscess nearly 6 per cent., and cholera over 5 per cent.

The chief causes of invaliding (Table LIII) were, in order, syphilis and gonorrhœa, debility, malarial fevers, and tubercle of the lungs.

Commands.

3. In Table I the ratios of the four commands are placed side by side for comparison. Bengal had the highest mortality from cholera, heatstroke, and hepatic abscess; the Punjab the highest from small-pox, enteric fever, ague, remittent fever, tubercle of the lungs, pneumonia, other respiratory diseases, and dysentery; Madras the lowest from enteric fever and pneumonia; and Bombay the lowest from ague, heatstroke, and dysentery. The percentage of enteric fever was highest in the Punjab; of dysentery in Madras; of hepatic abscess and cholera in Bengal. The total death-rate of Madras, which was the lowest, only reached 56 per cent. of the height of that of Bengal, which was the highest. Bengal

had the highest constantly sick, admission, and death-rates, and all the commands were less healthy than in the previous year.

Burma.

4. The following table gives vital statistics of the European troops in Burma as a whole, whereas Table II contrasts Burma Coast with Burma Inland :—

Period.	Strength.	Ratio per 1,000 of strength.				
		Admissions into hospital.	Constantly sick.	Deaths from		
				Cholera.	Other causes.	Total.
1890 . . .	4,712	1,743	102	...	20·80	20·80
1891 . .	4,623	1,589	92	2·38	17·74	20·12
1892 . . .	4,316	1,491	91	...	14·83	14·83
1893 . . .	3,928	1,461	96	·25	12·73	12·98
1894 . . .	3,940	1,465	93	·25	9·39	9·64
1895 . . .	4,045	1,410	96	·99	8·41	9·39
1896 . . .	4,174	1,514	109	·48	6·71	7·19
1897 . . .	4,060	1,467	107	...	10·84	10·84

Burma in 1897 was distinguished by the prevalence of influenza, remittent fever, simple continued fever, and venereal diseases.

Official Hill Stations.

5. The stations shown in Group XII-A in this report are so shown on account of their height above sea-level; but they are not all officially known as "Hill Stations" by the military authorities. Official "Hill Stations" are divided into permanent and temporary locations, and against the names of the stations at which such locations exist a mark has been put in Table D of 1897. In some of these stations—Darjeeling, Dalhousie, Wellington—there exist both convalescent depôts and locations for healthy men; but the medical returns of those stations mix up the statistics of the two classes of men, and there is no means of separating them. In the report of the Sanitary Commissioner with the Government of India it has been the practice to include such stations in Group XII-B. This practice will be continued until separate sets of returns can be obtained. Then it will be possible to give here some accurate information as to the comparative healthiness of the official hill stations. Meanwhile, it may be said that, as far as can be judged under present circumstances, their statistics would not greatly differ in 1897 from those actually shown in Group XII-A.

Field Forces.

6. Towards the end of Tables III, IV, and LIII will be found the statistics of the forces which took the field in 1897. The Tochi Force, which was for the most part condemned to inactivity in the trying Tochi Valley, was the most unhealthy, suffering severely from dysentery, diarrhœa, enteric fever, remittent fever, and ague. Next came the Tirah Force, whose statistics were unfavourably influenced by severe fighting; followed, in order, by the Malakand, Kohat-Kurram, and Mohmund Forces.

7. The following table shows that, judging by the constantly sick-rate, Burma Inland and the Gangetic Plain were the most unhealthy groups for the decennium, and the Hills and the Deccan the most healthy. It also shows that the 1897 constantly sick-rate of every group, except the Western Coast, was higher than its corresponding decennial ratio, and that the rise was greatest in the case of Central India, the Burma Coast, the Hills, and the Deccan. As compared with the decennial ratios, there was decrease of cholera mortality in eight groups, and increase of enteric fever mortality in nine:—

Geographical Groups.

		Ratio per 1,000 of Strength.												
		I	II	IV	V	VI	VII	VIII	IX	X	XI	XIIa	XIIb	
		Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts, and Sanitaria.	India.
1886—95	Constantly sick	89·0	99·4	92·9	96·0	88·9	83·9	88·0	79·1	81·7	82·2	70·9	88·0	82·6
	Death—Cholera	·21	1·71	·78	4·31	1·14	1·13	1·65	·74	...	·30	·61	·78	1·33
	Death—Enteric fever	3·02	2·47	3·13	5·98	7·03	5·30	7·00	4·69	2·14	2·79	5·56	4·98	5·28
1896	Constantly sick	115·7	110·9	79·6	100·7	92·3	95·1	120·1	89·7	78·2	78·4	89·6	88·5	93·8
	Death—Cholera	·76	·37	1·22	1·07	·21	...	2·64	1·58	·64	1·12	...	...	·89
	Death—Enteric fever	1·53	·37	4·07	11·61	5·21	5·79	8·39	6·01	10·28	5·34	8·20	3·62	6·31
1897	Constantly sick	117·2	105·8	95·4	107·9	99·8	103·8	127·7	100·5	76·9	93·9	98·4	88·4	101·4
	Death—Cholera	...	...	·88	6·59	·15	·20	2·60	·56	...	...	...	..	1·17
	Death—Enteric fever	6·66	1·12	·44	10·24	9·77	12·64	20·16	6·43	3·40	5·67	8·36	3·17	9·01

In Table II the vital statistics of the groups for 1897 will be found placed side by side to facilitate comparison. Central India had the highest constantly sick, admission, and death-rates; the Western Coast the lowest constantly sick-rate; the Hill Convalescent Depôts the lowest admission-rate; and the Burma Inland group the lowest death rate. Burma Coast had the highest admission-rate from influenza and venereal diseases; Burma Inland the highest from remittent fever and simple continued fever; Bengal-Orissa the highest from respiratory diseases other than pneumonia, dysentery, and hepatic abscess; Gangetic Plain the highest from cholera and small-pox; Indus Valley the highest from ague and pneumonia, the Convalescent Depôts being equal in pneumonia; Central India the highest from enteric fever and diarrhœa; the Deccan the highest from tubercle of the lungs; Southern India the highest from congestion of the liver; and the Hills the highest from rheumatic fever.

The percentage of enteric fever to total admissions in 1897 was greatest in the Hills; of ague in the Indus Valley; of remittent and simple continued fevers in Burma Inland; of pneumonia and hepatic abscess in the Convalescent Depôts; of other respiratory diseases in Western Coast; of dysentery in Bengal-Orissa, where also hepatic abscess was nearly the highest; and of venereal diseases in Burma Coast.

8. The death ratios of all stations will be found in Table III, and the actuals in Table IV. The highest ratios among the large garrisons with a strength of over 1,000 were those of Agra, Peshawar, Meerut, Mhow, and Umballa, and all were

Stations.

higher than the corresponding ratios of 1896. All these stations had increased mortality from enteric fever; some, increased mortality from malarial fevers, from dysentery, from hepatic abscess. In Table V will be found some explanation regarding the unhealthiness of these and other stations. The health statistics of some stations, such as Cawnpore, Umballa, Dalhousie, Rawalpindi, and Thobba, are said by the medical officers to have been unfavourably affected either by the withdrawal of the healthy men for field service, or by the reception of broken-down men from field service.

Regiments.

9 The statistics of individual regiments and of the different arms of the service may be studied in Table XIV. The infantry had the highest admission and constantly sick-rate, as in the previous year; the artillery the highest invaliding rate, as in 1896; and the engineers the highest death-rate. The 1st Battalion, East Surrey Regiment, at Jhansi, had the highest constantly sick-rate, and it may be noted that it was a regiment at Jhansi which had the highest constantly sick ratio in 1896. The 1st Battalion, Shropshire Light Infantry, which suffered from cholera at Sitapur, and the 2nd Battalion, York and Lancaster Regiment, which suffered severely from enteric fever at Agra, had the highest death-rates.

Principal diseases.

10. Sickness and mortality having been studied in their relation to India, to commands, to geographical groups, to stations and to regiments, it will be convenient now to discuss the statistics of some of the chief diseases.

Influenza.

11. At the end of 1896 influenza was falling. In the course of 1897 there were three abrupt monthly rises,—in March, in June, and in October-November. The number of admissions fell suddenly again in December (Table VI). The following shows the decrease of total in 1897. It also shows the monthly progress and the annual fluctuations of the disease since 1890, the first epidemic year :—

Period.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Per mille of strength.
1890	...	3	473	1,451	248	69	13	2	3	...	...	1	2,263	33·4
1891	1	...	1	16	77	91	112	29	20	2	2	21	372	5·5
1892	113	53	354	241	57	4	32	8	...	...	...	...	862	12·7
1893	1	...	...	15	4	...	...	...	...	...	...	1	21	·3
1894	7	9	12	70	101	30	7	7	...	2	...	...	245	3·4
1895	14	7	52	156	66	35	17	1	5	13	23	165	554	7·8
1896	202	65	140	30	12	7	3	3	88	128	50	20	808	11·5
1897	12	10	31	9	11	30	8	8	...	54	87	12	272	4·0
Total	410	147	1,063	1,988	576	266	192	58	116	199	162	220	5,397	...

The actual maximum of the individual years of the eight occurred in various different months, but over the eight-year period as a whole the greatest number of cases occurred in April and March, and the smallest number in August; 82 per cent. of the whole in the first six months of the year, and only 18 per cent. in the last six months. Geographical Groups I, II, V, VI, VIII, IX, XI, XII*a*, and XII*b* were attacked both in 1896 and 1897; Group VII, which had been affected in 1896, escaped in 1897; while Groups IV and X were spared in both years, as well as in 1895 and 1894. These two last groups lie on opposite sides of India, and contain, respectively, the European garrisons of Calcutta and Bombay, and the reason why they should escape is at present not obvious. Twelve stations only were attacked in 1897, against twenty-five,

three of them suffering only in 1897, and nine in both years, while some escaped that had been affected in 1896. In Table VI it may be seen that Lucknow,* Rangoon, Ranikhet, and Kasauli, among stations, had the greatest numbers of cases, Lucknow and Rangoon having been at the head of the list also in 1896. At Lucknow, Ranikhet, and Kasauli the outbreaks were compact, and were confined to two, or, at the most, three months; while at Rangoon the disease did not finally cease till after the first eight months of the year. As may be seen in Table IV, the average number of men constantly sick with influenza was 10, against 61 in 1896, and the average duration of a case 13 days, against 28. The returns deal, of course, only with those cases which were admitted into hospital, but there were mild cases not admitted. Particulars regarding the death from influenza will be found in Tables III and IV. In Section III, paragraph 53, is given a table showing the relation, year by year, of influenza to pneumonia, and of the influenza of the European troops to that of the native troops and to that of the prisoners. The admission ratio of the first was a little lower than that of the second, less than half that of the third.

Cholera.

12. General questions regarding the etiology, spread, and prevention of cholera, and the circumstances, so far as they are of importance, attending the most severe outbreaks of 1897, will be discussed in Sections VI and X of this report.

The amount and proportion of cholera were greater than in the previous year, but the ratios were somewhat lower than those of the decennium, as may be seen in the following table:—

Period.	Admissions.		Deaths.	
	Number.	Per mille of strength.	Number.	Per mille of strength.
1886—95	1,280	1·9	901	1·33
1896	70	1·0	63	·89
1897	117	1·7	80	1·17

The distribution of the cholera of 1897 by stations and seasons is shown in Table VII. The disease was at its maximum in September; but in only three months of the year—January, March, and December—was there an absence of cases. Sitapur with 65 cases, or about 56 per cent. of the total for India, and Muttra with 9, suffered most. The regiments yielding the cases at these two stations respectively, were the 1st Battalion, Shropshire Light Infantry, and the 5th Lancers.

Small-pox.

13. Information regarding small-pox in 1897 will be found in Tables I—IV and LIII, and information about vaccination in Section VII, Appendix A, Statement VII.

The admission-rate was a little less than a quarter, and the death-rate a little less than a half, that of the preceding year; the former being reduced from 1·7 to 0·4, and the latter from 0·14 to 0·06. There were only 24 cases with 4 deaths, against 122 cases with 10 deaths. The admission-rates and death-rates were both below the decennial ratios of 1886-95. Not more than three cases occurred in any one station. In Burma Coast and WesternCoast, as in the pre-

* The medical officer in charge at Lucknow is somewhat inclined to think that the diagnosis should have been Dengue rather than Influenza.

vious year, and in Indus Valley, Southern India, and the Hills, small-pox was absent.

14. Ague gave rise to over 25 per cent. of the admissions from all causes.

Ague, Remittent Fever, Simple Continued Fever, Malta Fever.

The abundant and widely-distributed rainfall following on prolonged drought favoured the prevalence of malaria. —

Period.	Intermittent Fever.		Remittent Fever.		Simple Continued Fever.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95 . .	353	·18	9	·54	57	·04
1896 . .	239	·10	14	·40	30	...
1897 . .	395	·41	25	·60	43	·01

The ratios were above those for the decennium. A reference to Tables II and X shows that in 1897 ague ratios were high in the Indus Valley, Central India, and Upper Sub-Himalayan, and low in Burma Coast, Burma Inland, the Hills, Southern India, and Western Coast. And that that is a usual state of things, as regards the first three and the last two, may be seen from the following :—

Period.	Ratio per 1,000 of Strength.												
	I	II	IV	V	VI	VII	VIII	IX	X	XI	XIIa	XIIb	
	Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayas.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts and Sanitaria.	India.
1886-95	194·5	531·2	381·8	216·9	465·5	632·4	496·9	228·0	164·3	119·0	291·0	320·4	352·9
1896	165·3	157·1	204·9	183·4	248·7	523·5	376·1	265·1	75·8	80·3	163·9	178·8	239·0
1897	47·4	132·6	383·9	246·7	422·6	761·8	584·2	333·3	182·2	139·4	128·1	158·7	394·7

The great fall of ague and influenza in Burma Coast was accompanied by a great rise in simple continued fever; and the medical officer suspects, and probably with justice, that the change is due to difference of opinion among the medical officers in the matter of the diagnosis of those fevers. In Table X it may be seen that the most malarious month of 1897 was November, and the least malarious February. At Barrackpore and Neemuch malaria is said to be encouraged by the deficiency of the drainage. At Nowgong malarial fever was associated with a debilitated and scorbutic condition of the men. Irrigation is said to be increasing the dampness of the climate of Mooltan, and therefore malaria. The medical officer at Karachi points out that ague now appears in the returns to the exclusion of simple continued fever, whereas many cases of the latter used to be returned at that station. He notices also the frequency of

melæna. At Hyderabad malaria was increased by the unusual extent of country flooded by the Indus. The medical officer at Quetta says—

> The parasite seen in Quetta in cases contracted locally is the unpigmented quotidian variety, *viz.*, small intracorpuscular unpigmented bodies, whereas in cases contracted in Sind crescents and spherical extracorpuscular pigmented bodies are of common occurrence thus showing a more malignant form of malarial infection in Sind.

The reports of the results of the prophylactic issue of quinine were, on the whole, favourable, though some medical officers were doubtful.

Both morbidity and mortality from remittent fever increased in 1897. The ratios from this disease were high in the Tochi and Malakand Field Forces, mortality being high in the former. The geographical group which showed the greatest increase was Burma Inland. The medical officer blames the water-supply, which comes from what "is not much better than a large marsh," and also the deficient drainage; and ascribes the remittent fever to malaria, which was unusually prevalent. The incidence of the disease on stations may be studied in Tables III, IV, and XI. Remittent fever, like ague, in 1897 was most prevalent in November, and least prevalent in February. This distribution is not the same as in 1896. All the fatal cases were ascribed to malaria or "climate", and the *post mortem* appearances on the whole were in accordance with the diagnosis; though in four cases there were some swelling of the lower Peyer's patches, in one case an ulcer on the ileo-cæcal valve, in one case small transverse ulcers with general peritonitis, in three cases a little lymph on the cerebrum, in one case small patches of pneumonia, and in one case pleuro-pneumonia with a localised inflammation of the liver suggestive of incipient abscess. In one case the enlarged spleen ruptured itself.

The rise in simple continued fever was greatest in Burma Coast, Bengal-Orissa, Central India, the Deccan, and Southern India, the stations with the highest ratios being Fort Allahabad, Benares, Thayetmyo, Pallavaram, and Mandalay. The medical officer at Mandalay was the only one to attempt an explanation, and that was that the men of the garrison were new to the country. The only fatal case returned as simple continued fever died from hyperpyrexia, and the *post mortem* examination showed a greatly enlarged spleen, unusually prominent Peyer's patches, signs of commencing inflammation at the bases of the lungs, and congestion of the kidneys. Possibly an examination of the splenic pulp, or of the contents of the gall-bladder, might have revealed the presence of the enteric bacillus. In fact, as in former years, some medical officers note that cases returned as simple continued fever may have been mild cases of enteric fever; and they differ in practice as to where they draw the line between simple continued fever and enteric fever, as well as between simple continued fever and ague. The medical officer at Rangoon notes that what is called by one medical officer "influenza" may by another be designated "simple continued fever." As an aid to diagnosis Widal's test was used at Dagshai and Quetta and at the former cultivations were made from the spleen in some cases.

On page 23 of the report for 1896 was noticed the assertion that Malta fever has been shown to occur at Subathu. On this point the medical officer at Subathu in his report for 1897 says—

> It has lately been suggested at home that many of the cases described as "typhoid" in India, and more especially in Subathu and neighbourhood, are in reality cases of Mediterranean or undulant fever. It is not unreasonable to suppose that a man coming from a Mediterranean station, or from some locality where undulant fever is endemic, and having

absorbed the specific poison of that disease, may have a recrudescence in India. But, so far as careful observation entitles me to form an opinion, I am convinced that few, if any, such cases have occurred in Subathu during the past year. Certain of the more dubious cases returned as "remittent" may possibly have partaken of this nature; but all the cases returned as "enteric" were very deliberately diagnosed; each and every one was clinically indistinguishable from "typhoid" as observed at home; and in every fatal case the pathological appearances were characteristic of that disease.

As a matter of fact, no cases of Malta fever were *returned* in India; but the question whether the disease [1] really *occurs* in India is well deserving of further and painstaking investigation. Good authorities [2] are of opinion that the fevers of India require, and will obtain, greater differentiation.

Enteric Fever: Soil and allied topics. [3]

15. The reaction against the extreme opinion that enteric fever is exclusively a water-borne disease appears to have set in, and in England in 1897 the *rôle* of the soil in the nurture and dissemination of the enteric bacillus has been magnified. Water-carriage of enteric fever, according to Robertson of Sheffield, is, as all acknowledge, a very important subject, but, at the same time, he thinks that the amount of attention it has received has to a large extent put out of account the relatively much more important subject of dust- and filth-borne enteric fever. In his experience certainly over 80 per cent. of cases of enteric fever in town districts cannot be accounted for by water or milk-carriage of the infection, or by direct infection. As he estimates that about 10 per cent. of the cases of enteric fever are due to direct infection, but a small balance is left over for water-borne enteric fever. He looks upon the soil as the home of the bacillus, the winds as its usual, the waters as its occasional, carriers. To the immediate acceptance of these views two difficulties, perhaps not insuperable, give pause. In the first place, Dr Robertson himself was never able to find the enteric bacillus in polluted soil, unless he had previously placed it there himself in the course of his experiments. But, according to many authorities, matters are in exactly the same case as regards water. In the second place, experiments such as those of Germano, referred to on page 24 of the report for 1896, and those of Neisser, go to show that the enteric bacillus cannot survive drying sufficient to make it portable by the air; though those of Flügge somewhat modify that conclusion, and Fischer seems to be of opinion that the enteric bacillus can survive a good deal of drying. It must be remembered, too, that if the wind cannot transport undried enteric bacilli, flies can. The enteric bacillus is said to have been found in the dust of enteric fever barracks in French and Russia; but in this case, as in that of water, some searchers are more easily satisfied than others. Thus, Childs says of the enteric bacillus: "This parasite has practically never been found in the surroundings of man, neither in air, nor soil, nor water, nor food, nor in the sewers or deposits of filth, which constantly receive countless hosts; except in those cases where it has been implanted for the purposes of experiment, and in certain rare instances where it has been detected in connexion with some typhoid outbreak." Dr. Robertson made some very interesting experiments on the behaviour of the enteric bacillus in fields in the open air, the result of which, in brief, was that the enteric bacillus left to itself perished in a comparatively short time, but if fed by the addition of organic matter to the soil, resisted the changes of season, and flourished as long as he had opportunity to observe. Similar results were obtained by Sidney Martin, working for the Local Government Board, and are referred to by Sir Richard Thorne in a lecture emphasising the importance of the soil in the causation of enteric fever

and some other diseases, the word soil being used in the part of the lecture that concerns enteric fever in its ordinary earthy meaning. Martin found that a porous, organically contaminated soil, containing about 35 per cent. by weight of moisture, and kept at a temperature of about 37° C., was the best adapted to the growth of the enteric bacillus. Childs postulates for the occurrence of enteric fever, firstly, the presence of the specific microbe in the soil; secondly, a population susceptible or predisposed to infection; thirdly, pollution of the soil, with certain conditions of porosity affected by temperature and moisture or the oscillations of the ground water. In connexion with the question of soil, Thorne, Robertson, and Caley refer to the fact that through a period of years, and notwithstanding a general change in the amount of enteric fever all over the country, the same parts of England remain maximum and minimum. The maximum parts are the northern counties of England and the south-western of Wales. Parsons connects this with the comparative backwardness of sanitation and the survival of the midden system in the north of England, while Robertson points out the need for further inquiry. There are some indications that certain parts of India are more constantly distinguished by high ratios of enteric fever among European soldiers than others (paragraph 20); but sufficient data have not yet been collected to justify a definite opinion. It has been noticed in England that where a part of the country usually comparatively free has been severely attacked, it takes a year or so to recover itself; and this is held to indicate a gradual healing of the soil" in the absence of opposing circumstances. On the other hand, Childs, the author of the phrase "healing of the soil" points out that where the contamination is continuous, drastic sanitary operations are a necessary preliminary to the healing of the soil. On the other hand, Poore shows that in China, where excreta are religiously collected and placed on the fields, the mortality from enteric fever among British soldiers is low. According to Robertson, the largest number of organisms is not at the surface but at a depth of 12 to 24 inches below the surface; and in an undisturbed soil the number of organisms rapidly diminishes at a depth of 3 to 4 feet from the surface, though faults and porous strata may allow them to be carried down to great depths. The enteric bacillus planted at a depth tends to grow upwards. The effect of sunlight is limited to those organisms actually on the surface. But the chief self-cleansing processes of the soil take place neither on the surface nor in its depths, but in its upper layers. "Burying excreta," says Poore, "as is sometimes done [*i.e.*, too deeply, and firmly covered in] is like laying down port: the bacilli are not destroyed, and only require digging up to spread infection." The researches of Germano have been referred to above. These have now been completed; and, premising that Germano's argument is that an organism that cannot survive drying cannot be carried alive by the wind, his results, in brief, are :—The cholera spirillum, the plague bacillus, and the enteric bacillus cannot resist drying; the diphtheria bacillus, the pneumococcus, and the streptococcus, can live some time dry; the most resistant of all is the *meningococcus intracellularis*, and next to it the tubercle bacillus and the staphylococcus. The somewhat peculiar opinion of Paget is that the enteric bacillus exists in virgin soil, but in such a condition that it requires education before it can produce typical enteric fever; and that the so-called typho-malarial fever is due to an uneducated bacillus.

On the whole the opinion of the day seems to be that the bulk of ordinary enteric fever is soil-derived, but sudden widespread outbreaks water-borne. When outbreaks occur simultaneously over a wide extent of country, they may

be due to some combination of polluted soil and climatic conditions, with here and there incidental secondary contamination of the water, rather than to simultaneous accidental fouling of water-supplies. A specifically polluted soil is to the inhabitants of the place a constant threat of danger through the water-supply, as well as through the many other channels by which its particles can reach the interior of the body, while a non-specifically polluted soil is only one degree less dangerous, for it is a favourable nutrient medium prepared and ready for the enteric microbe whenever it shall arrive.

Climate, Fatigue, Auto-Infection. (4)

To those who say that climate is nothing, the parasite everything, it may suffice to point out that it takes two to make the disease, the host and the parasite; that these two are engaged in a life and death struggle, that even a slight advantage or disadvantage on one side may decide the result; and that the Indian climate is certainly not bracing to the European constitution. In the same way a native of India if transported to England is depressed by the cold, has his lungs irritated, and is much more apt to fall a victim to tubercle than in his own country. Many experienced medical officers are impressed by the occurrence of cases which seem to show that over-exertion in the heat renders a man an easier victim, and that with respect to enteric fever liability too much exercise is more dangerous than too little.

Though the presence of the enteric bacillus has been but seldom reported in the intestine or gall-bladder of men not suffering or recovering from enteric fever, there are those who believe that it is often present, and would be more often found if looked for oftener and with adequate means. According to them, men very generally carry about in their bodies the enteric bacillus, which remains quietly waiting its opportunity. That a man escapes is due either to permanent insusceptibility or to temporary insusceptibility or to the absence of the bacillus. According to them again, a man may get enteric fever in one of two ways. Either some indiscretion of diet or exercise, or a lowering climatic influence, diminishes his power of resistance and enables the bacillus, hitherto resting peacefully in his body, to become an active invader of the same; or while he is in a susceptible condition, bacilli from the stools of another case gain access to his body through water, food, etc.

Experiments on Animals. (1)

Experiments on animals by Remlinger and by Chantemesse appear to their authors to have had more satisfactory results than those of previous observers.[1]

Enteric Fever a Blood Disease (1) Enteric Bacilli in the Blood (1)

Osler seems now to have adopted the opinion of Sanarelli, quoted on page 25 of the report for 1894, that enteric fever is no more primarily an intestinal than small pox is primarily a cutaneous disease. On the other hand Sidney Martin is of the old opinion that the disease probably begins at the intestine and not at the blood.

Block on two occasions cultivated the enteric bacillus from a hypodermic syringeful of the patient's blood, and after death the bacillus was found in the liver, spleen, kidneys, and in a piece of retained placenta,—along with other microbes. Takaki and Werner succeeded in finding the bacillus in blood taken from the roseola.

Enteric Fever without Intestinal Lesions (1) Enteric Bacillus in the Gall-Bladder. (1) Enteric Bacillus in the Intestines of Convalescents and of the Healthy. (10)

Cases of enteric fever without intestinal lesions have been mentioned in former reports. Osler now divides cases of enteric fever as follows:—firstly, ordinary cases with intestinal lesions; secondly, septicæmic cases, general infection without special local manifesta-

tions, the diagnosis being made by means of Widal's reaction and by means of cultivations of the bacillus from the organs; thirdly, cases with localisations other than intestinal,—pulmonary, splenic, renal, cerebro-spinal; fourthly, cases of mixed infections. This division meets with the approval of the *Lancet* reviewer. Chiari and Kraus report a number of cases in which the presence of Widal's reaction during life caused the organs to be searched for the bacillus, though there were no intestinal lesions. In some the bacillus was found in the gall-bladder, mesenteric glands, spleen, kidneys, urine; while in others, though no bacilli were found, the fluids of the body continued to give Widal's reaction *post-mortem*. Others also have reported cases. Their experience seems to indicate that "pure septicæmic enteric fever is relatively frequent." Durham, on the other hand, is of opinion that to the bacillus of Gaertner, and not to that of Eberth, belong the similar cases of "septicæmic enteric fever" which he had seen described as occurring in France, in which death occurred before typical typhoid lesions developed. Some of the observers who have brought forward the cases without intestinal lesions point out that if the bacillus is to be found at all in a body it will likely be found in the gall-bladder; and that in the gall-bladder it may remain more or less inactive for long periods after health is re-established, during which at any moment it may be excreted into the intestine, and so perhaps make a healthy man a source of infection to others. The bacillus is even said to have been found in the gall-bladder in one case in which there was no history of previous enteric fever. Horton Smith reports that it was found in the fæces of convalescents 12 days after defervescence by Brieger, and 41 days after by Lazarus, and that he himself found it in urine 22 days after. It has also been found in abscesses years after.

Bacillary Diagnosis.[11]

Sterling reports that without the aid of Elsner's method he succeeded in demonstrating the enteric bacillus in fæces in only 16·4 per cent. of the cases, whereas by the use of Elsner's process he was successful in 60 per cent; but that, while a positive result is decisive, a negative is not so. He detected the bacillus in 60 per cent. of the patients, in 66 per cent. of the examinations made, in 44 per cent. of the examinations in the first week of the fever, and in 87 per cent. of the examinations in the second and third weeks. Others have characterised the method as good but requiring a long time; while by at least three observers it has been unfavourably reported on. None of the newest methods seem to have won for themselves immediate general approval and adoption. In several volumes of this report the enormous difficulty of the diagnosis of the enteric bacillus, especially in water, has been emphasised; and a similar opinion is expressed in the Army Medical Department Report for 1895. Van de Velde, among others, states that he has never succeeded in finding the enteric bacillus in water. On the other hand, it is well known in India how frequently Mr. Hankin finds the bacillus, or something very like it, in water and elsewhere. Mr. Hankin in his Annual Report for 1897 says,—

> The enteric microbe was searched for in 87 specimens of water, and detected in 29 instances. The isolation of the enteric microbe is known to be a difficult matter, and as some doubt has been expressed whether the enteric microbes and microbes suspicious of enteric that I have isolated from water really deserve that name, I have submitted a dozen of these microbes, obtained from as many different specimens of water, to Professor Pfeiffer of Berlin, the leading European authority on the subject. He imforms me that he has subjected these cultures to a minute examination, and that all, or nearly all, are typical enteric in every respect.

Kister is one of the latest observers who report favourably on the use of Widal's test in the examination of suspected bacilli from water; and Hankin in some of his analytical reports mentions the finding of bacilli, which, besides presenting other characters of the enteric bacillus, reacted with Widal's serum. Durham divides the bacilli which cause the chief difficulty in diagnosis into three groups,—the Gaertner group, the Eberth group, and the Escherich group; but these groups are not sharply defined one from another, and it is sometimes only by a majority of properties that a given microbe is assigned to one group rather than to another. Durham also asserts that the bacillus of Gaertner has been known to give Widal's reaction with enteric serum, and this appears to be accepted by Sidney Martin. Durham, in fact, considers that the bacillus of Gaertner causes a fever without intestinal lesions, which has been mistaken for enteric fever.

Bacillus Coli. (11)

A case has been published of fever which ended fatally by perforation of the intestine, a virulent colon bacillus being found in the spleen. As usual a large number of diseases were attributed to the *bacillus coli*; but in some of the cases the infection may have been secondary, or may even have been *post-mortem*. It is believed to be possible that active infection by the enteric bacillus and the *bacillus coli* may be simultaneous, and experiment gives some countenance to the idea that the two may aid each other in their work of destruction.

Direct Infection. (12) Flies. (13)

The spread of enteric fever through the air around the patient is generally doubted; but Dr. Budd strongly maintained that such communication was not only possible but frequent, and Dr. Corfield believes that he was right. There are others who believe in the direct infectiousness of enteric fever, especially in the crowded dwellings of the poor; but it may be considered doubtful whether the disease would, even under such circumstances, be conveyed without the agency of dirty fingers and other uncleanlinesses.

The idea that flies convey infection is probably a very old one. Of late years many medical officers have referred to the matter in reports on outbreaks of enteric fever or cholera; and many of the cook-houses for British soldiers in India are protected with wire gauze for the very purpose of shielding food from the visits of flies, which may have come from latrines or other unclean resting-places. Among the neatest bacteriological investigations of the subject was one in which flies were allowed to alight upon a culture of *bacillus prodigiosus*, this bacillus being chosen because of the striking red colour its cultivations display, and then given opportunity to walk over the surface of sliced sterilised potato. The results were, as might have been expected, positive and conclusive. Various other experiments, also all with positive results, have been made with flies and other insects as to their power of conveying the enteric, cholera, cholera nostras, tubercle, and anthrax bacilli, and the staphylococcus. The microbes in an active condition were also found in the excrement deposited broadcast by the flies. Lately a report, couched in somewhat superlative terms, has been published in the *Lancet* to the effect that an American scientific commission appointed to examine into the causation of enteric fever in the military camps, had come to the conclusion that flies were the chief agents in the spread of the disease. Very interesting and important, though not bearing directly on enteric fever, are the investigations of Amedeo Berlese. His experiments prove conclusively the great part taken by insects, especially ants, and several

kinds of fly, not only in the distribution (as was already known), but also in the preservation and multiplication of alcoholic ferments. Insects, far more than the atmospheric air, contribute to the dissemination of yeasts, which they convey rather internally than externally. There is, moreover, reason for believing that during the cold season some yeasts are chiefly preserved, and perhaps increased, within the organs of insects.

Enteric Bacillus in Urine. (15)

The most important recent researches on the presence of the enteric bacillus in the urine are those of Petruschky. He found, like others, that the excretion of enteric bacilli in the urine is relatively rare, and begins so late in the course of the disease as to be useless for diagnostic purposes. But he also discovered that in many cases the excretion of bacilli may be so enormous that millions may be contained in one cubic centimetre of the urine; and that this hyper-excretion may go on for weeks, and, what is obviously of great importance, may continue so long after the beginning of convalescence, as to constitute a real, though hitherto unsuspected, danger to others. He points out that such a case might cause a sudden great increase in the contamination of a water-supply; and the importance of frequent examination of the water. He also gives the following account of an involuntary experiment on the human subject. During the absence of the sister who was nursing him, a delirious patient suffering from enteric fever urinated into a champagne bottle that was standing by his bedside. When the sister poured out the fluid into a glass to give to the patient, she was struck by its cloudy appearance, and tasted it to see if it was all right. Though she at once recognised what it was, and was seized with vomiting, yet in about 12 days she fell ill of enteric fever. Urine which contains these large quantities of bacilli is always cloudy. He has not succeeded in finding similar exaggerated excretions of bacilli in fæces.

Water. (16)

Besides the importance of examining the sources of the water-supply and their surroundings, two points have lately been insisted on: the necessity of obtaining a local standard of water, the necessity of frequent examination and of not trusting to the negative evidence of a single sample. That the first is a convenience as well as necessity has been emphasised by Duclaux. Opinions differ as to the meaning of the presence of the colon bacillus in water, but all seem agreed that its presence in abundance always indicates danger, being due to pollution of the water by alvine discharges or sewage or fæcal dust. The colon bacillus isolated from water sometimes gives confusing seral reactions. The following is condensed from a leader in the *Lancet* on the report of Adams (chemical) and Washbourn (bacteriological) on the Farleigh water-supply of Maidstone :—

It becomes essential to have an intimate knowledge of the composition of the pure water of the district, before it is possible to form an accurate estimate as to the purity of any sample from a source within the district. Except within narrow limits, there should be no departure whatever from that standard. Departure from the standard signifies pollution. The nature of the pollution, though of a harmless sort one day, may be changed for a dangerous sort another day. It may be accepted almost as an axiom that any water which at all seasons and under varying conditions remains unaltered for, say 12 months, may be looked upon as a permanently good water; whilst any water, from whatever source, which undergoes even slight changes as regards its mineral and organic constituents in solution, must be recognised as a water which, though not actually polluted, is always open to suspicion, from the fact that it is open to contamination, sometimes, of course, of a specific nature. Even slight irregular variations are more important than the presence of moderate but invariable quantities of certain substances which are some-

times supposed to indicate by their presence a certain amount of contamination.... It is impossible to make an arbitrary limit as to the number of bacteria which is to be taken as the standard of purity; but Koch's dictum may be accepted that water containing fewer than 100 bacteria in the cubic centimetre may be considered a good water, provided they are the ordinary water-bacteria. The presence of one or two coli bacteria in 100 c.c. of water is probably not a matter of much importance, although the presence of a large number (such, for example, as the 60 colonies in the c.c. in one of the samples examined) is a definite proof of contamination with animal excreta.

In paragraph 16 will be found an account of the cases in which the enteric bacillus was found in water-supplies in India during 1897; and in this present paragraph under the head of "Bacillary Diagnosis" are given some important remarks of Mr. Hankin on the subject. Some careful work on filters has been done by Sims Woodhead and Cartwright Wood: many filters of different makes were tested, and their individual merits and faults clearly stated. But it must always be remembered that it is never wise to trust to filtration for safety, when the water is known to be contaminated: the way of wisdom is to see to the removal of the contamination at its source. Some striking statistics of the result of an improved water-supply in diminishing the morbidity and mortality from enteric fever have been published. It was found in the Agra laboratory that one way by which pure water could be contaminated was by the pathogenic microbe growing through the porous walls of the water-vessels into the contained water. This would seem to require confirmation, as it appears to be at variance with the results of Abba quoted on page 24 of the report for 1896. Poore has drawn attention to the dangerous dead-house practice of washing out the intestines of bodies of men dead of enteric fever and letting the intestinal contents and the water flow away into the drains without any attempt at disinfection. This point should be attended to in India, as the drains from dead-houses there are mostly simple surface-drains.

Milk. (17)

Under the ordinary conditions in which milk reaches and is kept by the consumer the enteric bacillus is capable of maintaining its existence in it, but without multiplication; in fact, it undergoes diminution, the rapidity of which depends on the number of rival microbes present. It can also exist in sterilised milk curdled by the *bacillus lactis*, and also in sour milk, so that it may possibly find its way into curd-cheese. It is said to survive for 48 hours in butter-milk. An epidemic in Hamburg, which chiefly affected women and children, was considered to be due to those properties of the bacillus. In bad and dangerous milk a bacillus which is either the colon bacillus or a near relation of it has been found.

Sewer Gas. (18)

The general opinion among those best qualified to judge is, at present, that the only possible way in which sewer gas and evil-smelling air can contribute to the causation of enteric fever is by lowering the general health and resisting power of men.

Disinfectants. (19)

Heat remains the best disinfectant agent for the prevention of the disease—cooking of all food, boiling of water and milk, cremation of stools; and these measures have been practised to a considerable extent in India. All authorities seem agreed that pathological stools should be burned, and certainly in times of epidemics. But as it is not always possible to know that a stool is pathological and pathogenic, and as the burning of all night-soil is out of the question, the greatest attention should be paid to the proper disposal of the dejecta by superficial

burial. Those concerned should lay to heart the words of Poore, quoted in the present paragraph under the heading "Soil," and also the following of the same author :—

> In order to prevent contamination of the water, it is best to burn the stools. But in the country it would be best to put the excreta near the top of a recently-tilled humus. Merely digging a trench, filling it with excreta, and covering it firmly with soil simply preserves the fæces, and does not lead to their disintegration.

At hill stations also all stools known to be those of enteric fever should be destroyed. For the burial of the rest of the night-soil, which will always contain some dangerous stools, there is difficulty of getting sufficient land on the hill-sides ; and the best plan is to convey the night-soil in wire-tramways down the hillside as far as may be thought desirable, or till a suitable trenching ground is reached. This system is working well at Murree, Gharial, Kuldunnah, and Lower Topa.

London Statistics. (²⁸)

It may be of interest to record that P. C. Smith states that the enteric fever death-rate in London, which was in the decennium 1871—80 240 per million, fell to 190 in the decennium 1881-90, to 140 in 1895, and to 127 in 1896.

Opinions of Medical Officers.

16. As usual, many medical officers point out the influence of youth and of recent arrival in India ; and some call attention to the increase of enteric fever subsequent to the arrival in a station of a new regiment or of fresh drafts from England. The medical officer at Ahmednagar goes so far as to say that newcomers to that station are as such more liable to the disease, even though it be not their first term of residence there. Three men appear to have already contracted the infection before they landed in India. In 1897, as in former years, some cases were held to have originated *en route* from Bombay to inland stations, and the medical officer of Mhow calls for more stringent measures to protect fresh arrivals at Bombay, at Deolali, at the rest-camps, and while in the train. Again, medical officers frequently noted, especially in the case of hill stations, that the disease must have been contracted before arrival, either from impurities encountered on the march, or from a cause existing in the previous station, so that the station where the disease was treated was not always the station in which it was contracted. For example, eleven of the cases treated at Peshawar are said to have originated on field service. Some patients acknowledged having drunk foul or doubtful water in native villages, by the roadside, when out shooting, when bathing in a dirty stream, in the bazar, or from a forbidden source in cantonment. At Jhansi, Bangalore, Deesa, Subathu, and Amritsar it was noticed that men employed away from barracks, as military telegraph signallers or policemen, or in practice and exercise camps, or at training and musketry, were liable to attack, whether from fatigue and exposure, or from having had opportunity to drink unclean water. While in some cases heat and fatigue were held to have been predisposing influences, in others illness was dated from a chill due to a wetting, or from a chill following overheating. The medical officer at Mhow considered that insufficient clothing had rendered a certain body of men more vulnerable. The water-supply was considered liable to contamination at Umballa, Dagshai, Subathu, Poonamallee, Mandalay, Ahmednagar, Mhow, Nasirabad, Hyderabad, and Sitabaldi ; while in Fort Lahore, examination having thrown suspicion upon the well-water, recourse was had to a fresh source of supply. Apparently, Calcutta, Attock,

Madras, Bangalore, Wellington, Ramandrug, Rangoon, Thayetmyo, Purandhur, Nasirabad, and Taragarh are still exposed to the danger involved in a double water-supply ; and the medical officer of Nasirabad mentions that men had confessed to having drunk of the water reserved for washing and gardening, and notified by sign-boards as "Not for drinking," a water in which the presence of the enteric bacillus had several times been reported. Besides this, in the drinking-water of Lucknow, Fatehgarh, Meerut, Muttra, Agra, Subathu, Meean Meer, Amritsar, Cherat, Mhow, and Deesa, the bacillus, or a near relation of it, was found, mostly, or in every case, by Mr. Hankin. Two medical officers report that the same bacteriologist discovered the enteric bacillus in specimens of water that had been boiled and passed through a Pasteur filter. Mr. Hankin found the bacillus in milk from Fatehgarh and Dagshai. On the other hand, the result of the examination of water from Sitapur, Ranikhet, Chakrata, Jhansi, Dagshai, Solon, and Ahmednagar was negative. At Quetta the arrangements for the supply of water to the kitchens and to the soda water factories was considered such as to risk contamination of the water, and the *bacillus coli* is said to have been found in a specimen of soda water. In the beginning of 1898 Surgeon-Major Davies, on special duty, found a bacillus of the colon group in the water of the Mhow supply. Where *pakhals* and *mussacks* continue to be used, it appears, at least on paper, that systematic efforts are made to secure their constant disinfection, the most difficult cases being those where the use of leather vessels coincides with a double water-supply, and necessitates the provision of two sets of *mussacks* and *pakhals*. In some cases it appears that dislike of boiled water, or of water treated with permanganate of potash, was the cause of men resorting to forbidden sources, and anyone with a taste for water must sympathise with these men. The combined result of six stations was that 65 cases occurred among total abstainers, and 121 in non-abstainers, or 35 and 65 per cent., respectively. But, as their average annual strengths cannot be obtained, no conclusion can be drawn as to the relative liability of those two classes. An outbreak in Umballa was attributed to water drawn by a *bhisti*, to save himself trouble, from a well close to some old filth pits. At Indore a patient stated that he had drunk a quantity of soda water in a brothel about a week before the onset of his illness ; at Hyderabad a soldier had drunk lemonade in the bazar ten days before admission ; while at Chakrata a man who contracted the disease had drunk out of the bottle of a comrade in hospital suffering from enteric fever, the supposition being that the latter had contaminated his bottle in using it. An outbreak at Cherat was traced to the adulteration of milk with the water of a dirty tank, this water containing the enteric bacillus. The butter and milk were believed by a committee to have originated the first outbreak of the year at Mhow ; and, though doubts have been thrown upon the validity of this conclusion, it was found that the dairy arrangements were very defective. As usual, some medical officers point to the comparative immunity of women and children as an argument against the probability of the disease having been carried by the water or milk supplies, or to the scanty numbers and sporadic distribution of cases as an argument against its having been water-borne. The enteric fever of some stations was described as not epidemic but endemic, with regular spring and autumn exacerbations. The medical officers of three or four stations point out that all the attention lavished on the disinfection of the water has made little difference in the amount of enteric fever,

and draw the conclusion that enteric fever is mostly contracted in the bazars, away from the barracks with their sanitary arrangements. Most medical officers are of opinion that much enteric fever is contracted in the bazars, and especially in the brothels ; and in support the medical officer of Fort Allahabad notes that eight out of nine cases occurred in the persons of bachelors, one of them having primary syphilis when admitted for the fever ; while, on the other hand, it is said by the medical officer of Nasirabad that no cases have been admitted from the married quarters for some years. None of the reports for 1897 mention the effect on the amount of enteric fever of placing the bazar out of bounds, though there are nearly a dozen references to the effects of this measure upon the statistics of venereal disease. The danger from the careless and dirty habits of natives allowed to be about barracks, and especially of native cooks, is insisted on by several medical officers. Two of them suggest that the men should be made to cook their own food, and this reform has actually been carried out in the case of Subathu. In some stations elaborate rules have been introduced to secure cleanliness in the kitchens, and measures have been taken to exclude flies. An outbreak of enteric fever in the hospital at Jhansi was attributed to the surreptitious introduction from outside of bazar-made sweetmeats and butter. At Dagshai the bread was freed from suspicion by examination. The medical officer at Nasirabad thinks there may be something in the fact that enteric fever is most common when there is most dust blowing about. It was discovered by the medical officer at Campbellpur that the clothing of enteric patients admitted to hospital was stored without being washed, and, in the event of the patient's death, was sold without having been disinfected. At Dagshai it was noticed, as in some other years, that tonsillitis and sore-throat were prevalent at the same time as enteric fever. Of Bernardmyo, which was first occupied in 1888, it is said that there is no record of the occurrence there of enteric fever ; and Darjeeling and Colaba are reported as comparatively immune. The reasons given for immunity in the case of Roorkee were a small garrison and no drafts arriving ; in the case of Dagshai military prison, the not allowing any natives inside ; in the case of Murree, a good and abundant water-supply and careful sanitary attention ; in the case of Colaba the fact that the water-supply is at no point liable to contamination. Again, the reasons given for a diminution of the disease were, at Shahjahanpur, keeping natives away from the barracks ; at Ranikhet the great precautions taken to secure cleanliness of water and milk ; and at Dalhousie the sanitary measures of recent years. Among the measures considered to have been successful in staying an outbreak were removal from the neighbhourhood of the unclean water (Umballa) ; boiling and permanganating the water, and inoculation of the supply with *micrococcus Ghadiallii* (Meean Meer) ; permanganating the water (Kamptee). The presence of the *micrococcus Ghadiallii* in the milk used by a regiment at Dagshai did not, however, apparently prevent that corps from suffering severely from enteric fever. That non-commissioned officers at Umballa suffered little was considered possibly due to the fact that only mineral waters were consumed at their messes. Some regiments and batteries have made very complete arrangements for securing cleanliness in their aërated water factories and in their dairies, but, as a rule, the existence of weak points is reported. For the purification of water alum appears to be used only in about half-a-dozen stations, whereas boiling and permanganating with more or

less thoroughness seem to be general. The Larymore boiler, as made and used by the jail department of Bengal, is being introduced at some stations, and has so far met with approval. Incineration of enteric stools is reported from Dagshai, Subathu, Jutogh, Mooltan, and Gharial ; but it seems that those are not by any means the only stations in which such a procedure is carried out. At Chakrata urine, fæces, etc., were boiled. Finally, on account of the difficulty of maintaining biological cleanliness in all things in India, some medical officers, amongst whom is he of Chakrata, desire the prophylactic inoculation of all men coming to the country. Out of the 2,214 cases of enteric fever which occurred throughout the army of India in 1897, 49 are noticed as having declared themselves among patients in hospital or among attendants. Out of these, 11 were in hospital for early venereal disease, 19 were in hospital for late venereal or other diseases, and 19 were attendants on enteric fever cases. The number of attacked attendants returned is much greater than usual. A second attack of enteric fever was the lot of a man at Meerut, whose first attack had been at Cairo. In four cases at Mhow and in one case each at Pachmarhi, Meerut, Sialkot, St. Thomas' Mount, Bangalore, Belgam and Rangoon an association, contemporaneous or successive, of enteric fever with dysentery was observed. A case each of enteric fever at Sitapur, Sialkot, Belgam, and Quetta was complicated with abscess of the liver ; while in two cases of abscess of the liver, which occurred, respectively, at Lucknow and at Secunderabad, the origin of the abscesses was stated to have been the intestinal ulceration of enteric fever.

The following is an account, shortened from the reports of medical officers, of the outbreaks in the case of which the drinking water was suspected, or was said to contain the enteric bacillus ; of the measures considered to have been effectual in preventing or checking the disease ; and especially of the results obtained by boiling the drinking water, or by adding to it potassium permanganate or other chemicals. Instances are given in the extracts where the purification of the water was not properly carried out, or was even so carelessly managed as to be worse than useless—to be mischievous.—But the disappointing figures in the following table seem to show either that the measures in question were more generally mismanaged than would appear from the extracts, or that they are of no use, or that the main sources of the infection were outside the regular water-supply. If the actual increase of enteric fever was not due to contamination of water from unintelligent handling after it had been drawn for use, it may conceivably have been due to the concentration of sanitary attention on the water-supply to the comparative neglect of those other sources of infection. It seems hardly likely, however, that good measures put in force simultaneously throughout the British cantonments of India, should have been everywhere mismanaged, and should in two years have produced absolutely no good effect. The alternatives, therefore, seem to be either that the measures were not of a kind to do good, or that, being good, they were not applied to the cause of the evil. The same suspicion which has already arisen in England, arises in India, that, while sudden extensive epidemics are due to contamination of the water-supply, the mass of ordinary cases that occur singly or in small groups must have some other origin, or, more probably, origins. There is uncleanliness of soil, of cook-houses, of latrines, and there are the many uncleanlinesses of the native bazar. Actual instances of defects in some

of these points are given in paragraph 17, or in the reports from which that paragraph is compiled.

Commands.	Year.	Enteric Fever.		
		Admissions.	Ratio per 1,000 of strength.	Difference.
Bengal	1896	679	30·2	+8·9
	1897	786	39·1	
Punjab	1896	488	25·9	+16·2
	1897	724	42·1	
Madras	1896	227	16·8	+2·4
	1897	237	19·2	
Bombay	1896	401	25·5	—5·1
	1897	303	20·4	
India	1896	1,795	25·5	+6·9
	1897	2,214	32·4	

No explanation can be offered as to the exceptional experience of the Bombay Command. The chief reductions in the command were at Quetta, Kirkee, Deolali; but the "medical transactions" of those stations throw no light on the point. The extract given under "*Mhow*" indicates, however, that there is no reason to believe that the process of water-sterilisation was better carried out in the Bombay Command than elsewhere.

Barrackpore.—At the beginning of the year it was recognised that we had before us an enhanced liability to enteric fever and dysentery; for in the previous year these two diseases had apparently found a footing in the station, to recur under favourable conditions. As these are "water-borne" diseases, we considered that being forewarned was forearmed. It will be seen in the sequel that we did not appear to be able to influence these "water-borne" diseases by measures directed to the purifying of the drinking water. . . . . Although in 1896 bacteriological examination of the drinking water gave negative evidence as to the mode of origin of the disease, it has always been felt, following precedent, that the main source of the disease was drinking water. The record of the two years, and, in a special sense, the record of the year we are now considering, affords no support whatever to this view. . . . . Granting, therefore, that there are no sufficient grounds for attributing enteric fever to the drinking water, and that one or more other modes of conveyance of the organism to the bodies of our soldiers exist, it becomes a question whether we have not ourselves been the unconscious agents of the spread of enteric fever by the use of the very measures designed to prevent it. . . . . Any one who has watched the mode in which, in pursuance of the practice, the boiling and permanganating of the water are carried out cannot fail to be struck with the fact that it is a most dangerous proceeding. In collecting, boiling, cooling, transferring to the stores, the methods of storage, one can imagine numerous modes in which the organism of enteric fever may be introduced into our previously bacillus-free water; and, since the final result is that no effect is produced on the continuance of the epidemic, there can be little doubt the boiling of the municipal drinking water, as at present practiced, should cease. . . . . It is, therefore, proposed to allow the drinking water to be taken from the pipes without subsequent boiling and storing. . . . . The influence of contact with the native as a source of dissemination of the disease has recently become a subject for consideration. We find recorded instances of microbial infection of food supplies, in soldiers' kitchens, in *jharans*, here, there, and everywhere. . . . . I fail to see of what practical use the information given as to the results of bacteriological examination is, if we are unable to carry the inquiry even one stage further. That the habits of the class of natives employed in kitchens are filthy must be admitted; that the enteric microbe appears to be widely disseminated in India is of course known; and that the traditionally filthy methods of supplying to the soldier his food-stuffs have much to say

to the origin of our enteric fever is probable; and it is not surprising that the enteric bacillus is found in our kitchens. That the kitchens could be kept spotlessly clean, and natives excluded from barracks, under our present conditions, is by no means certain.

Benares.—During the year the water has been obtained from the municipal water-works at considerable expense. This does not appear to have affected enteric fever in the slightest. Permanganate of potassium is used, and this is allowed more as a concession to popular credulity than on account of any benefit likely to be derived from it.

Lucknow.—The special prevalence of enteric fever in a severe epidemic form during the present cold weather is undoubtedly due to the presence of a large number of susceptible individuals in a regiment, the 2nd Battalion East Lancashire, just out from home, and the young soldiers of large drafts to the other corps . . . . . In January the government analyst, North-Western Provinces and Oudh, reported the presence of the enteric microbe in three samples of filtered water sent to him from the Lucknow municipal water-works In March out of four samples taken from different standposts in cantonments one contained the enteric microbe. In December out of six samples taken from different standposts in cantonments two contained the enteric microbe, or a microbe which resembled it in its growth in culture media. In April, October, and November two, six, and four samples taken from standposts in cantonments were reported free from the enteric microbe. As far as I know, these are the only occasions on which any bacteriological examination of the water was made; and the negative results appear to me to be of little value compared with the actual proof of the presence of the enteric microbe on three separate occasions at an interval of several months. I think the argument is in favour of the microbe having been present more or less throughout the year, and that a more extended research would have revealed its presence generally in the cantonment water-supply . . . . It appears to me that in Lucknow it is unnecessary to look any further than to the water-supply for the origin of the disease. A doubt may still exist as to whether the microbe which the government analyst found is really the *bacillus typhosus*; but Mr. Hankin is a bacteriologist of such repute, and so extremely guarded in his statements, that it is difficult to believe him mistaken. Since May orders have been in existence for the boiling of all water drunk in barracks, but it appears practically impossible to close all the avenues of infection through the water-supply. The enteric microbe has since been discovered in water supposed to have been boiled in barracks . . . . . The original source of the water-supply is the river Goomtee. The in-take is above the city of Lucknow, and from this point the water is pumped into settling tanks, and passed through a sand and gravel filter bed. . . . . Early in January the enteric microbe was reported present in samples of filtered water taken at the municipal water-works; and although, so far as is known, no bacteriological examination of the filtered water prior to its entering cantonments was made after that date, it is believed that the infection was general, and that in all probability it lasted throughout the year. The pipe service is not open to contamination at any point within cantonment limits, the river water is known to be impure, and it is thought that the methods of filtration are too imperfect to prevent the passage of deleterious germs. The whole subject is at present engaging the attention of the district civil and military authorities. Throughout the year orders have been in force for the pinking with permanganate of potassium of the whole of the drinking water used in barracks, and since the month of May for boiling it previous to its being so treated. Constant inspections are made to investigate the arrangements and ensure these orders being carried out; but notwithstanding this the enteric microbe has recently been found in water which was reported to have been boiled. As long as the water is contaminated at its source, it appears practically impossible to ensure its ultimate purity.

Lucknow Military Prison.—The water-supply has been ample and of good quality. Before being used for drinking and cooking purposes, the water is first of all boiled, and afterwards pinked with permanganate of potash solution, and stored in reservoirs. The reservoirs are emptied daily, and a fresh supply put into them . . . Two cases were transferred from the prison as "not yet diagnosed" to the Station Hospital, where they were subsequently diagnosed as enteric fever. In both cases the men had been in prison for several weeks before the appearance of the disease, so that it must have originated within the prison. We were unable to discover the cause, but, thinking that the *surahis* might have been to blame, it was thought advisable to have these articles well boiled for ten minutes before issue from store to the prisoners.

Sitapur.—On the occurrence of a few cases of enteric fever in April specimens of water from the well and filter-tank, from the hospital well, and from the plunge bath were

sent to the Chemical Examiner to the Government of the North-Western Provinces and Oudh, and were pronounced by him good and free from the enteric microbe. Both the wells used for drinking and culinary purposes are regularly treated with potassium permanganate. . . All water used by the troops for drinking and cooking is now treated with potassium permanganate, and during the epidemic of cholera all water was boiled. In the regimental mineral water factory all bottles are thoroughly cleaned with a solution of permanganate of potash before recharging. The milk is supplied by the regimental dairy, and is carried round to the companies in locked tins.

Fatehgarh.—Only iron buckets are used in drawing water from the drinking wells. All the drinking water is treated with permanganate of potash, and once a month the well is also treated with permanganate . . . . . Enteric fever has not been so prevalent among the troops as heretofore, only five cases having occurred during the year. . . . . On the occurrence of each case samples of the water from the well used for drinking purposes, and from the Macnamara filter-tub belonging to the barrack room in which the man resided previously to admission into hospital, together with samples of the milk and butter supplied to the detachment, were sent to the Chemical Examiner, North-Western Provinces and Oudh, for analysis as to the presence of the enteric microbe. The two first cases were admitted in April, and the Chemical Examiner reported that the enteric microbe was detected in the milk, but not in the other samples. The milkman was changed, and strict orders were issued that all milk used by the troops was to be previously boiled. The next case occurred in July. The Chemical Examiner reported that "a microbe probably identical with that of enteric was detected in No. 5 (sample of water from Macnamara filter-tub used for drinking), which reacted to Pfeiffer's serum within about five minutes; but not in the other samples". . . The filter-tub was washed out with boiling water, and the well cleaned out and treated with permanganate of potash. It may be noted, however, that the man was an ardent fisherman, and would often go out for a whole day without taking any water with him, and would when thirsty drink from any water near at hand. The next case occurred on the 30th October. The Chemical Examiner reported that "a microbe similar to that of enteric fever was detected in No. 3 (sample from well used for drinking purposes), but not in other specimens. This microbe reacted only feebly with Pfeiffer's serum, and on that ground would be considered by some not to have anything to do with the disease." The well was cleaned out, and treated with permanganate of potash. The last case occurred on the 8th December.

Cawnpore.—Permanganate of potash was added to all drinking wells once a week during the year, the water being made a delicate pink colour. The following day these wells were drawn from till the water became clear. It was useless trying to make the men drink "pink water": they said they "did not like lotions and stuff used for injections." Hence the permanganate was added to the wells, as just described, and used for cleaning all drinking vessels. I cannot say positively if it had any good effect. Certainly enteric fever gave 8 and dysentery 16 fewer admissions than in the previous year, though ague shows a very large increase. Still I am of opinion that the practice of putting "Condy" into vessels and wells is a good thing to do; as it ensures them being cleaned out periodically, and thus gives a clean supply of water for drinking.

Shahjahanpur.—A considerable and marked diminution in the prevalence of the disease is noticeable during the last two years . . . . Considering that the strength of the garrison, and the water, milk, and butter supply have been the same as in previous years, I attribute it solely to the rigid exclusion of the native element from the barracks. Only those who have actual employment are allowed within the precincts of the barracks; and in the regimental bazar there are no petty shop-keepers, so that no aërated waters are obtainable other than those manufactured by the regiment, except in the native city. In fact the soldier and the native are kept apart as far as possible. If it is impossible to keep the men from going to the native city, the natives at any rate can be checked to a great extent in a small cantonment from frequenting the barracks. This principle has been carried out here since a cholera scare, which originated at the latter end of 1895, and, it appears to me, with the happiest results . . . As long as the soldier is living within a stone's-throw of an overcrowded regimental bazar, so long will he be liable to contract the disease. At present in our larger cantonments he is rubbing shoulders with the native all day long. Both regimental and *sadar bazars* have outgrown all bounds, and are practically communities of natives planted in the centre of barracks which are otherwise kept thoroughly clean and sanitary. In my humble opinion it is to this source the terrible scourge of enteric fever is due.

Ranikhet.—The number of admissions for enteric fever was far less than in the preceding year. Every care was exercised, and precautionary measures were adopted to prevent contamination of water and food supplies; and the cook-houses have throughout the year been worked under a set of systematic rules drawn up with much care and forethought. The pinking of the water with permanganate of potassium has been steadily carried on throughout the year, and it is believed to have been very beneficial, for in no samples of water so treated has the enteric microbe been found . . . . . The sanitary condition of the several camping grounds between Ranikhet and Kathgodam has been much improved, and further improvement is hoped for this year . . . . As regards the source of origin in the cases of enteric fever which arose in the station itself, it has almost invariably been traced to the *sadar bazar*, where the men resort after drink and women, the latter concocting and selling all sorts of inconceivable mixtures . . . . . Both the Mint spring and the Chuppra spring supply excellent water; but during the months of April, May, and June the supply is limited, and only sufficient for drinking and cooking requirements, and, in consequence, water for ablutionary purposes has to be obtained from various springs, and wherever in fact it can be procured. This water is often very impure, and there is constant danger of its getting mixed with that supplied for drinking.

Meerut.—The drinking water was submitted for bacteriological examination on three separate occasions, but in only one instance was the enteric bacillus detected. This was in the water of a well in the lines of C Battery, R.H.A. Prompt steps were taken to have this well closed and thoroughly cleansed. My own impression is that the source of the disease is to be found in the regimental and *sadar bazars*. All drinking water is carefully boiled and treated with permanganate of potash: but up to the present this does not seem to have had much result in diminishing the number of attacks. Enteric fever seems now to be quite endemic in Meerut, with spring and autumn exacerbations. In the British Infantry lines two Larymore boilers have been erected for the purpose of boiling the drinking water; and several others are now in course of erection in the lines of other troops.

Muttra.—The water in some of the wells was found to be contaminated with the enteric microbe, but how the contamination took place could not be traced. All water used for drinking purposes has been boiled, and the wells treated with permanganate of potash.

Roorkee.—I am unable to offer any satisfactory explanation of the comparative immunity of Roorkee from the disease. Water, which is the most probable cause of the majority of cases, is taken from a good well, fairly satisfactorily protected from pollution, and is boiled and tinted with potassium permanganate before issue to troops. This system was adopted in 1896; but the records of the station seem to indicate that, apart from Camp Pur, the incidence of enteric fever at Roorkee has always been low. It is probable that the comparatively small liability is explained by the small number of troops at the station, and by the fact that in companies of artillery large drafts of very young immature soldiers do not join annually from England.

Chakrata.—The excess of admissions among the details at Kailana was probably due to the fact that the details contained a larger number of young soldiers and of soldiers who had been but a short time in India . . . A number of men developed or contracted the disease before arrival at Chakrata . . . Before the departure of the troops for the hills warnings concerning the dangers of the Chakrata route were sent to all the officers commanding and to the medical officers in charge of the line of march, urging them to adopt the most stringent precautions, on account of the past experience of enteric fever contracted on the march to this station, informing them that in the last few years some 135 cases had probably had their origin on the line of march. A district order was published authorising fuel for boiling all water and milk on the line of march, and directing that this should be done. The troops were warned against eating vegetables or bazar products which might convey infection. The medical officers in charge of the line of march report that the boiling of the water and milk was done, and no hawkers were allowed in camp. The water-supply of Chakrata and Kailana was carefully investigated before the arrival of the troops in March 1897. Samples taken from several points were found bacteriologically pure. Nevertheless, as a precaution, a station order was issued authorising fuel for boiling all water and milk, and directing that this should be done. Later in the season samples, manufactured and otherwise, were again examined, and found free from the enteric microbe . . . The true cause of the disease in the majority of the

cases which have come under treatment during the year appears to be infection derived from the soil of rest-camps, or from the floors of cook-houses. We arrive at this conclusion by having eliminated milk and water from being probable carriers, on account of the precautions taken to sterilise them . . . . Rules were printed for the guidance of nursing orderlies to prevent the conveyance of the disease to themselves or others. All mineral water bottles from enteric wards were soaked in Condy's fluid for one or two days to prevent infection in the event of patients, contrary to orders, having drunk direct from the bottle. All urine, fæces, paper, contents of spittoons, etc., were collected in one vessel and boiled every evening . All linen, towels, clothing, etc., from enteric wards were boiled before being given to the *dhobi*. Spoons, plates, and cutlery were disinfected with Condy's fluid . . . Hankin's permanganate rules were adopted for retaining the cleanliness of *mushks*, etc. To prevent infection from the soil or ground, rules for cook-house orderlies were framed and supplied to every cook-house in the station . . . On account of the now fully recognised widespread prevalence of the enteric microbe, the only remedy against its ravages is to adopt biological cleanliness in all things, and to make cooking, eating, and drinking as aseptic operations as an abdominal section, or a bacteriological research. The means of an efficient sterilisation of foods, drinks, utensils, knives and forks, etc., ought not to be found difficult in practice, since the microbe is destroyed by momentary exposure to the temperature of boiling water. To prevent dust infection the floors of enteric wards, and of barracks where cases have arisen should be disinfected by washing with 1 in 100 chloride of lime, a most efficient germicide, which is now manufactured largely in India, but has not yet found its way into Indian military hospitals. Finally, the question arises whether every soldier embarking for India should not be inoculated with killed cultures of Eberth's bacillus in order to establish an artificial immunity.

Agra.—The regiment was new to the country, and thus the men were more susceptible. This in part accounts for the terrible outbreaks of enteric fever, which were of unusual virulence . . . . As was the case in 1896, the municipal water-supply was found to be infected with the enteric microbe, and, as all other articles of food or diet were not so found, by a process of exclusion the water was found to be the source of infection . . . Every precaution possible was taken, even to the drawing of the necessary amount of wood prior to the arrival of the regiment, so that the water for drinking might be boiled before they came into barracks. The boiling of the drinking-water has been done the whole year, and the water is afterwards treated with permanganate of potassium and hydrochloric acid. A committee assembled in November to investigate the outbreak. I have not seen their report yet, but we received orders shortly after to take well water into use for cooking and drinking purposes, so I presume this is due to the action of the committee. This change was made from the 1st of December . . . My theory is that when the enteric microbe appears in the municipal water in spring it is due to the lowness of the river, and hence a concentrated state of all the impurities that find their way into the stream. In the autumn, on the contrary, it is due to the rising of the river sweeping down all the accumulations of filth that have been deposited on the banks, and upon the islands in the river bed which are used for growing melons and are manured with human ordure. What this theory may be worth I do not know; but ever since the introduction of the municipal water to cantonments, enteric fever has been on the increase and there has been a spring and autumn outbreak.

The committee above mentioned reported that though there was no direct proof, there was an overwhelming weight of evidence to show that the water was the cause. They obtained evidence that the river water was exposed to contamination near and above the in-take of the municipal supply.

On the other hand, says the Sanitary Commissioner of the North-Western Provinces and Oudh, "seeing that the water-supply passes through the municipal mains before reaching cantonments, it is a remarkable fact that the civil population enjoyed an almost complete immunity; and that no women and so few children were attacked in the cantonments themselves, is a fact which is not without significance . . . It has not been proved that the water was not locally polluted. The fact that in some samples of water that had been boiled the enteric bacillus was detected points to infection *in situ*."

The Civil Surgeon of Agra computed that there could not be less than 1,000 Europeans and Eurasians in the civil lines, who are liable to attacks of enteric fever : and that in 1897 there had been fewer cases than usual.

The Senior Medical Officer, Agra, said—

There is no doubt but that enteric fever is on the increase in Agra, and this is markedly so since the introduction of the municipal water-supply to cantonments. There have been bad years before certainly, but these years coincided with the advent of fresh troops at the station.

In the extract given before from his "Medical Transactions" the same medical officer mentions the fact that the regiment was new to the country as one reason for the great outbreak of 1897. The following table shows that before the introduction of the new water-supply the enteric fever of Agra was subject to violent fluctuations : whereas since 1894 up till 1897, when the unprec edented rise rook place, the enteric fever annual ratios have maintained a higher level with less ample fluctuation :—

Years.	Admission-rate. per 1,000.	Death-rate per 1,000.
1889	18·9	9·00
1890	42·4	15·08
1891	19·6	·85
1892	15·5	6·01
1893	42·6	12·43
1894*	37·6	5·84
1895	31·1	14·75
1896	44·3	12·40
1897	166·4	45·04

* New water-supply introduced in 1894.

Umballa.—During the year the necessity for strictly carrying out the rules for boiling and pinking the drinking water has been repeatedly brought to the notice of commanding officers, and I believe the rules are usually carried out. Certainly the water is always pinked, though that this does not lead to a laxity with regard to the boiling, I am by no means sure . . . The outbreak in November and December affected the 1st North Staffordshire Regiment . . . Their water-supply was obtained from the cantonment water-works, and is said to have been always properly boiled, and was certainly always pinked. No clue to the cause of the outbreak could at first be obtained, but at last a medical officer reported that he had seen the *bhistis* drawing water from a well in the grass-farm, which had been dug near some old filth-pits. The regiment was immediately removed to another camping ground, and shortly after all *mussacks* were withdrawn from use. This action, allowing for the ordinary incubation period, was followed by a sudden cessation of the disease . . . One important point I must finally notice : only one sergeant and one corporal contracted enteric fever in Umballa during the year, and no officers or members of their families, or civilians. I have frequently asked non-commissioned officers what water they drink, and the invariable reply is that only mineral waters are drunk in their messes. Now there is no difference between the non-commissioned officers' and men's cooks, their food supplies are almost identical, and

there only remains the question of drinking water to account for their immunity from enteric fever.

Dagshai.—I attribute the disease to contaminated water containing the *bacillus typhi abdominalis*, probably drunk in bazars and villages *outside* the cantonment, but am unable to trace the direct source, as every precaution was taken with regard to the boiling of water and milk *inside* the cantonment . . . The water-supply is obtained from springs in the hillside, immediately under the bazar, the barracks, hospitals, and officers' bungalows. The population on the Dagshai hill during the hot season is estimated at about 5,000 ; and with the geological formation of the place I consider that the source is always liable to contamination . . . It is a grave sanitary defect for a population to draw its water-supply from under ground on which so many habitations stand. . . The water has been twice examined during the year at Agra by the Chemical Examiner, but no enteric microbe was detected. An officer was detailed daily by Lieutenant-Colonel J. S. Collins, the 1st Queen's (Royal West Surrey) Regiment, commanding the station, to report that he had actually seen the water boiling . . . . The water was also tested bacteriologically on one occasion, and found absolutely sterile. In spite of these precautions there were eighty cases of enteric fever, many cases of diarrhœa, and several of dysentery. I may here note that I thoroughly satisfied myself by repeated casual inspections that the water was strictly boiled and treated with permanganate of potassium. All milk was also strictly boiled, and for some time the butter made in the 1st Queen's regimental dairy was also made from boiled milk . . . Samples of butter and milk were analysed early in August at Agra by the Chemical Examiner, North-Western Provinces and Oudh, who reported that a microbe probably identical with that of enteric fever was found in the hospital milk, and that *micrococcus Ghadiallii* was found in the milk from the 1st Queen's regimental dairy . . . . I have read a statement that the *micrococcus Ghadiallii* is a microbe that possesses the power of destroying the microbe of enteric fever, and the suggestion has been put forward that this microbe might be used for freeing infected water supplies from the enteric bacillus. The Queen's Regiment, though well supplied with the *micrococcus Ghadiallii*, suffered severely from enteric fever . . . The bread was also analysed by the Chemical Examiner, and no enteric microbe was detected.

Dagshai Military Prison.—The admission and discharge book from 1st January 1889 to 31st December 1897 only records one admission from enteric fever, which occurred in August 1893. The same water, milk, and food in every detail are supplied to the prisoners as are given to the troops. I attribute the excellent health of the prisoners to the scrupulous cleanliness of the building and of the cooking utensils. . . . . No native servants are allowed inside the prison, except the *drabis* in charge of the *pakhals*.

Solon.—Samples of water submitted to the Government Analyst, North-Western Provinces and Oudh, were declared free from the enteric microbe . . . For a short time during this year the water was boiled and treated with permanganate of potash. These precautions were found to be unnecessary, and were discontinued, first the former, and, some time after, the latter.

Subathu.—On analysing the 33 cases we find that 19 were imported from outside, 2 were attributable to impure milk, and 1 appears to have been contracted in the purlieus of the bazar. To each of the remaining 11 it is hard to assign any definite cause, but it is a noteworthy fact that 7 of these men were employed at the time either on military training or musketry. . . The 14 cases forming the first group that occurred were imported. At the time when the first case of May occurred all the water was being boiled and treated with permanganate of potash, but Spring No. 2 was reported by the Government Analyst to be infected with the *bacillus typhi*. No direct relation between this water and the attack could be traced, in spite of very searching investigation . . . No. 2 Spring was at once closed, and arrangements made to bring the water from the Dharmpore road spring, two miles out. On and after the 17th May all drinking water was taken from this source. A comprehensive water scheme is now under execution, which will bring in an ample supply of pure water from some springs five miles out on the eastern side of the hills in the Solon direction. The great desideratum, a pure gathering ground, has, it is believed, been secured . . . On the 3rd of May at the instance of Surgeon-Major-General Harvey, Principal Medical Officer, Punjab Command, the native cooks were all dismissed, and the men undertook, and carried out, all the cooking themselves for the rest of the season. At the hospital the dejecta were all received into bed-pans containing a solution

of perchloride of mercury of 1 in 500. They were then transferred to a specially marked receptacle and mixed with sawdust, shavings, or charcoal dust, and eventually cremated in the hospital compound.

Meean Meer.—In my opinion want of due care and attention in supplying boiled and pinked water was the cause of the disease appearing from time to time. I attribute the great diminution in the number of cases towards the latter half of the year entirely to the active steps taken in having the water supply for drinking purposes properly controlled throughout the barracks, and having the water at the water-works chemically and bacteriologically treated before distribution to the troops . . . . Samples of water were sent to the Chemical Examiner, North-Western Provinces and Oudh, Agra, for analysis and report in June, enteric fever being present in the station. He reported that the enteric microbe was present. The steps then immediately taken were to have the taps at each barrack room cut off, and the supply provided from kitchens only, where it was boiled and chemically treated with permanganate of potassium before use. This method had to be resorted to, as it was found out that the men were in the habit of drinking direct from these taps, instead of taking the boiled and chemically treated water which had been placed convenient for them in their several barrack rooms. Another safeguard taken and recommended by myself was to chemically treat the water in the distribution tank at the water-works before it left there, and thus doubly secure a pure supply. An examination of the return will show that not a single case occurred after that except two imported cases. . . . As an extra precaution suggested by the Principal Medical Officer, Punjab Command (but I must here state that a previous examination of samples of the drinking water by the Chemical Examiner resulted in the report that no enteric microbe was present) the *micrococcus Ghadiallii* was introduced on two separate occasions during the last quarter of the year, 60 tube cultivations prepared and sent by the Chemical Examiner having been introduced. An analysis of samples of the water afterwards by the Chemical Examiner showed that the *micrococcus Ghadiallii* had entered the pipe supply throughout the several barracks.

The medical officer does not explain how the *micrococcus Ghadiallii*, unlike the enteric bacillus, was able to survive the pinking of the water in the distribution tank. He mentions also above that the tap connexion in the barracks had been cut off.

Ferozepore.—The boiling and pinking of all the drinking and cooking water was commenced on June 1st, and continued throughout the year, with the exception of 10 days in December. Of course, as the wells in cantonment were not suspected as being sources of the contagion, this proceeding was not likely to do much good; and may do harm, as the men do not like the boiled and pinked water, and may therefore be induced to drink water from sources other than their proper drinking well . . . Th flatness of the boiled water makes it unpalatable to the men, who avail themselves of every opportunity of using unboiled water.

Fort Lahore.—No cases occurred amongst the permanent residents of the fort or among the women and children. The drinking water is boiled and pinked with permanganate of potassium; and lately the water supply is obtained from the municipal water-works from a supply-pipe placed inside the fort . . Up to August the water was obtained from well No. 89, which was specially reserved for this purpose, but bacteriological and chemical examination reported the supply as being suspicious. The wells are maintained in working order, and are used for washing and gardening purposes.

Amritsar.—Samples of water from all the wells used by the British troops were sent for bacteriological examination to Mr. Hankin . . . On the receipt of the result of the examination the wells were all cleaned out, and the water treated with potassium permanganate and hydrochloric acid, as suggested by Mr. Hankin. With reference to these analyses, the somewhat curious fact will be observed that microbes probably identical with those of enteric fever, were found in all the samples, except that drawn from the tank above described, from which the drinking and cooking water is directly drawn.

Cherat.—Enteric prevailed during the months of May, June, and July.* It was attributed to the regimental dairies, which were under native control. The milk had evidently been adulterated with dirty water from a tank close to the dairies. The enteric bacillus was found in this tank. The epidemic ceased when the management and position of the dairies were rectified . . . A large number of the cases came from a barrack room close to, and from tents pitched on, the site of the Base Hospital in the Chitral campaign.

* And August.—See Table VIII.

The soil was, there was no doubt, saturated with filth, and at sunset a foul smell could invariably be detected.

St. Thomas' Mount.—The number of cases for each of the five years 1893–97 have been—0, 2, 4*, 3, 4. The cause can scarcely exist in the drinking water which, since the latter part of 1896, has been treated by boiling and the addition of potassium permanganate, and filtration has been given up . . . . Yet the cases of enteric fever occur in pretty much the same numbers, year by year, whether the water is filtered only, or boiled and treated with permanganate of potassium. It is more likely that the poison has been introduced in individual cases by such articles as bazar milk, and bazar food and drinks, and not by some common article of supply used by all the troops alike. Such cases could only be prevented or lessened by caution and care on the part of the individuals concerned, and they are the persons least likely to exercise it.

Secunderabad.—The men at first objected to the taste of the permanganated water, but do not now.

Belgam.—In one case, that of Private Holt, the man had a previous history of climatic dysentery of many weeks standing. The dysenteric symptoms disappeared while the enteric fever lasted, and re-appeared during the convalescence. Acute hepatitis was observed on the 26th day, with return of fever. The man's condition was very critical on the 31st day. Hepatic abscess was diagnosed on the 33rd day, and on the following day it burst into the bowel. After the bursting of the hepatic abscess, convalescence was rapid and uninterrupted. The enteric symptoms were typical; the eruption was well-marked; and defervescence occurred on the 21st day.

Rangoon.—The supply from the wells naturally ran short just before the rains, and water from the Royal Lakes had to be taken into use for general purposes at that time. But I am assured by the regimental authorities that this water was never used for drinking purposes. . . . One case, that of Private Downing, was interesting as presenting a combination of enteric fever with dysentery. The *post-mortem* examination showed the characteristic ulceration of both diseases. The large intestine was a mass of ulceration and general inflammation; while the lower portion of the small intestine presented typical enteric ulcers on the sites of Peyer's patches, in all stages.

Mandalay.—The whole water-supply is liable to pollution from animals and natives, and no amount of supervision that could be practicable would prevent this entirely. Notwithstanding all these drawbacks, the station is particularly free from enteric fever and cholera, two diseases one would expect to find very prevalent, looking at the water-supply . . . The water as it is taken from the moat is not safe for drinking purposes. It is therefore boiled, and then treated with the permanganate of potassium before use.

Ahmednagar.—Considering the care bestowed on the boiling and permanganating of the water, on the food, milk, butter, aërated waters, and on the conservancy . . . it is hard to believe that the disease originated in barracks. I believe that there would be a remarkable diminution of enteric cases if the troops were prohibited from visiting the bazars. . . The bazars cannot be held accountable for the cases admitted in the last quarter of the year, when, on the outbreak of plague, the bazar was evacuated and placed out of bounds, and the city also closed to the troops. Perhaps in these instances the men may have drunk unboiled water in barracks, the supply being from an unlined subterranean aqueduct liable to pollution . . . Although all drinking water in barracks is boiled and treated with permanganate of potassium, soldiers are often careless as to whether they drink boiled or unboiled water . . . . An analysis of the water was made twice during the year, with favourable results: and on two occasions samples have been sent to Mr. Hankin, Government Analyst and Bacteriologist at Agra, but with negative results . . . . I believe that it would be a change for the better if native cooks were abolished, and the preparation of the food and all connected with cooking were done by the men themselves. . . . Anything that would tend to lessen the number of natives in the barracks, especially in connexion with the cook-houses, would not fail to be advantageous to the health of the troops. The washing up and cleaning, and the putting aside of articles left over from a meal, should be done by the men themselves, and not left to the handling of dirty natives.

Mhow.—The water is very muddy during the rains, and contains a large quantity of vegetable *débris* and suspended matter, and is quite undrinkable without sediment-

* Three in Table VIII. of 1895.

ation by alum. During the past year all water for the troops is supposed to have been boiled, and treated with permanganate of potassium; but, owing to the primitive and altogether insufficient means in the cook-houses for boiling, I wrote urgently on the subject, and received a communication from Command Head Quarters that the Larymore boilers had been sanctioned . . . A court of inquiry composed of three medical officers was ordered by the General Officer Commanding to enquire into the cause of the first epidemic, and by circumstantial evidence it was enabled to trace it to the milk and butter supply. In the monsoon epidemic inappropriate clothing was an exciting cause . . . . During the monsoon epidemic four cases were complicated with dysentery . . . . In 10 out of 24 samples of water and other articles neither *bacillus coli* nor the enteric bacillus was detected. In March *bacillus coli* was found in two specimens of tap water and in two of lake water. On the 27th March the Enteric Destroyer (*micrococcus Ghadiallii*) was added largely to the Baircha lake. The examination of the specimens in April and May gave negative results. In July a microbe "probably identical with that of enteric fever" was found in two samples from the bottom of the S. reservoir, two from the cavalry barracks, one from the cavalry married quarters (this reacted to Pfeiffer's test), one from the Baircha lake, and one from a filter in an officers' mess; while in November tap water, lake water, and filter-charcoal were found to contain a microbe "resembling that of enteric fever."

On the other hand, the Principal Medical Officer of the district holds a very decided opinion that the medical officer and the committee were wrong in attributing the outbreak to milk and butter. He considers that the disease was water-borne, and points to the medical officer's admission "that the boiling of the water is in a great measure hypothetical." Before one could be in a position to judge of the value of the information given, that one of the microbes discovered in the water "reacted witn Pfeiffer's test," it would be necessary to know the source of the bacillus used to render the serum specific.

Nasirabad.—The Danta water contains the enteric microbe according to the Government Analyst, North-Western Provinces and Oudh, and to prevent its being drunk, a notice is pasted at each standpipe that "this water is not for drinking." But in spite of these notices men own that they do drink it sometimes. The drinking water from Dilwara is stated to be free from the enteric microbe, yet the well is open to pollution, as it is used by villagers and others passing by. Whatever the cause of the enteric fever may be, it is most active in April, May, and September, and during these months there is usually much dust blowing about.

Neemuch.—The Royal Artillery have a most excellent mineral water factory, provided with a new machine and a Pasteur-Chamberland filter of 20 candles. The water used is purified as follows: On being brought from the well it is placed in a galvanised iron cistern on a high level, and alum is added to cause sedimentation. It is then syphoned into a second cistern, where it is treated with permanganate of potassium, and then passed through the filter. Great care is taken in the cleaning of the bottles: they are washed in a claret-coloured solution of potassium permanganate.

Deesa.—In April enteric bacilli were found by Mr. Hankin in the *gurrahs* used for drinking water in the Royal Artillery barracks. It is possible that most of the cases in the Royal Artillery may have incurred enteric fever from this source . . . . No less than 10 out of the 15 cases occurred amongst the Royal Artillery. The first cases in the battery were of two men who while at the artillery practice camp had been exposed to great heat and unusual fatigue. They both allowed that they had then drunk village water and also from the horse troughs. It is possible that these men may have infected their barrack rooms on their return, as 7 cases were admitted from these two barrack rooms within the next three months. In April last samples of water were sent for bacteriological examination to Mr. Hankin, who found enteric bacilli in the water from the *gurrahs* used for drinking water in the barrack room in which most of the cases occurred amongst the Royal Artillery. He also found enteric bacilli in water from the hospital well (which has never been used for drinking), and also in water from the *sadar bazar* well. As against this evidence being entirely reliable, it may be mentioned that enteric bacilli were also found in Surgeon-Major Mitchell's drinking water, which had been boiled and passed through a Pasteur filter.

Kamptee.—For enteric fever there were 10 admissions with 4 deaths against 12* admissions and 6 deaths for last year; a decrease probably due to the wells being permanganated the whole year.

* Eleven in Table VIII of 1896 : the reduction would then be 9 per cent.

A reduction in the admissions from enteric fever of under 17 per cent. is not a very striking result of all the care said to have been bestowed upon the wells, water, and vessels.

Quetta.—Bacteriological analysis of the soda-water supplied to all the corps was recently made by Surgeon-Captains Melville and McNaught The soda-water of the 2nd Battalion, Lancashire Fusiliers was found to contain the *bacillus coli communis.*

Result of special Sanitary Investigations.

17. Surgeon-Major A. M. Davies, A.M.S., on special duty for sanitary investigations, has submitted full, scientific, and very useful reports for several stations, the following being his conclusions in brief.

Subathu. July 1897.—The presence of *bacillus coli*, or some variety of coliform organism, and therefore the probability of excremental contamination, has been indicated in samples of water from No. II tank, No I tank (in connexion with a deposit of mud in the conduit leading thereto), in one sample from the new supply on the Dharmpur road (not in a second sample), in water (derived from the same source) used at the rifle-range, in the samples from below the wood depôt, and from the fort tank: also, in milk from the regimental dairy and from the bazar; also, but doubtfully, in soda-water from the regimental factory (two samples). Samples of drinking water from the camping grounds of Lalru, Mubarrikpur, and Dharmpur did not show the presence of any coliform organism clearly, but on account of the presence of putrefactive germs, and the time that had elapsed between taking the sample and making the examination, this result must be considered inconclusive. The presence of the *bacillus typhi* has not been indicated in any sample examined, with the exception of the growths on potato obtained from Dharmpur road new supply (second sample), and from water used at the rifle-range. The significance of this is doubtful. With regard to the significance of the "coliform" organisms so frequently referred to in the above examinations, I beg to quote the following words of Professor E. J. McWeeney (Bacteriological Examination of Water supplied to Dublin Barracks, *British Medical Journal*, 12th September 1895),* which exactly represent my own opinion that "these pseudo-typhoid or coliform organisms occur regularly and abundantly in water to which attaches the suspicion of causing typhoid fever—very seldom, and in small numbers, in water which is beyond the possibility of sewage contamination" . . The principal result of this inquiry has been to confirm what has been previously believed to be the case in regard to the sanitary condition of Subathu, *viz.*, that the water-supply is both deficient in quantity and bad in quality. The quantity has now been increased to meet the necessary requirements both for the troops and for the native population: the quality will not be satisfactory so long as either of the springs (Nos. 1 and 2) situated on the Kasauli road continue to be used. That these springs have been liable to contamination is evident on inspection; and that they have been actually contaminated has been shown by bacteriological examination, the present experiments confirming generally what had been previously stated by the Chemical Examiner, North-Western Provinces and Oudh. Probably in direct connexion with the impurity of the water-supply, the milk and the mineral waters have been found to be unsatisfactory. No sanitary defects have been found in the barracks or in the station generally; except that a scanty and impure water-supply renders the native quarter more insanitary than would otherwise be the case, and makes it a source of danger to troops who have free access to it and partake of food and drink prepared there. The disposal of night soil and other refuse by the Garlick incinerator is not conducted properly. Although these insanitary conditions might have accounted for the prevalence of a filth-disease, such as enteric fever (and in previous years have perhaps actually done so) with regard to the recent limited outbreak, on careful examination into the cases, it does not appear that more than three, or perhaps four, out of the whole number of 19,† have originated in Subathu. It seems clear that two cases were contracted before leaving Umballa, and 12 or 13 on the march from Umballa to Subathu. Inquiry into the circumstances of the march, and examination of the drinking water of three of the camping grounds (which was reported to be of bad quality) has not enabled any definite conclusion to be drawn as to the manner or the means by which the infection was conveyed. That this has not been demonstrated is a matter for regret; but the problem is complicated, and difficult of solution

* [See also Report for 1895 of the Sanitary Commissioner with the Government of India, page 25.]

† This figure is not understood; see Subathu in paragraph 16.

after some time has elapsed. Not only the drinking water, but the milk and the mineral waters supplied on the march fall under suspicion. There is a possibility also of the infection having been contracted during the halt at Kalka; and specific infection of the camp latrines is very likely to have taken place, due to the cases of fever brought from Umballa. These, however, are suppositions only. There are many ways in which, on inquiry, it is found that enteric fever *may* have been contracted: it has not been found possible to prove that the disease actually *was* conveyed in any one of these ways: the only certainty is that nearly all the cases originated before arrival at Subathu, and most of these on the march up.

Dagshai. August 1897.—The presence of the specific germ of enteric fever—*bacillus typhi abdominalis*—has been demonstrated in one of the sources of water-supply that has been in use at Dagshai during the past few months, that known as the Bazar Spring. From the other spring, called the Dhobi Ghat Spring, an organism was isolated, belonging to the coliform group, and answering to most of the tests that characterise *bacillus coli communis*, but yet in some ways resembling *bacillus typhi*. Neither of these organisms was found in the specimen of boiled water, nor in any of the samples of milk or soda water examined, except in the milk from Dwarka Dass' dairy, which contained either *bacillus coli* or some closely allied bacillus. The drinking water at Solon and Jutogh did not show any sign of the presence of pathogenic germs . . . In this Dagshai epidemic, as in that at Subathu, enteric fever was introduced into the station from Umballa, and probably also from some of the camping grounds on the line of march, or by infection from drinking water, or food supplies, or bazar drinks, during the march. In this epidemic, contrary to what happened at Subathu, the majority of the cases were undoubtedly contracted in the station. At Subathu the infection was introduced, but did not spread: at Dagshai it was introduced, and it increased and multiplied, or was already present, though without having shown itself, during the preceding cold weather . . . The following inferences may be drawn from the facts discovered by examination:—(i) *The specifically polluted drinking water* very likely accounted for some of the cases; but as great care was taken to obviate the danger as much as possible by boiling it, and by treatment with permanganate of potassium, I do not consider that the epidemic, as a whole, can be attributed to this cause. In two particular cases the two married women who got the disease, and who had been in the habit of drinking the water without boiling it, there can, however, be little doubt that this, as it was the most obvious, so it was the real, cause of their illness. (ii) The peculiarity* of the conservancy arrangements; the defective position of the latrines and cook-houses, in dangerous proximity to each other in some cases; and the absence of any arrangements to keep out flies from the cook-houses, lead to the inference that *specific infection of food from specific stools* was the cause of many cases in this epidemic; and the supposition is rendered extremely probable by the strict localisation of two groups of cases. (iii) In several cases it appeared most probable that some particular mode of infection had occurred. Such were, *direct infection* in the cases contracted in hospital, *water procured from natives, infection in the bazar*, food prepared in the bazar. These are all reasonable suppositions, but only suppositions (iv) Lastly, the absence of any case of enteric fever in the military prison may be explained in accordance with the above inferences. The water was carefully boiled and treated with permanganate; the cook-house and latrine are very far removed from each other at opposite corners of the prison enclosure; while none of the modes of infection suggested in the preceding paragraph could, *ex necessitate rei*, be in operation. It need not be supposed that one cause, or rather one mode or channel, of infection only exists to account for an epidemic: several may be found to be present, one acting for some, another for other, cases; and so on. As the whole of Dagshai, except Officers' Hill, must be regarded as infected (barrack buildings, hospital, latrines, and water-supply) complete evacuation† for an entire year, or at least until the new water-supply be introduced, would be probably most advisable. At present it can only be looked upon as a plague spot.

Mhow. January and February 1898.—In none of the samples examined was either *bacillus typhi* or *bacillus coli* detected; but in all the samples, except the soda-waters made in the two regimental factories, some organism was present capable of growing in phenolated broth . . . Although the organisms obtained from the various samples by Parietti's method did not answer to the characters of either *bacillus typhi* or *bacillus coli*

* Dry earth is not used to cover night-soil, nor any substitute for it.

† The evacuation here recommended was carried out from March 1st 1898.

in gelatine cultivations, it would perhaps be inadvisable to ignore their significance. In no case (except in a sample of milk) were they apparently of the ordinary widely diffused kinds (such as *bacillus subtilis* and *bacillus mesentericus vulgatus*) present in dust; because these germs produce a well-marked pellicle in the Parietti broth, which was conspicuously absent in these experiments. With regard to the water taken from the service reservoir, the sample from the "Mhow Dairy," the butter from the station hospital (derived also from the same dairy), and the sample of butter from the "Central India Dairy," an organism was detected answering to the characters of *Proteus Zenkeri*, which must be considered indicative of serious contamination. Klein (*Micro-organisms and Disease*, 1896, page 196) refers to a variety of this "species" as being especially important in diagnosing sewage pollution of water, more so than the presence of *bacillus coli* in limited numbers, as it is rarely found outside sewage. . . . . Without positively asserting that excremental pollution has actually occurred in the water and in the dairy samples in which it has been detected, I think that its presence must be looked on as of grave significance. With regard to the other organisms found in other samples (except where noted incidentally) I do not feel able to offer an opinion; but the presence in nearly all samples of non-liquefying phenol-resisting germs, capable of growing at blood temperature, is, as far as I can judge, unsatisfactory. As far as *numbers* of germs is concerned, the difference is very noticeable between the water in the Bercha reservoir (exposed to the air, but not near dwellings or frequented roads) and that in the service reservoir (near barracks, roads, and a parade-ground), and that derived from a bazar well (in a thickly populated neighbourhood, but with a comparatively small surface exposed to air and dust). The water of this service reservoir contains nearly five times as many germs per cubic centimetre as the Bercha water; and the sediment contains numerous large infusoria (*paramœcium* and the like) not found in pure waters, and very generally found in fæcally-polluted waters. In the soda-water samples the actual numbers of germs found are perhaps misleading . . . . . The sample of milk examined only showed dust-contamination: the cream and butter samples contained *Proteus Zenkeri*, or a variety . . . . . The drinking water is boiled in camp kettles or large *degchis* in the cook-houses: it is then taken (while hot) to the Macnamara receptacles: alum is added to precipitate suspended matter, and, either simultaneously, or soon after, permanganate of potash solution: when the water is cold or cool it is drawn off and kept in wide-mouthed *chatties*, which stand in the verandahs or barrack-rooms. As thus carried out, the whole proceeding is managed with a minimum of trouble to all concerned, in the quickest way possible, and, it may be added, without being of the least use. The boiling of the water is done on the cook-house fires, and probably hastily and perfunctorily, because there is neither time nor space to do it properly: the hot water is placed in the metal Macnamara receptacles, in which (during warm weather, or in the middle of the day) it with difficulty ever gets cool: the permanganate is added before the water is cold, which should not be done: lastly, the water is kept for use in the ordinary wide-mouthed earthenware *chatties*, which are used instead of *surahis*, these latter being now forbidden (or at least not allowed). The *chatties* are supplied with wooden lids to keep out the dust: these lids are generally lying on the floor near at hand: in order to take water out of the *chatty* a man has to dip in his mug, in doing which he probably introduces his hand into the water: there are thus two ways in which these *chatties* are almost unavoidably liable to contaminate the water: by exposure to dust, and by introduction of the hand. It does not seem to be understood that when water has been boiled, and so deprived of most of its natural bacterial population, if unnatural bacteria, that is pathogenic organisms, gain access, they have a much better chance of growing and multiplying than if the water had not been boiled at all: the last state of that water is worse than the first. It is most necessary to protect the boiled water from contamination, as well as to drink it as soon as possible . . . . . It is to be regretted that with water derived from a pure source, such as is the Bercha water, boiling and treatment with permanganate should be required at all. With the present liability to contamination, both at the Bercha reservoir and at the service reservoir, it would not, in my opinion, be advisable to relax these precautions. The use of Larymore boilers will simplify and facilitate matters . . .

An investigation into the sanitary condition of Mhow as it is at present (or rather, as it was until quite recently) with a view to tracing out the connexion between any observed defects and the recent occurrence of epidemic enteric fever, shows that there are several points of danger about which, I think, there can be no difference of opinion (1) As to the water-supply: this I believe to be excellent in its origin, but exposed to great liability

to pollution both (*a*) at the Bercha reservoir, from the practically unrestricted access of natives; and (*b*) at the service reservoir, which is open to receive the dust from immediately adjoining roads and parade-ground, as well as barrack bungalows at no great distance . . . . (2) As to the *aërated water-supply*: this is derived partly from regimental factories, partly from the bazar. The regimental factories are both very well managed, and supply excellent and wholesome mineral waters. I consider the mineral waters supplied by two of the bazar shops wholesome, but those made by the other four firms unwholesome and dangerous. . . . (3) As to *milk and butter* supplies: these are almost entirely derived from the bazar, and for this reason, in my opinion, to be condemned as unfit. . . . . (4) As to the *sanitary state of barracks*, etc.: the cookhouses are not in any way protected from flies; in the latrines the details of the dry earth system are not always strictly carried out . . . . . The small bazar in the European infantry lines, with its hucksters' shops for selling inferior articles of tinned food and unwholesome mineral waters, from its being *in* the lines and a few yards only from the barrack bungalows, is a standing source of danger . . . . . (5) As to the *sadar bazar*; this is a native city of over 23,000 inhabitants, densely packed together, and living within a few hundred yards of the cavalry lines. In the course of years the soil has become much contaminated. Since 1888 a much larger quantity of water has been introduced than before, and until the year just past no adequate provision had been made for carrying away the waste and refuse water by any system of drainage. The polluted soil has therefore been altered from a naturally very dry to a relatively moist soil. This would be likely to have an injurious effect on health. As a matter of fact, there has been a distinct and increasing prevalence of fever, of enteric type, amongst the bazar population; and this has, I think, been due to the soil pollution that previously existed having been brought into activity, and made pathogenic, by the increase in the moisture. Owing to the nearness of the bazar to the barracks (especially the cavalry barracks), and the close connexion that has existed between the troops and the bazar, through supplies of milk, butter, and aërated waters, that have been derived from thence, this unhealthiness of the bazar population is a source of danger to the troops. It is in this last mentioned connexion that I think is to be found one of the causes of the recent outbreaks of enteric fever. Although the water-supply is not altogether satisfactory; if that had been the cause, the outbreaks would probably have been more widespread than they were. The infection of food supplies (such as aërated waters, milk, or butter) would probably be more restricted in its effects. That such infection did occur cannot now be proved; but the condition of things above described as now existing certainly shows that it was not unlikely. The disease having been introduced among the troops seems in two groups of cases to have been spread through some local condition that carried on the infection. This might have been through defective carrying out of the dry earth system; which is not unlikely, but cannot be asserted to have been the case . . . . The gist of my recommendations is in a word: (1) protect the water-supply from its present obvious danger of contamination; (2) cut off all connexion between the bazar and the troops as regards supplies of food and drink; (3) continue the present sanitary improvements in the native city.

Rangoon. March 1898.—As to the *water-supply*: this is defective in quantity, and, on the whole, bad in quality. For the greater part of the year the drinking and cooking water is derived from shallow wells, badly constructed and (latterly) badly taken care of, which allow soakage in of impurities from the surrounding soil and sub-soil. For about three months in the year this supply practically fails, and the troops have to fall back upon water from the Royal Lake, a reservoir which also supplies the city of Rangoon, but which is objectionable, being liable to pollution in several ways. The opinion formed from inspection of these sources of water-supply is corroborated by the results of bacteriological examination: all the waters showed evidence of admixture with impurities, either derived from the air or from the surface and sub-soil: three wells were found contaminated by a putrefactive organism (*Proteus vulgaris*): the number of germs in every case was large. The water-supply for the troops can only be described, in most uncompromising terms, as bad. Boiling and the use of permanganate of potash are carried out regularly and carefully . . . As regards *dairy supplies* this cantonment is very badly off . . . . The *sadar bazar* is of small size, but its condition is most unsatisfactory . . . . The outbreak of enteric fever in 1897 commenced shortly after the breaking of the rains, and, in my opinion, was most probably due to pollution of the shallow wells that supply drinking water to the troops. It is certain that these wells must have been polluted with

organic matter from the surrounding surface soil and sub-soil, as is shown both by inspection of their structure and surroundings and by bacterial examination of the water. The outbreak of fever having commenced shortly after this occurred, this would be a sufficient cause, and no other cause is so probable . . . The provision of a new water-supply is, in my opinion, a matter of urgent necessity. As a temporary measure, the cementing of the existing wells to a depth of 25 feet would to a great extent obviate the present danger; but, as the supply is insufficient in quantity, as well as of bad quality, nothing short of a fresh supply would be satisfactory. As far as I am able to judge, the sinking of a tube well to a depth of 150 or 200 feet appears to be the best plan to be adopted.

Cherat. June 1898.—Neither the specific bacillus of enteric fever, nor any of the nearly related forms that are known as the coliform group, were detected in any of the samples cultivated. The number of germs found in the Chapri water (220 colonies per cubic centemetre) was larger than would be expected in a pure spring water. This is probably to be accounted for by the water being stored in a reservoir, the temperature at the time (June) being rather high (about 80° F.). Some of these germs were able to grow in nutrient broth at the blood temperature in the presence of carbolic and hydrochloric acids (Parietti's test), and a fluorescent bacillus was isolated in this way. This is of no hygienic significance, and the water may be considered as of good quality. The water taken from a leather *pakhal* contained *at least* four times as many germs per cubic centimetre as the original spring water; and besides a fluorescent bacillus (of no importance) many *Proteus* colonies were found, which is an objectionable organism, derived from putrefying matter, and itself the cause of putrefaction. The presence of this, and the large increase of germs contained in the water, indicate that it is liable to pollution in the *pakhals*. The soda-water, although supposed to be prepared from boiled water, contained 660 colonies per cubic centimetre,—about three times as many as were found in the spring water. Among them *Proteus* forms were seen. The large number and the presence of *Proteus* were no doubt the result of the water being conveyed in *pakhals*, and show that boiling had not been properly carried out. The sample of milk did not contain any putrefactive or unwholesome germs, and may be considered as bacterially of good quality. The net result of the bacterial examination is that the water-supply from Chapri is of good quality; but that it is liable to pollution in its conveyance up to Cherat in leather *pakhals*. . . . . As to the causation of the severe outbreak of enteric fever last year (1897) I do not feel able to express any confident opinion; but an inquiry into its course and distribution leads me to think that probably it was not due principally to a generally contaminated water-supply, but to some partial or local causes of infection, such as contaminated milk, specifically contaminated latrines, or infection of cook-houses. Some companies and some bungalows had a much greater incidence of disease than others, pointing to a localised or partial infection. It is not unlikely that the infection in the first instance was introduced into the station from Peshawar or from the line of march . . . With an excellent source of water-supply and an unsatisfactory mode of distribution, the most essential sanitary improvement required is to bring the water up into Cherat itself by pipes, and so do away with the risks and waste due to the present arrangement . . . In the meantime, I beg to recommend that leather *pakhals* and *mussacks* be entirely abolished, and the water carried up in metal vessels.

The investigations at Subathu and Dagshai were made in 1897: at the other stations in 1898, but with special reference to the enteric fever of 1897. Other reports by the same officer have not yet been received in this office. They will be noticed in the next annual volume.

Enteric Fever in 1897.

18. There was a considerable increase of both morbidity and mortality from enteric fever in 1897. The admission ratio (Table I) rose from 25·5 to 32·4, and the death ratio from 6·31 to 9·01, a difference of 6·9 and 2·70 per mille, respectively. There were (Table IV) 2,214 admissions and 616 deaths, against 1,795 and 445 in 1896. The average number of men constantly sick from enteric fever was 297, and the average duration of a case was 53 days. The total loss of service due to the disease was about 108,350 days. At Dagshai and Quetta Widal's test was employed as a means of diagnosis.

Fever Mortality.

19. The following table shows an increase in total fever mortality, which may with some reason be ascribed to the greater youthfulness and less average length of service of the soldiers of to-day :—

	1870-79.			1881-90.†			1896.			1897.		
	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.	Enteric fever.	Other fevers.*	Total of both.
Army of India	2·03	1·42	3·45	3·79	·70	4·49	6·31	·50	6·81	9·01	1·02	10·03

* Intermittent, remittent, and simple continued fevers.
† Excluding troops on active service in Burma during 1885 to 1887.

As compared with the decennia, 1896 exhibits a more usual state of matters than 1897,—an increase of mortality from enteric fever accompanied by a decrease in mortality from the other fevers, which condition of things is usually, and probably with right, ascribed partly to increased susceptibility to enteric fever on the part of the army from youth and recent arrival, and partly to the increasing frequency with which the diagnosis of enteric fever has been made. The year 1897 had a high death-rate from "other fevers," because it was a very malarious year. But the statistics of the last twelve years lend no support to the supposition that prevalence of and mortality from Indian enteric fever vary directly as the malariousness of the year.

Enteric Fever in the Geographical Groups.

20. The following table shows enteric fever in the geographical groups in the decennium 1886-95 and in the last two years :—

Admissions per thousand.

Period.	Burma Coast and Bay Islands.	Burma Inland.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-Western Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts, and Sanitaria.
	I.	II.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XIIa.	XIIb.
1886—95	5·7	5·5	7·7	27·7	25·4	15·6	23·9	17·0	5·8	12·1	25·1	13·9
1896	13·0	4·5	18·3	40·0	19·8	23·8	31·4	23·1	17·4	16·0	47·2	10·3
1897	10·8	1·1	11·0	36·9	33·5	22·3	63·7	24·3	10·2	26·8	49·7	14·9

It shows that Groups V, VI, VIII, and XII*a* especially, are apt to have high ratios of admission from enteric fever, and Groups II and X, and, to a less extent, I and IV, low ratios. It also shows at a glance how the groups compare with each other in 1897, and how 1897 compares with 1896 or with the decennium. Group VIII had the highest ratio of 1897, and Group XII*a* the next highest, and in the same two groups also, but in the reverse order, the percentage of enteric fever in total admissions was greatest. The table also shows that, whereas in nine groups the ratios of both 1896 and 1897 were higher than the corresponding ratios of the decennium, only in Burma Inland were the ratios of both years lower than the decennial ratios. Further particulars regarding groups may be obtained in Tables II, III, IV, and VIII.

21. The distribution of enteric fever throughout the year by stations and months may be studied in Table VIII. But the following shows those garrisons which had an average strength of over 1,000 in 1897, with the decennial ratios for reference:—

Enteric Fever in Stations.

Stations.	1897.		Decennium, 1886–95.	
	Admission-rate.	Death-rate.	Admission-rate.	Death-rate.
Agra	166·4	45·04	24·0	7·66
Umballa	64·1	15·32	21·7	5·41
Mhow	49·0	16·95	27·5	6·78
Lucknow	48 5	11·93	37·3	7·07
Meerut	47·4	18·58	26·8	7 83
Allahabad*	44·8	14·34	24·2	4·84
Peshawar	44·2	26·93	18·7	7 88
Bangalore	40 2	7·20	16·0	3·47
Secunderabad	36·2	8·77	23·7	6·04
Rawalpindi	32·2	7·79	24·5	6·85
Rangoon	22·6	6·60	5·4	2·55
Quetta	22·5	4·77	15·0	3·15
Poona	18·1	2·52	15 4	5·06
Bareilly	14·7	5·50	39·8	9·41
Wellington	11·7	2·94	7 5	2·46
Kurrachee	8·2	3·64	13·8	3·07
Colaba	3·5	·89	4·9	1·83
Fort Dufferin	2·0	1·99	6·8†	2·47†
Mooltan	1·9	·96	16·8	4·18
Fort William	...	...	4·3	2·13
Aden	...	...	3·5	1 81

* Including Fort Allahabad.
† Eight years.

The high position occupied by the decennial admission ratios of Bareilly and Lucknow will be observed, and the low position of the ratios of Aden, Calcutta, Bombay, and Rangoon. The enteric fever of stations may be studied with the aid of Tables III, IV, and VIII. In paragraphs 16 and 17 have been quoted the reasons given by medical officers for the prevalence of enteric fever in, or the absence of enteric fever from, certain stations; but in addition, the names of most of the stations of the above table that had high ratios in 1897 will be found in Table V.

22. The enteric fever of regiments and of the different arms of the service may be studied in Table XIV. The admission and death rates were highest in the cavalry; there was no enteric fever among the engineers, and, next to them, the artillery suffered least. The table shows that the regiments which had an admission rate over 100 per 1,000 and a death-rate over 40 per 1,000 were the 1st Battalion, North Staffordshire, at Umballa, and the 2nd Battalion, York and Lancaster, at Agra. The former arrived from Egypt on the 1st November 1897, and the latter from Mauritius and South Africa on the 21st February 1897. In the report for 1896, paragraph 21, it is mentioned that one of the regiments that suffered most in that year had arrived during the year from Mauritius. In 1897 the North Staffordshire had 51 cases and 8 deaths, the York and Lancaster 165 cases and 45 deaths. The 1st Battalion, Royal West Surrey, and the 1st Battalion, East Kent, had also admission ratios over 100

Enteric Fever in Regiments.

per mille, and five other regiments admission ratios over 50 per mille. All but one of these seven regiments received over 100 men from England during the year.

Enteric Fever and Age. Enteric Fever and Length of Residence in India.

23. The relation of mortality from enteric fever to age and length of residence in India may be studied in Table XVI. The general results confirm those of former years. The construction of the table was explained in Section II of the report for 1896, paragraphs 22 and 37; but a few sentences may here be given to show how the table is to be read. The ratio of mortality from enteric fever per 1,000 of strength (*a*) was greatest in the age-period 20—25, and the relative liability of the same period (*b*) was 46 per cent. In the same age-period the total number of deaths from enteric fever (*c*) was 417, and out of a hundred deaths from all causes (*d*) 56 were from enteric fever. Lastly, out of the total number that died at all ages from enteric fever (*f*) 76 per cent. were between 20 and 25 years of age. Again, the ratio of mortality from enteric fever per 1,000 of strength (*g*) was highest in the first year of residence, and the liability (*h*) in the same year was 36 per cent. In the first year the total number of deaths from enteric fever (*i*) was 215, and 64 out of every hundred deaths from all causes (*j*) were from enteric fever. Lastly, out of the total number that died at all periods (*l*) of residence from enteric fever, 39 per cent. were in the first year of Indian residence.

Table XV gives some information regarding the relation of *admission* from enteric fever to age and length of residence in India. The age period 20—25 included 52 per cent. of the total strength of the army, and in the same period the liability to fall sick of enteric fever was greatest, 44 per cent. In the succeeding periods the liability rapidly and gradually declined. Again, 19 per cent. of the men of the army were of less than one year's service in India, and it was among the men of this percentage that the liability to contract enteric fever was greatest, the liability thereafter markedly declining. The lower part of the table, marked "B", shows that since arrivals have increased, and since the percentage in the army of men under 25 years of age and of men with less than 5 years' Indian residence has been gradually mounting, the admission ratio from enteric fever has also been rising. The greater has become the supply of susceptible material, the more the disease has prevailed.

Enteric Fever and Season.

24. The monthly incidence of enteric fever may be studied in Table VIII. In the period 1886—95 as a whole the chief enteric fever season, though the disease occurred in all months, was the six months April—September, with one maximum in May and another in August:—

Years.*	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio per 1,000.
1886-95† . . .	518	418	689	1,427	1,795	1,365	1,441	1,718	1,400	923	745	879	13,318	19·6
1897† . . .	86	79	147	313	223	168	179	238	232	131	207	211	2,214	32·4

* The warning given at the end of the table of contents of the Annual Returns as to the months not being calendar months, applies here also.

† Including men on Field Service.

In 1897 the greatest prevalence of enteric fever was in April and May, and again in August and September; of simple continued fever in June and July; of remittent fever in November, September, and October. Of the larger groups Southern India had its enteric fever maxima in February and July, the Deccan in March and September, the Indus Valley in March and November, the Hills in April and July, Central India in April and August, Gangetic Plain and Upper Sub-Himalayan in May and December.

Plague.

25. In the European army of India there occurred only 5 cases of plague, and none of them proved fatal:

	Admissions.
Bombay (Colaba)	3
Poona	1
Purandhar	1
	5

The medical officer at Colaba says that the disease having been prevalent in the city of Bombay since September 1896, and a few cases having occurred within the European lines at Colaba among native servants and employés during the months of December 1896 and January 1897, the first case was admitted to the station hospital from the 3rd Company, Eastern Division, Royal Artillery, in Fort Mahaluxmi on the 31st January 1897, the second from the 2nd Battalion, Royal Dublin Fusiliers, on the 6th March, and the third from the same regiment on the 7th March. In all three cases the diagnosis was made in consultation; and the two last cases were seen by Dr. Yersin, who concurred in the diagnosis. The man found to have plague at Poona on the 29th September 1897 was a Bombardier, Royal Artillery, employed as a clerk in the District Staff Office, and living in the *sadar bazar*. The case at Purandhar occurred (date not given) in the person of a convalescent soldier sent up from Kamptee for climatic debility; and the man, says the medical officer, probably contracted the disease on his way up.

Typhus, Dengue, Scarlatina, Rubella, Mumps, Erysipelas.

26. No cases of typhus were reported in 1897. There were only three cases of dengue, unless the medical officer at Lucknow, quoted in the foot-note to paragraph 11, was right in his surmise. Scarlatina gave 27 cases without a death, 15 at Chakrata and 6 at Muttra. The disease at Chakrata was said to have probably been imported from Meerut, but the origin of the case at Meerut was not traced. The same negative result attended inquiry at other stations, except that the patients at Umballa and Rawalpindi had just arrived from England. Sixteen cases of rubella were registered, 5 at Nasirabad, and 3 at Bangalore. There were only 10 cases of mumps, and not more than one case at any one station. Erysipelas caused 116 admissions and 7 deaths; 12 admissions each at Umballa and Quetta, 11 at Dalhousie, and smaller numbers at 35 other stations, among troops on the march, and in 3 of the field forces.

Tubercle of the lungs.

27. The admission and death-rates from tubercle of the lungs fell. As in 1896, Tables I and II, respectively, show that the Madras Command and the Deccan Group had high admission ratios. In the Deccan Group, Belgam was the station that had most admissions and the highest ratio. The medical officer considers the

climate of Belgam to have quite a curative influence in the disease, but he does not explain why there were so many admissions. In 32 cases treated (28 admitted) at that station there were no deaths, 27 were discharged to duty, one was invalided to England, and four remained in hospital. India returned under No. 334, Nomenclature of Diseases, 14 admissions and one death from non-tuberculous phthisis. If a case is really one of phthisis pulmonalis, the probabilities are that it is a parasitic affection, and that the parasite present is the tubercle bacillus. In the case of non-tuberculous phthisis that died, the *post-mortem* revealed tuberculous ulceration of the large intestine with enlargement of the mesenteric glands, and a cavity the size of a cricket-ball in the apex of the right lung.

Respiratory Diseases.

28. Respiratory diseases caused less sickness and mortality than in the preceding year :—

Period.	Respiratory Diseases.		Pneumonia.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95	30	·17	3	·60
1896	31	·77	5	·64
1897	26	·70	3	·60

Of the commands, the Punjab had, as usual, the highest death-rate. As to groups, if the Convalescent Depôts be excluded, the greatest prevalence was, as usual, in the Indus Valley. No explanation is given of the large amount of bronchial affections at Calcutta, Mandalay and some other stations ; at Ahmedabad and Bellary the cases were mild, and were ascribed to chills. Of the field forces, that of Tirah was the one which suffered most from respiratory disease, especially the non-pneumonic forms.

Possibly in connexion with the diminution of influenza, the admission and death-rates from pneumonia fell. Of the commands, the Punjab had the highest death-rate, as usual. The Indus Valley was, as usual, the group in which pneumonia was most prevalent ; but in 1897 the ratio of the Convalescent Depôts was as high as that of the Indus Valley, and that of Upper Sub-Himalayan came only third, instead of, as usual, second. Peshawar had the highest ratio in the Indus Valley, and the medical officer states that malaria played an important part in the causation of the disease. The six deaths at Peshawar was the maximum at any one station ; and medical officers do not appear to have felt called upon to dwell upon the causation in their reports. Table XII shows that the disease was more evenly distributed throughout the months of the year than in 1896, the maximum being suddenly reached in the two most malarious months, November and December, when cold weather was establishing itself, and when malaria in 1897 was prevalent. These facts are evidently connected with the peculiar weather of the year, which has already been described. Pneumonia was most prevalent in the Tirah Force, the field forces being looked at alone, next in the Malakand Force ; while there was no

mortality from it in the Tochi and Mohmund Forces, and no cases of it at all in the Kohat-Kurram Force.

In Table IV it is stated that the number of European soldiers constantly sick from pneumonia was nearly 18, against 35 in 1896, and the average duration of a case about 31 days, against 35.

Two Italian authors[21] have published an elaborate inquiry into the factors in the causation of pneumonia.

Dysentery and Diarrhœa.[22]

29. The admission and death-rates from dysentery and diarrhœa rose very much. This is presumably due partly to the abundant monsoon rainfall following on a drought, and partly to the exposure and hardship to which the portion of the army on field service was exposed:

Period.	Dysentery.		Diarrhœa.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95	30	·73	32	·06
1896	26	·67	20	·01
1897	46	2·53	33	·23

The reason why the India ratio exceeds that of any of the commands is that "India" includes the field forces. Dysentery was most prevalent in the Madras Command and in the Bengal-Orissa and Southern India groups. The same command and groups had the highest percentages of dysentery in total cases, as may be seen in Tables I and II. It is usual for Bengal-Orissa to have a high dysentery ratio. In Table XIII it may be seen that dysentery was most prevalent in the period August-November, inclusive, the maximum month being November, and the minimum January; in Table IV that of stations Secunderabad, Peshawar, and Rawalpindi had the most cases; and in Table III that of Barrackpore and St. Thomas' Mount had the highest ratios for stations, and the Tochi by far the highest ratio for field forces. The medical officer at Barrackpore points out that the disease there is not dependent on malaria, because the period in the year of the greatest prevalence of the two diseases was different; considers that it was not due to the water-supply, because the improvements in that have not been followed by a diminution in the disease; and admits the possibility of its connexion with a damp water-logged soil, with defective drainage. At St. Thomas' Mount the medical officer thought the conditions of exposure and diet in practice camp might have had something to do with the increase of dysentery.

The quinquennial admission ratios of 1891—95 were highest in (in order) Burma Coast, Bengal-Orissa, Burma Inland, and Southern India, and lowest in (in order) Western Coast, Indus Valley, Central India, and the Hills; or, taking sub-groups into consideration, highest in Groups I, IV, II, XI*a*, IX*b*, and XI*b*, and lowest in VIII*a*, VII, non-Himalayan part of XII*a*, X, VIII*b*, and VI*b*. Coastal sub-groups appear both among those in which dysentery

prevalence was great, and in those in which it was little. The above remarks are derived from the following table :—

Groups and Sub-groups.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio per 1,000
I.—Burma Coast and Bay Islands.		30	28	19	31	43	88	75	36	27	28	28	37	470	70·2
II.—Burma Island .		28	13	30	30	43	74	91	62	54	37	18	21	501	38·4
IV.—Bengal and Orissa		46	48	39	38	44	35	92	106	68	40	45	48	649	57·7
V.—Gangetic Plain and Chutia Nagpur.	B	79	31	61	87	66	41	75	165	98	119	150	121	1,093	30·2
VI.—Upper Sub-Himalayan.	A	65	56	44	69	71	48	50	54	65	87	111	110	830	26·2
	B	39	22	26	72	72	56	47	61	72	96	84	67	714	19·3
Group VI .		104	78	70	141	143	104	97	115	137	183	195	177	1,544	22·5
VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	A	18	3	8	12	24	17	10	15	25	30	34	15	211	13·6
	C	21	13	15	6	12	11	12	37	18	23	17	29	214	26·9
Group VII .		39	16	23	18	36	28	22	52	43	53	51	44	425	18·1
VIII.—S.-E. Rajputana, Central India, and Gujarat.	A	3	5	3	...	...	...	1	12	12	4	2	1	43	12·6
	B	27	24	20	48	35	27	60	112	86	47	47	30	563	19·3
Group VIII .		30	29	23	48	35	27	61	124	98	51	49	31	606	18·6
IX.—Deccan .	A	11	6	12	16	15	13	29	47	21	28	14	12	224	21·5
	B	69	74	70	57	54	65	184	210	165	121	68	69	1,206	31·5
Group IX .		80	80	82	73	69	78	213	257	186	149	82	81	1,430	29·4
X.—Western Coast .		15	14	6	7	7	5	15	20	6	19	10	10	134	18·0
XI.—Southern India	A	27	22	42	27	32	39	63	44	30	34	39	21	420	31·6
	B	11	7	10	8	3	7	12	14	14	23	15	25	149	30·4
Group XI .		38	29	52	35	35	46	75	58	44	57	54	46	569	31·3
XIIa.—Hill Stations.	Himalayan.	5	2	24	86	106	86	92	71	57	43	9	9	590	19·7
	Other	9	6	14	14	13	16	22	25	39	22	19	14	213	17·5
Group XIIa. .		14	8	38	100	119	102	114	96	96	65	28	23	803	19·1
XIIb.—Hill Convalescent Depôts, and Sanitaria.		9	9	24	66	72	62	56	56	41	40	14	10	459	26·5

Note.—There are no British Troops in Group III and Group Va.

The exact relation of the *amœba coli* to dysentery is still a matter of dispute and of doubt, which will probably only be cleared up when a successful method of cultivating the *amœba* has been discovered. Powell in Assam states that he has frequently demonstrated the *amœba coli* in dysenteric stools.

Hepatitis. (23)

30. While the admission rate from hepatitis fell somewhat, the death-rate from abscess of the liver rose:—

Period.	Hepatitis.*		Abscess of the Liver.	
	Admissions per 1,000.	Deaths per 1,000.	Admissions per 1,000.	Deaths per 1,000.
1886—95	21	1·29	2**	1·13**
1896	23	1·25	2	1·22
1897	20	1·32	2	1·29

* Including abscess of the liver.
** 1888-95.

The Bengal Command had the highest admission and death ratios from abscess of the liver, and the Madras Command the highest ratios from hepatitis. Of the groups Southern India recorded the highest admission rate from hepatitis, and Bengal-Orissa the highest from hepatic abscess. The percentage of hepatitis to total admissions was also highest in Southern India, and of hepatic abscess to total deaths in Bengal-Orissa. From a study of Table II it may be learned that, though Bengal-Orissa had the highest admission ratios from both dysentery and hepatic abscess, and though in ten cases out of the twelve a high admission rate from dysentery went with a high admission rate from abscess of the liver, and a low rate with a low rate, yet the order of the groups in hepatic abscess did not correspond exactly with the order of the groups for dysentery. If, instead of one year, the period 1891—95 be taken, Burma Coast and Bengal-Orissa head the list both for dysentery and for hepatic abscess; and in eight cases out of the twelve a high ratio from dysentery goes with a high ratio from abscess of the liver, and a low ratio with a low ratio. But it is evident that a greater number of years is required for the obtainment of definite results; and this will be borne in mind.

There were 88 deaths from abscess of the liver, and one man, who was being operated on for abscess of the liver, died from chloroform poisoning. For 8, out of the 89, *post mortem* records are not available. Of the remaining 81 deaths, 65 per cent. appear from the history and *post-mortem* records to have been associated with intestinal lesions, or 53 deaths; and 35 per cent., or 28 deaths, to have been not so associated. Among the 53 deaths associated with ulceration of the intestine there was a single abscess in 14, or 26 per cent., while there were multiple abscesses in 39, or 74 per cent. On the other hand, among the deaths unassociated with ulceration there were 12, or 43 per cent., in which the abscess was single, and 16, or 57 per cent., in which the abscesses were multiple. Again, out of the total 81 fatal cases 26, or 32 per cent., had a single abscess; 55, or 68 per cent., multiple abcesses. Of the cases of single abscess 14, or 54 per cent., were associated with ulceration, while 12, or 46 per

cent., showed no ulcerative intestinal lesion. In contrast to this, among the cases with multiple abscesses 39, or 71 per cent., were associated, 16, or 29 per cent., unassociated with ulceration. It was not possible in all the cases in which intestinal lesions, or their traces, were found, to assert that they were of dysenteric origin; and in two cases the original lesions were diagnosed to have been those of enteric fever. In these two cases the abscesses were multiple.

Table IV records 88 deaths in 167 cases treated, 20 remaining from the preceding year, and 147 admitted; a case-mortality of 52·7 per cent., against 51·5 in 1896. The same table shows that the average number constantly sick from hepatic abscess among 68,395 men was 18, and the average duration of a case about 46 days.

It has been stated above that two of the cases of liver abscess occurred as a sequence of the intestinal ulceration of enteric fever, the abscesses being multiple in both cases. In addition, abscesses of the liver complicated enteric fever in four cases which occurred, respectively, as noted in paragraph 16, at Sitapur, Sialkot, Belgam and Quetta. In the Sitapur case the typhoid ulceration affected the large as well as the small intestine, and besides a single abscess of the liver there was a suppurating infarct of the spleen; and in the Sialkot case the ulceration extended into the large intestine, and there was a small single abscess. The man affected at Belgam had a history of climatic dysentery of many weeks standing. The dysentery disappeared while the enteric fever lasted, and re-appeared during the convalescence. Acute hepatitis appeared on the 26th day with return of fever. Hepatic abscess was diagnosed on the 33rd day, and on the following day it burst into the bowel. The enteric symptoms were typical, the eruption well marked, and defervescence occurred on the 21st day. After the bursting of the hepatic abscess convalescence was rapid and uninterrupted. In the case which occurred at Quetta the small intestines showed the lesions of enteric fever, and there was an abscess in each lobe of the liver, that in the left lobe being smaller than the other. The above described results give the extraordinarily high proportion of 1 occurrence of abscess of the liver in 410 cases of enteric fever. This may be compared with the numbers given on page 51 of the report for 1896. In addition to those some other large statistics have been published, as well as papers on the connexion between the two diseases. Perhaps the large intestine is more frequently affected by enteric fever in India, perhaps the large-bowel lesions reported are sometimes those of dysentery co-existing with typhoid lesions higher up. Certainly, as has just been shown above, as well as in the report for 1896 (pages 27 and 91), dysentery may immediately precede enteric fever, or the two diseases may co-exist, or it may be difficult to diagnose between them; and illustrations of the same points are not wanting in the returns of 1897. Thus, in a case at Pachmarhi, the stools were first dysenteric, then typhoid; at Meerut a man was admitted on the 11th March for dysentery, and on the 4th April for enteric fever; in a case treated for enteric fever at Sialkot the diagnosis was changed to dysentery after death; at St. Thomas' Mount a man admitted for enteric fever had just had dysentery; at Bangalore a man in hospital convalescing from dysentery was attacked by enteric fever; at Mhow four cases of enteric fever were complicated with dysentery; lastly, a man admitted at Rangoon with acute dysentery with characteristic motions showed on the 6th day symptoms pointing towards enteric fever, the intestinal discharge ceasing, but the patient sinking and dying, and the *post-mortem* examination revealing "the characteristic ulceration of both diseases," the large intestine being a mass of ulceration

and general inflammation, while the lower portion of the small intestines presented typical enteric ulcers in all stages on the sites of Peyer's patches. What these cases suggest is that the greater commonness of liver abscess in cases of enteric fever in India may be due to the somewhat frequent association of enteric fever with dysentery in India; whether the dysentery be caused by usual dysentery-producing parasites, or by a virulent enteric bacillus acting on an exceptionally susceptible large intestine, or by a syndicate of microbes.

The discussion regarding the causation of hepatic abscess continues, with especial reference to the *rôle* of the *amœba coli*. Powell, in Assam, reports that in three cases he demonstrated the *amœba* in liver abscesses; and that in a case of dysentery he noted the *amœba* in the stools, and, later on, suppuration of the liver occurred, and the *amœba* was recognised in the pus by competent observers in England.

That hepatic abscess is on the increase among the civilised, rich, and leisured natives of India, and that it is rarer in the French tropical possessions than in the English, are statements for the criticism of which data are not at present available in this office.

The following table shows that the mortality from abscess of the liver in 1897 was 21½ times greater among European than among native soldiers, while it had been nearly 17 times greater in 1896, and 70½ times greater in 1895 :—

Cause of Death.	Died per 1,000 of average strength.		Relative liability in percentages.			Percentage in deaths from all causes.	
	European troops.	Native troops.	European troops.	Native troops.	Total 100.	European troops.	Native troops.
Abscess of liver .	1·29	·06	96	4	100	5·6	·5

On the other hand, the admission ratio from dysentery among European soldiers was to the ratio of the native soldiers as 1 : 1·5, the relation being the same as in the previous year. This matter was gone into at length in the report for 1894.

Particulars regarding the relation of mortality from hepatic abscess, and of invaliding from hepatitis, to age and length of residence in India, are given in Tables XVI and XVII, respectively. The liability to death appears to increase with age more than with service, so far as the figures for 1897 go; and the figures for 1896 and for 1895 gave the same result.

The actuals and ratios for hepatic abscess, and for hepatic congestion and inflammation, will be found in Tables IV and III.

31. Details regarding venereal disease will be found in Tables III and IV.

Venereal Disease.) The admission rate for India was 485·7, against 511·6 in the previous year and 522·3 in 1895. In other words, in 1897 for every 1,000 men there were nearly 26 fewer admissions to hospital for venereal disease than in 1896. The reduction appears to have been connected with the employment of a large number of men on field service in the second half of the year, as the number of venereal admissions was much lower from July to December than from January to June. In 1897 there were 2,991·59 (against 3,162·43) men constantly sick in hospital from venereal disease, equivalent to about three regiments. Excluding from the calcula-

tion men on field service, the average stay of a case of venereal disease in hospital (Table IV) was 33·32 days (against 32·10 in 1896, and 31·49 in 1895); and the total loss of service was about 1,091,930 days (against 1,157,449 in 1896, and 1,155,167 in 1895).

There were 23 deaths, 0·34 per mille of strength,* and 662 invalidings, 9·68 per mille, *directly* due to venereal disease, against, in 1896, 14, or 0·20 per mille, and 479, or 6·80 per mille.

The ratio of venereal disease to strength increased in 57 stations and decreased in 47. The highest ratios (over 900 per 1,000) were at Shahjahanpur, Chakrata, Saugor, and Ahmedabad. The greatest increases of ratio (increases of more than 150 per 1,000) were at Benares, Allahabad, Sitapur, Fatehgarh, and Chakrata in the Bengal Command; Attock, Solon, Ghora Dhaka, and Cherat in the Punjab Command; Cannanore (strength under 100), Ramandrug (strength under 100), Poonamallee, and "on the march" in the Madras Command; Kamptee in the Bombay Command.

A comparison of the commands shows that there was a decrease in Bombay only, a decrease greater than the increase of the other commands put together. The smallest increase was in the Punjab. As in the two years preceding, Bengal had the highest ratio, and the Punjab the lowest.

In 49 stations, against 46, the admission rate for secondary syphilis was over 100 per 1,000 of strength, the highest ratios being those of Poonamallee (as in 1896 and 1895), Taragarh (as in 1896: strength under 100), Chakrata, Ramandrug (strength under 100), and Belgam; and in 21 other stations, against 22, it was over 75 per 1,000.

For India the ratio of primary syphilis *plus* soft chancre diminished by 24·7, and the ratio of gonorrhœa by 5·3, while the ratio of secondary syphilis increased by 4·2; the net result being a decrease in total venereal disease, as already mentioned. While the secondary syphilis ratio of 1897 was greater than that of 1896 by 4·2, that of 1896 had been greater than that of 1895 by 12·8. In 1897 the Bengal Command had the highest ratio for primary syphilis *plus* soft chancre, and for gonorrhœa; the Madras Command, as usual, the highest ratio for secondary syphilis. In the Bengal Command the Rohilkhand District had the highest ratio for each form of venereal disease; while in the Madras Command the Belgam District had the highest ratios for syphilis and for secondary syphilis.

More or less explanation of the prevalence of venereal disease, or of its increase or decrease, is attempted by some medical officers. With regard to the result of placing bazar and city out of bounds, the medical officers of Meean Meer, Calicut, Belgam, Poona, Colaba, Kurrachee, and Hyderabad, speak favourably; those of Subathu, Campbellpur, and Kirkee, unfavourably; while with regard to Satara the result is not mentioned.

Some medical officers consider that venereal disease and ague vary inversely to each other, ague diminishing virility.

The influence of the famine in increasing the number of prostitutes is noticed.

At Deesa total abstainers were found to suffer more than others.

Sanitaria especially, but also other stations, returned cases which were really contracted before arrival.

* Including men on field service.

The medical officers of Lucknow and Kirkee considered it probable that the cases returned as non-venereal buboes were mostly of venereal origin, though proof was wanting. The remarks of the medical officer at Calcutta on non-venereal buboes are to the same effect as those quoted in paragraph 30 of the report for 1896.

The subject of intramuscular injections of mercury is noticed in many reports, as well as continued peroral treatment in barracks, as a means of obtaining more thorough cures without losing the services of the men; and the medical officer of Mhow points out the effect of this plan in reducing the number constantly sick in hospital, as well as the average duration of a case in hospital.

Table XV-B shows clearly how the arrival year by year, especially since 1878, of fresh batches of young unmarried men under the short service system has been accompanied by an increase of venereal disease.

In paragraph 39 are given particulars regarding invaliding for venereal disease in relation to age and length of service.

The following table shows the admission rate for venereal disease as far back as the records for India as a whole permit. The heading "primary syphilis" includes the local sore throughout :—

Years.	Primary Syphilis.	Secondary Syphilis.	Total Venereal Disease.
1872	61·2	22·4	179·0
1873	53·4	20·4	166·7
1874	68·3	25·2	192·7
1875	67·1	25·1	205·1
1876	59·8	23·9	189·9
1877	65·2	22·1	208·5
1878	95·3	22·0	271·3
1879	79·2	24·5	234·8
1880	87·9	23·1	249·7
1881	92·0	23·1	260·5
1882	87·6	23·2	265·2
1883	87·2	23·5	270·3
1884	90·2	24·4	293·9
1885	122·1	28·7	342·7*
1886	157·9	33·3	389·5*
1887	142·1	29·4	361·2*
1888	142·1	32·4	370·6
1889	225·1	51·2	481·5
1890	220·7	66·3	503·5
1891	159·2	60·0	400·7
1892	161·1	57·8	409·9
1893	213·6	61·6	466·0
1894	248·1	74·6	511·4
1895	239·0	84·9	522·3
1896	226·4	97·7	511·6
1897	201·7	101·9	485·7

* Including troops on active service in Burma.

The figures in the above table show a more or less continuous rise, especially since the end of 1884; and though there was a fall in the general ratios in 1896 and 1897, the rise in secondary syphilis continued uninterrupted, the ratio of 1897 being the highest on record.

Alcoholism.

32. Information with regard to the deaths from alcoholism in relation to age and service in India will be found in Table XVI; and the numbers admitted and constantly sick in

Table LIII. There were only 4 deaths in 1897, giving a ratio of 0·06 against 6 and 0·09 in 1896. The yearly average number of deaths in the decennium 1886-95 was 9 (0·14 per mille of strength), so that 1897 was much below the average.

Heat-stroke.(34)

33. In view of the interest at present aroused as to the real causation of heat-stroke, sunstroke, and heat apoplexy, the following table, showing the months and geographical groups of election, may be of interest. The warning as to months given on page 2 of the Annual Returns appended to this report must be borne in mind. In the period 1890-94 the Indus Valley had the greatest proportion of cases, and more cases occurred in the month of June than in any other month. It is a matter of common knowledge that heat, sufficient in degree and properly applied, can disintegrate the tissues and even cause death without the necessary intervention of any microbe. When it is found, therefore, that heat-stroke is commonest in the three hottest months, and in the three geographical groups where heat is fiercest, it seems not unlikely that heat, pure and simple, is the chief factor, other than those supplied by the patient, in producing the stroke.

Heat-stroke.

		I Burma Coast and Bay Islands.	II Burma Inland.	IV Bengal and Orissa.	V Gangetic Plain and Chutia Nagpur.	VI Upper Sub-Himalayan.	VII North-Western Frontier, Indus Valley, and North-Western Rajputana.	VIII South-East Rajputana, Central India, and Gujarat.	IX Deccan.	X Western Coast.	XI Southern India.	XIIa Hill Stations.	XIIb Hill Convalescent Depots, and Sanitaria.	TOTAL.
1890-94	January	...	...	...	...	1	...	...	1	...	...	...	...	2
	February	...	...	...	1	...	...	...	...	...	2	...	...	3
	March	...	...	2	1	...	...	1	2	1	2	2	1	12
	April	3	9	1	2	3	1	1	5	...	2	1	...	28
	May	7	21	4	18	14	9	11	23	2	9	1	1	120
	June	...	2	2	90	82	62	43	6	1	6	...	2	296
	July	...	2	...	31	110	57	19	...	...	...	2	1	222
	August	1	3	2	11	43	31	1	1	...	3	2	...	98
	September	...	2	1	8	9	7	3	...	...	1	1	3	35
	October	4	1	...	3	...	...	1	4	...	2	...	1	16
	November	1	...	...	...	1	...	...	1	...	...	...	1	4
	December	1	...	...	...	1	1	1	1	1	1	...	...	7
	TOTAL	17	40	12	165	264	168	81	44	5	28	9	10	...
	1897	1	3	9	33	69	34	55	17	2	3	1	...	...
RATIO PER 1,000 (1890-94)		2·4	3·0	1·1	4·6	3·9	7·2	2·5	·9	·7	1·6	·2	·6	...

Suicide.

34. In Table XVI will be found information with regard to suicide in relation to age and to Indian service. In the ten years 1896-95 there were 215, or an average of about 22 per annum. There were 18 in 1897, of which eight were by gunshot, four by drowning, three by cut-throat, and one each by stabbing, by jumping

from a height, and by lying on the rails in front of a train. The distribution of suicides by seasons per cent. was as follows:—

Period.	January to March.	April to June.	July to September.	October to December.	Total.	Total cases.
1886—95 . .	24	21	26	29	100	215
1896 . . .	18	36	23	23	100	22
1897 . . .	17	33	17	33	100	18

Influence of height above sea-level.

35. The following table gives for the same diseases as in Table I and for the three years 1895-97 admission ratios according to height of groups of stations above sea-level. All convalescent depôts and all stations the heights of which are not known, have been excluded from the table. A list of stations with their heights above sea-level will be found in Table D.

	Height above sea-level in feet.						
	a Below 100.	*b* 100 and below 500.	*c* 500 and below 1,500.	*d* 1,500 and below 3,500.	*e* 3,500 and below 5,000.	*f* 5,000 and below 8,000.	*g* 8,000 and below 13,000.
Influenza . .	18·3	12·2	6·6	4·7	·4	5·1	...
Cholera . .	·3	3·4	·7	1·0	...	...	...
Small-pox . .	·1	1·4	·9	1·1	...	·1	...
Enteric Fever .	10·4	26·9	30·3	24·3	107·3	33·7	15·0
Intermittent Fever .	388·9	234·7	389·8	268 7	189·7	188·0	165·4
Remittent Fever	19·0	18·8	15·0	10·1	38·5	7·1	7·5
Simple continued Fever . .	35·9	80·4	21·6	21·9	1·9	10·7	7·5
Rheumatic Fever .	·6	·6	1·2	1·2	6·6	3·4	...
Heat-stroke . .	3·1	6·2	5·9	1·7	1·9	·2	...
Circulatory Diseases	9·6	9·2	9·1	5·4	20·2	12·0	15·0
Tubercle of the Lungs . .	3 ·3	3·6	3·1	5·1	5·8	3·9	...
Pneumonia . .	1·6	2·5	5·7	4·4	1·6	5·0	11·3
Other Respiratory Diseases . .	20·5	21·3	29·1	28·6	11 3	27·3	22·6
Dysentery . .	41·9	32·5	26·3	28·6	18·7	18·9	3·8
Diarrhœa . .	21·1	21·8	22·8	19·2	29·9	26·7	3·8
Hepatic Abscess .	2·8	2·4	1·7	2·1	1 9	1·2	...
Hepatic congestion and inflammation	22·0	23·6	16·5	19·3	5·4	15·2	22·6
Venereal Diseases .	471·6	572·1	538·5	522·7	302·8	528·0	330·8
All causes . .	1,510·2	1,518·2	1,542·9	1,354·9	1,108·8	1,332·8	1,022·6

The table is only for three years and deals only with European soldiers, hence too much meaning must not be attached to the blanks in its columns. Ague, heat-stroke, dysentery, hepatitic affections, and "all causes" declined with height; tubercle and pneumonia increased with height. Though the sun which shines on the hills is the same powerful sun which shines on the plains, yet the sourrounding air is much cooler; and therefore heat-stroke is less common in the hills. Both dysentery and abscess of the liver decline with height, and both show the same rise in group "*d*", which circumstances may be taken as additional evidence of the connexion of abscess of the liver with dysentery.

The increase of pneumonia with elevation is due to the fall of temperature, especially when that lowered temperature acts on men somewhat suddenly transported to the hills from the hot plains in the early part of the season, or on men not fully realising the extent of the change of temperature to which they are subjected, or the necessity for care. The increase of tubercle of the lungs with elevation seems to depend partly on the small size of the rooms in the hills and the habit of keeping them shut up on account of the cold, and partly on the fact that so many young soldiers from home are sent to the hills at first, and and there have the opportunity to display symptoms of a tubercle acquired in England.

Invaliding.

36. In the whole army of India 2,258 men were invalided, or 33·01 per mille of strength, against 1,966 and 27·89 in the preceding year, the increase being partly due to the larger number of men invalided for secondary syphilis. The ratio for the decennium 1886—1895 was 24·34. The proportion of invalids to strength was lowest in the Punjab command, and highest in the Madras command.—See Table LIII.

	1893.	1894.	1895.	1896.	1897.
India .	39	39	33	39	34

Thirty-four per cent. of the total number invalided were discharged as unfit for further service. The marginal table shows that this percentage was somewhat, though not unprecedentedly, low. It should be mentioned, however, that the question in the case of each soldier as to whether the disability necessitates discharge is revised in England by a medical board; so that the Indian figures do not show the real final disposal of invalids.

Diseases causing invaliding.

37. Details regarding the causes of invaliding will be found in Table LIII; but the following shows the diseases which accounted for not less than 1 per mille of strength:—

	Invaliding ratios per 1,000 of strength.
Syphilis and Gonorrhœa	9·65
Debility	2·62
Malarial fevers	2·41
Tubercle of the lungs	1·94
Valvular disease of the heart	1·30
Dysentery	1·17
Rheumatism	1·11
Disordered action of the heart	1·10

Invaliding from mental affections.

38. The ratio of invaliding from mental diseases increased, and was above the decennial ratio. There were 50 cases of melancholia, 35 of dementia, 15 of mania, and 14 of other forms of insanity.—See Tables XVII and LIII:—

	Ratios per 1,000 of strength.
1886—95	1·19
1896	1·05
1897	1·39

Invaliding according to age and Indian service.

39. In Table XVII are to be found the statistics concerning the influence of age and length of Indian service upon invaliding.

The percentage of men who were invalided while under 25 years of age to the whole number invalided was (*f*) 63, against 62 in 1896. The percentage of men under 25 in the strength of the army was (Table XV) 55, against 56.

Of the total number of men invalided, 32 per cent. were (*l*) of less than two years' service, and 85 per cent were of less than five years' service. With this is to be considered the fact (Table XV) that 84 per cent. of all the men in the strength of the army were of less than five years' service.

The construction of Table XVII was sufficiently explained in paragraph 37 of the report for 1896. The left half gives the relation of invaliding to age, the right half its relation to length of residence in India. With regard to individual diseases, the table may be read as follows. The highest invaliding ratio per 1,000 of strength (*a*) from venereal disease was in the age-period 20—25, and the relative liability (*b*) for that period was 40 per cent.; the actual number invalided (*c*) for venereal disease in the same age-period was 426; of 100 invalided (*d*) in the same age-period 31 were due to venereal disease, a proportion the same as in the next age-period; and of the total invalided for venereal disease at all ages, (*f*) 64 per cent. were in that same age-period. By reading the right half of the table in the same way it will be seen that the residence-period 2—5 years, and especially the second-half of the period, had the largest proportion of invaliding for venereal disease, whereas in 1896 it was more particularly the first-half of the period 1—3 years which was so distinguished.

Officers.

40. The vital statistics of officers will be found in Table XVIII. "B" shows the deaths of *all* officers. The death-rate for the British army was 23·04, and that for the Indian army 18·92, both higher than in the preceding year, because of the fighting that had to be done in 1897. The number of deaths from enteric fever was greater than in 1896 among both British and Indian officers. Enteric fever caused, as usual, more deaths among the British than among the Indian officers, apparently because Indian officers have to serve first with British regiments, and it is known that youthful and newly-arrived men are more liable to take the disease than others.

"A", "C", "D", and "E" ("E" appearing for the first time in 1897) show the statistics of such British officers present with their regiments in India as were treated by medical officers in charge of station hospitals. The invaliding and death-rates were higher than for men, the admission-rates lower. The admission-rates from ague and venereal disease, and the death-rates from enteric fever and hepatic abscess, were lower than among men. The chief causes of admission among officers were ague, simple continued fever, and remittent fever; and among the diseases with raised admission-rates were enteric fever, ague, remittent fever, simple continued fever, dysentery, and diarrhœa, the ratios from influenza, small-pox, and respiratory diseases being lessened. Enteric fever and cholera were the chief causes of death; the ratios from heat-stroke, dysentery, and remittent fever being raised, and those from pneumonia, circulatory diseases, hepatic abscess, and cholera lowered.

There was not more than one case of cholera at any one station. There were 19 cases of enteric fever in the field forces, 11 in the Tirah force. The greatest numbers of cases of enteric fever were five at Lucknow and at Quetta and four at Agra. "The five admissions at Quetta occurred among the single officers of the 2nd Battalion, Lancashire Fusiliers. The cause was most

probably the very insanitary condition of the mess kitchen. All the cases occurred within a very short time of one another."

Women.

41. On the whole the health of the women was better than in 1896, the chief feature of the following figures for 1897 being the decided fall in the death-rate :—

Period.	Average annual strength.	Admission-rate per 1,000.	Constantly sick-rate per 1,000.	Death-rate per 1,000.
1886—95	31,881	815·2	32·1	17·00
1896	3,254	807·0	37·4	18·44
1897	3,203	768·3	38·2	15·30

The chief causes of admission were debility, ague, and the diseases peculiar to women. Among the diseases which caused increased admission were cholera, ague, tubercle of the lungs, and dysentery; while from influenza, small-pox, respiratory diseases, and enteric fever, admission was lessened. Debility caused nearly 35 per cent. of the total sickness, and ague over 21 per cent.

The chief causes of death were puerperal affections and tubercle of the lungs. Among the diseases which gave increased mortality were cholera, dysentery, pneumonia, remittent fever, and puerperal affections. Mortality from enteric fever, respiratory diseases other than pneumonia, diarrhœa, hepatic abscess, and small-pox, was diminished. Puerperal diseases caused 10 per cent. of the total deaths, and tubercle of the lungs 8 per cent.

As to both ratios and actuals the commands may be compared with each other by the use of Table XIX.

Table XX shows that there were only two cases of cholera among the women; and Table XXI that the only stations where more than two cases of enteric fever occurred were Cherat and Dagshai. No special explanation of these cases is given by the medical officers; but their remarks on enteric fever in those stations will be found quoted in paragraph 16, and, in the case of Cherat only, in Table V.

Children.

42. That the health of the children was worse than in 1896 may be seen in the following table :—

Period.	Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death-rate per 1,000.
1886—95	59,695	581·8	22·7	46·72
1896	5,790	573·6	24·9	45·60
1897	5,744	572·1	26·7	50·49

The chief causes of admission were ague and respiratory diseases. Among the diseases with raised admission-rates were influenza, cholera, remittent fever, eye diseases, ague, and bowel complaints; while admission from small-pox, whooping cough, and measles was lessened. Ague caused nearly 19 per cent. of the total sickness, and respiratory diseases nearly 12 per cent.

The chief causes of death were teething, diarrhœa, debility (including immaturity at birth), respiratory diseases, and convulsions. Among the diseases from which there was increased mortality were cholera, tubercle, ague, respiratory diseases, teething, debility, and bowel complaints. Mortality from small-pox, diphtheria and croup, enteric fever, convulsions, and remittent fever,

was diminished. Teething and diarrhœa caused each over 15 per cent. of the total deaths, debility 13 per cent., and respiratory diseases 10 per cent.

Table XXIII shows that most cholera occurred at Kirkee and Lucknow. No explanation of the origin of these cases is given. Kirkee and Agra, Table XXIV shows, had the greatest numbers of enteric fever cases. No explanation is offered of the origin of these cases; but an extract from the reports of the medical officers of Agra will be found in paragraph 16. At Rawalpindi there were four cases of abdominal tubercle, which, of course, rouses suspicion as to the milk; but no remarks are offered by the medical officer.

Table XXV shows that the liability to death was greatest under six months of age, the height of the percentage being to a considerable degree due to cases of immaturity at birth. The chief causes of death at that age were debility, diarrhœa, convulsions, and respiratory diseases. The chief causes of mortality in the succeeding year of life were teething and diarrhœa.

Papers and Book referred to in Section II.

Abbreviations used below.

L.=Lancet.
B. M. A.=British Medical Association.
B. M. J.=British Medical Journal.
E. M. J=Edinburgh Medical Journal.
M. C.=Medical Chronicle.
N.=Nature.
I. M. G.=Indian Medical Gazette.
I. L.=Indian Lancet.
B. J.=Boston Journal.
J. H. H. B.=Johns Hopkins Hospital Bulletin.
M. O. L. G. B =Report of Medical Officer, Local Government Board.
A. M. D.=Army Medical Department Report.
V. J.=Virchow's Jahresbericht.
Z. H.=Zeitschrift für Hygiene.
Z. F. H.=Zeitschrift für Heilkunde.
A. H.=Archiv für Hygiene.
C. B.=Centralblatt für Bakteriologie.
H. R.=Hygienische Rundschau.
F. M.=Fortschritte der Medicin.
D. M. W.=Deutsche Medicinische Wochenschrift.
B. K. W.=Berliner Klinische Wochenschrift.
W. M. W.=Wiener Medicinische Wochenschrift.
M. M. W.=Münchener Medicinische Wochenschrift.
C. K. M.=Centralblatt für Klinische Medicin.
C. I. M.=Centralblatt für Innere Medicin.
A. P.=Annales de l' Institut Pasteur.
R. S. M.=Revue des Sciences Médicales.
S. M.=La Semaine Médicale.
M. M.=La Médicine Moderne.
G. H.=Gazette Hebdomadaire.

(1) Kretz, in L. of 22nd January 1898, page 221; Aldridge, in L. of 21st May 1898, page 1394; L. of 18th June 1898, page 1599; I. M. G. of December 1897, page 466; I. L. of 1st July 1898, page 17.

(2) Broadbent in L. of 30th July 1898, page 254, commenting on a case published by Snell on page 252; Discussion in L. of 6th August 1898, page 376; Fayrer, I. L. of 1st October 1898, page 280; Crombie and others, discussion in B. M. J. of 24th September 1898, page 862; Melville and McNaught in I. M. G. of April 1898, page 127.

(3) *Soil*:—Sir Richard Thorne, in L. of 6th November 1897, page 1167; L. of 4th December 1897, page 1464; Review of M. O. L. G. B. for 1896-97 in L. of 8th January 1898, page 117; Discussion in L. of 15th January 1898, page 160; Review of M. O. L. G. B. for 1896-97 in L. of 22nd January 1898, page 246; Childs, in L. of 29th January 1898, page 300; Brownlee in L. of 16th April 1898, page 1082; Robertson in L. of 23rd April 1898; Discussion in B.

M. J. of 27th November 1897, page 1574, also Leader, page 1601; Discussion continued in B. M. J. of 18th December 1897, page 1793; Review of M. O. L. G. B. in B. M. J. of 1st January 1898, page 30; Robertson, in B. M. J. of 8th January 1898, page 69; Discussion in B. M. J. of 15th January 1898, page 146; Leader in B. M. J. of 22nd January 1898, page 229; Childs, in B. M. J. of 29th January 1898, page 303, and also Leader on the same; Discussion on a paper by Childs in B. M. J. of 19th March 1898, page 761; Robertson, in B. M. J. of 13th August 1898, page 421; Leader in L. of 18th June 1898, page 1702; L. of 23rd July 1898, page 217; Robertson summarised in L. of 13th August 1898, page 444; Discussion on a lecture by Childs, I. L. of 16th July 1898, page 63; Boobbyer in B. M. J. of 8th October 1898, page 1092; Caley, in B. M. J. of 8th October 1898, page 1071; A. M. D. for 1895, page 288; Childs, in L. of 5th February 1898, page 348; Leader on lecture by Childs in L. of 5th February 1898, page 377; Hauser, quoted in L. of 12th March 1898, page 727.

Dust:—Kelsch and Simmonnin, quoted in B. M. J. of 16th October 1897, page 1114; Discussion in B. M. J. of 15th January 1898, page 146, Leader, page 164; Brownlee, B. M. J. of 23rd April 1898, page 1095; Battersby, quoting Vaillard and others in I. L. of 1st October 1898, page 281; Germano, Z. H. XXIV, page 403, XXV, page 439, XXVI, pages 66 and 273; Flügge, Z. H. XXV, page 179; Germano and Flügge, both quoted in F. M. 16, page 234; Neisser in Z. H. XXVII, page 175, Neisser, Habilitationsschrift, Leipzig, 1898, quoted in C. B. XXIV, page 704; Flügge, as above, quoted in H. R. VIII, page 75;

Enteric bacillus in nature:—Ferrière, Sanglé, and Remlinger, Revue d' Hyg. et de Police Sanit. 20, No. 2, quoted in H. R. VIII, page 880; Richardson, Boston Med. and Surg. Journal, quoted in I. L. of 1st February 1893, page 137; Childs, quoted in I. L. of 16th July 1898, page 63; L. of 9th July 1898, page 96; Maitland in B. M. J. of 23rd October 1897, page 1214.

Hardiness of the bacillus:—Delépine, L. of 26th February 1898, page 589; Discussion on a lecture by Childs reported in I. L. of 16th July 1898, page 63; Germano, as quoted under "Dust;" Fischer, Vorlesungen über Bacterien, page 74; N. 56, page 619, quoting Mason in Journal of the Franklin Institute, and B. M. J. of 13th November 1897, page 1453; Bodin, in A. P. XII, page 458.

English Counties:—Review of M. O. L. G. B. in L. of 8th January 1898, page 117; Robertson, in B. M. J. of 13th August 1898, page 421; Caley, in B. M. J. of 8th October 1898, page 1071; Parsons, B. M. J. of 26th November 1898, page 1621, and L. of 26th November 1898, page 1400.

Virgin Soil:—Paget, in L. of 13th August 1898, page 409; Climo, in B M. J. of 13th November 1897, page 1462.

(4) Ferrière, Sargle, and Remlinger, quoted in H. R. VIII, page 880, as above; Maitland, in B. M. J. of 23rd October 1897, as above.

(5) Remlinger, in A. P. XI, page 829, and B. M. J. of 12th March

1898, epitome-page 44, and F. M. 15, page 742 and N. 57, page 179; Chantemesse and Ramond, Soc. de Biol No. 26, 1897, quoted in F. M. 15, and from S. M. 1897, page 274 in H. R. VII, page 1103, and in N. 57, page 179.

(6) Osler, Principles and Practice of Medicine, 3rd Edition, reviewed in L. of 12th November 1898, page 1272; Sidney Martin in B. M. J. of 9th July 1898, page 73.

(7) Block, in J. H. H. B., 1897, No. 75, June; Takaki and Werner, in Z. H. XXVII, page 31.

(8) Osler, see above under (6); Chiari and Kraus, Z. F. H. XVIII, quoted in C. B. XXIII, page 705, and in F. M. 16, page 513; Hodenpyl B. M. J. of 25th December 1897, page 1850; Flexner and Harris, in J. H. H. B., No. 81, December 1897, quoted in C. B. XXIII, page 755; Guinon and Mennier, Revue mens. des Mal. de l' enf. XV, page 181, quoted in F. M. 16, page 471; Cheadle, in L. of July 1897, quoted in V. J. XXXII, 2-1, page 11; Goodall, Clinical Trans. Vol. 13, quoted in V. J. XXXII, 2-1, page 12; Beatty, Dublin Journal, February 1897, quoted in V. J. XXXII, 2-1, page 16; Durham, in L. of 15th January 1898, page 154; Leader in B. M. J. of 17th December 1898, page 1829, and Lecture by Durham on page 1797.

(9) L. of 9th July 1898, page 96; Discussion in B. M. J. of 18th December 1897, page 1793 (Kanthack); I. M. G. of October 1898, page 390; Carter, J. H. H. B., June 1897, quoted in V. J. XXXII, 2-1, page 13; Dauriac, G. H. No. 59, quoted in V. J. XXXII, 2-1, page 14; Mason, B. J. No. 19, quoted in V. J. XXXII, 2-1, page 14; Chiari and Kraus, See under (8); Osler, in E. M. J. quoted in F. M. 16, page 691.

(10) Discussion and Leader in B. M. J. of 15th January 1898, pages 146 and 164; Discussion in B. M. J. of 18th December 1897; page 1793; L. of 9th July 1898, page 96; Durham in L. of 15th January 1898, page 154; Houston in B. M. J. of 14th January 1899, page 78, quoting Flexner, J. of Path. and Bact. III, page 202.

(11) Sterling, C. B. XXII, page 334; Jemma, M. M. W. 17th August 1897, quoted in B. M. J. of 18th December 1897, epitome-page 97; Richardson, B. M. J. of 25th December 1897, page 1842; Breuer, in B. K. W. 1896, No. 47, page 1038, quoted in H. R. VII, page 955; Carver, M. C. quoted in B. M. J. of 20th August 1898, page 497; Kuhnau, B. K. W. of 1897, No. 19; * * * * * * * Hiss, quoted in L. of 13th November 1897, page 1291; and in N. 57, page 527; Thoinot and G. Brouardel, quoted in L. of 2nd April 1898, page 966; Thoinot, in S. M. 1898, page 126, quoted in H. R. VIII, page 589; Markus, in C. B, XXIV, page 384; Kashida, in C. B. 1897, Nos. 20 and 21, quoted in B. M. J. of 29th January 1898, epitome-page 20; Delépine, B. M. J. of 19th March 1898, page 780; Cesaris-Demel, in Giorn. d. R. Acc. di M. di Torino, 1898, No. 3, quoted in H. R. VIII, page 825; Roger, S. M. 1898, page 317, quoted in H. R. VIII, page 1024; Fodor and Rigler, C. B. XXIII, page 930; Fischer, Vorlesungen über Bakterien, page 84; V. J. XXXII, 1-2, page 160, quoting a a number of authors; Kashida, C. B. XXI, quoted in H. R. VIII,

page 735; * * * * Notter in A. M. D. for 1895, page 286; Van de Velde, C. B. XXIII, page 547; Lorrain Smith in B. M. J. of 10th December 1898, page 1782; * * * * Kister, C. B. XXII, page 497; * * * * * Durham, in L. of 15th January 1898, page 154; Sidney Martin, in B. M. J. of 9th July 1898, page 73; Hiss, quoted by Park in B. M. J. of 18th December 1897, page 1778.

(12) Snell, page 252, and Broadbent, page 254, of B. M. J. of 30th July 1898; Mansell-Moullin in L. of 18th December 1897, page 1575, and in L. of 25th December 1897, pages 1644 and 1645; Melchior in C. B. XXII, page 554, quoted in B. M. J. of 11th December 1897 (by Knowling), page 1762, and in B. M. J. of 18th December 1897, epitome-page 100; Alessandri in C. B. XXIII, page 685; Mansell-Moullin in L. of 10th September 1898, page 681; Rovsing in B. M. J. of 10th September 1898, page 724; Lyonnet in M. M., No. 26 of 1897, quoted in F. M. 16, page 347; M. O. L. G. B. for 1895-96, quoted in N. 57, page 132; Uhlenhuth in Z H. XXVI, page 476, giving references to cases; Birch-Hirschfeld in H. R. VII, page 1125; Discussion in B. M. J. of 18th December 1897 (Sims Woodhead) page 1793; Sidney Martin in B. M. J. of 9th July 1898, page 73; Pick, quoted in B. M. J. of 19th March 1898, epitome-page 45; B. M. J. of 25th June 1898, page 1657; Discussion in L. of 6th August 1898, page 356; Martin in B. M. J. of 20th August 1898, page 470; Renon, quoted in V. J. XXXII. 2.-1, page 7.

(13) Discussion in B. M. J. of 15th January 1898, (Corfield) page 146; Parsons in L. of 11th June 1898, page 1620, and in B. M. J. of 11th June 1898, page 1521; Skinner in L. of 30th October 1897, page 1143.

(14) Burgess, paper read before the Royal Society, quoted in N. 52, page 38, and from the Medical Press in I. L. of 1st December 1897, page 552; Baumgarten's Jahresbericht for the years 1886, 1887, 1888, 1892; I. M. G. of November 1898, page 421 (a review of some of the past work); Macrae in I. M. G. for November 1894, page 407; Discussion and Leader in B. M. J. of 15th January 1898, (Jameson) page 146; Quill, in B. M. J. of 5th February 1898, page 406; Battersby, in B. M. J. of 12th February 1898, page 476; Discussion in B. M. J. of 18th December 1897, page 1793 (Jameson); Joly, Thèse de Bordeaux 1897, quoted in B. M J. of 16th July 1898, epitome-page 12; Nuttall, in C. B. XXII, page 67, and XXIII, page 625; American letter in L. of 5th November 1898, page 1235, Account of American Commission in I. L. of 1st December 1898, page 474; Account by Giglioli in N. 56, page 575, of the work of Amedeo Berlese.

(15 Petruschky in C. B. XXIII, page 577, and quoted in B. M. J. of 25th June 1898, page 1673 and epitome-page 104; Knowling, in B. M. J. of 11th December 1897, page 1762; Discussion in B. M. J. of 18th December 1897, page 1793, (Kanthack); Melchior, in C. B. XXII, page 554; Poniklo, in C. B. XXIII, page 852; Carver, in M. C., quoted in L. of 20th August 1898, page 497; Richardson,

in Journal of Experimental Medicine III. 3, 1898, quoted in L. of 26th November 1898, page 1410, and in H. R. VIII, page 1141 ; Cheadle, in L. of July 1897, quoted in V. J. XXXII, 2-1, page 11 ; Urban, in W. M. W. No. 31, quoted in V. J. XXXII, 2-1, page 23 ; Makower, Inaug. Diss., Würzburg, 1897, quoted in H. R. VIII, page 4 5.

(16) Sedgwick, reported in Chemische Zeitung, XXI, page 398, and quoted in H. R. VIII, page 426 ; Discussion in a paper by Childs (Notter) in B. M. J. of 19th March 1898, page 761 ; Duclaux, quoted in N. 57, page 167 ; Leader in L. of 8th January 1898, page 110 ; B. M. J. of 11th December 1897, page 1742 ; L. of 9th October 1897, page 930 ; Childs in L. of 12th March 1898, page 742 ; Review of Abbott's Bacteriology in L. of 26th March 1898, page 827 ; Evans, in Report of Sanitary Commissioner of Bengal for 1895, pages CCXV, etc. ; Leader and Discussion in B. M. J. of 15th January 1898, pages 164 and 146 (Boyce) ; Boyce and Hill in L. of 19th March 1898, page 793; * * * * Vaughan, quoted in H. R. VII, page 1029 ; Frankland, quoted in L. of 23rd October 1897, page 1055 ; B. M. J. of 6th November 1897, reviewing Washbourn's bacteriological report on the Maidstone epidemic ; McWeeney in B. M. J. of 3rd September 1898, on a paper by Christophers, page 599 ; * * * * * * * Sims Woodhead and Cartwright Wood in B. M. J. of 22nd January 1898, pages 261 and 283 ; Lunt, from British Institute of Preventive Medicine, quoted in C. B. XXIII, page 795 ; I. L. of 16th September 1898, page 236 ; Indian Engineering of 18th June 1898, page 388 ; * * * * * Delépine, Journal of State Medicine VI, No. 7, July 1898, quoted in L. of 30th July 1898, page 266 ; B. M. J. of 12th March 1898, page 708 ; B. M. J of 18th June 1898, page 1667 ; Cassel, quoted in B. M. J. of 23rd October 1897, page 1203 ; L. of 9th July 1898, page 97 ; Hueppe, quoted in H. R. VII, page 1028 ; * * * * * Petruschky, in C. B. XXIII, page 577 ; 28th Annual Report of the State Board of Health of Massachusetts, quoted in B. M. J. of 21st May 1898, page 1338 ; Hill in B. M. J. of 13th August 1898, page 435 ; * * * * * * * Hankin in I. M. G. of November 1897 page 420 ; Discussion and Leader in B. M. J. of 15th January 1898 (Poore), pages 164 and 146 ; N. 58, page 374.

(17) Cautley in M. O. L. G. B. for 1896-97, quoted in L. of 22nd January 1898, page 246, and in B. M. J. of 1st January 1898, page 30 ; Frænkel and Kister, M. M. W. of 15th February 1898, quoted in B. M. J. of 5th March 1898, epitome-page, 40 ; and in H. R. VIII, page 1142 ; Wilckens, in Z. H. XXVII, page 264 ; Delépine in L. of 20th November 1897, page 1325, and in B. M. J. of 22nd January 1898, page 203 ; Willoughby, in B. M. J. of 22nd February 1898 page 565.

(18) L. of 23rd October 1897 page 1056 ; Brownlee in L. of 9th April 1898, page 1082 ; Review of book by Roechling in L. of 30th April 1898, page 1198 ; " T. C " in L. of 23rd April 1898, page 1164 ; B. M. J. of 6th November 1897, page 1362 ; Shattock in B. M. J. of 11th December 1897, page 1721 ; Discussion in B. M.

J. of 15th January 1898, page 146 (Corfield); Carter, in B. M. J. of 8th January 1898, page 91; Walford, in Sanitary Record of 30th July 1897, page 119; quoted in I. L. of 16th February 1898; N. 57, page 254; G. C. Frankland on Roechling in N. 57, page 387.

(19) I. L. of 16th July 1898, Account of lecture by Childs, page 63; Discussion in B. M. J. of 27th November 1897, page 1574 (Davies); L. of 16th October 1897, page 998; Discussion in L. of 15th January 1898, page 160 (Poore); Armstrong, in B. M. J. of 13th November 1897, page 1440; B. M. J. of 20th November 1897, page 1530; Discussion in B. M. J. of 27th November 1897, page 1574 (Poore) (Thorne); B. M. J. of 11th June 1898, page 1542; Allan and Cribb, in B. M. J. of 13th August 1898, page 625; Bose, in A. P., X, quoted in H. R. VII, page 524; Discussion in B. M. J. of 18th December 1897, page 1793 (Payne) (Sims Woodhead); Duckworth, in B. M. J. of 22nd October 1898, page 1214; B. M. J. of 19th November 1898, pages 1576 and 1590; Epstein, in Z. H. XXIV, quoted in V. J. XXXII. 1-2, page 444; Pfuhl in H. R. VIII, page 1130; Hill and Abram in B. M. J. of 16th April 1898, page 1013; Notter quoted in I. L. of 16th April 1898; Schomburg in D. M. W., Nos. 1 and 25 of 1897, quoted in F. M. 15 and C. B. XXII, page 394; Gemünd, in M. M. W., No. 50 of 1897, quoted in C. B. XXIII, page 908.

(20) Smith, in L. of 16th October 1897, page 974.

(21) Fermi and Montesano, in C. B. XXIII, pages 1, 59, and 117, and quoted in B. M. J. of 1st October 1898, epitome page 53.

(22) Lockwood, in Medical Record of 3rd April 1897, quoted in C. B. XXII, page 707; Hamilton West quoted in B. M. J. of 22nd January 1898, page 220; Ciechanowski and Nowak, in C. B. XXIII, pages 445 and 493; Shiga, in C. B. XXIII, page 599; Borntræger, Z. H. XXVII, page 375; Buchanan, in L. of 2nd July 1898, page 52; Rœmer in M. M. W., No. 2 of 1898, quoted in C. B. XXIII, page 1065, and in B. M. J. of 24th September 1898, epitome-page 52, and in F. M. 16, page 694, and in H. R. VIII, page 947; Hillier, in B. M. J. of 24th September 1898, page 886; Behla in H. R. VIII, page 876; Powell, in I. M. G. of December 1898, page 441; Review of a book by Petridis in L. of 26th November 1898, page 1408.

(23) Review of Vol. IV of Clifford Allbutt's System of Medicine in B. M. J. of 13th November 1897, page 1430; Howard and Hoover, quoted in I. M. G. of November 1897, page 430; Windsor, in L. of 4th December 1897, page 1448, and in L. of 11th December 1897, page 1525, and quoted in I. L. of 16th January 1898, page 68; L. of 5th March 1898, page 622; Harris, American Journal of the Medical Sciences, April 1898, quoted in B. M. J. of 14th May, epitome-page 77; Buchanan in I. M. G. of May 1898, page 165; * * * * * * L. of 4th December 1897, page 1446; Korn, in C. B. XXI, quoted in F. M. 16, page 493; Leick, D. M. W., No. 20 of 1898, page 313, quoted in C. B. XXIII, page 990; * * * * * * Arnold, in L. of 30th July 1898, page 262; Hatch, in I. M. G. of August 1898, page

285 ; Josserand, in Journal de Médicine of 25th July 1898, quoted in B. M. J. of 24th September 1898, epitome-page 49 ; * * * * * * L. of 25th December 1897, page 1673 ; I. M. G. of October 1898, page 390 ; L. of 27th November 1897, page 1395, quoting Osler in E. M. J ; Swain, in B. M. J. of 16th July 1898, page 149 ; Osler in E. M. J. quoted in F. M. 16, page 691 ; L. of 5th March 1898, page 622 ; * * * * * * Hatch in I. M. G. of August 1898, page. 285 ; Windsor, in L. of 4th December 1897, page 1448 ; Buchanan, in B. M. J. of 24th September 1898, page 892 ; Powell, in I. M. G. of December 1898, page 441 ; Review of a book by Petridis in L. of 26th November 1898, page 1408.

(24) Sambon, in B. M. J. of 9th March 1898, page 744, and Leader on page 775 ; B. M. J. of 2nd April 1898, page 920.

SECTION III.
NATIVE ARMY OF INDIA.

43. Though influenza a nd cholera were less prevalent, yet, owing to the arrival of an abundant monsoon after a prolonged period of drought, there was an increase of malaria, and therefore of sickness and mortality, in 1897 as compared with 1896. The sickness and mortality were also raised by the employment of a large body of men on active service :—

India.

Year.	Average strength.	RATIO PER 1,000.							
		Admissions into hospital.	Constantly sick.	Deaths from					Mortality, including absent deaths.
				Cholera.	Remittent fever.	Pneumonia.	Dysentery.	All causes.	
1886—95 .	123,302	976	34	1·32	1·34	3·02	·78	12·43	16·72
1896 . .	128,286	763	29	·69	1·07	3·14	·42	10·20	12·57
1897 . .	129,802	839	31	·52	1·04	2·73	·67	13·12	14·90

The chief causes of admission were ague and dysentery. Among the diseases with raised admission rates were enteric fever, dysentery, and ague. Among those with lessened rates were influenza, small-pox, scurvy, cholera, and respiratory diseases. Ague caused 41 per cent. of the total admissions.

The chief causes of death were pneumonia and remittent fever. Among the diseases which caused increased mortality were enteric fever, ague, and bowel complaints. Among those from which mortality was lessened were small-pox, cholera, remittent fever, respiratory diseases, and debility. Pneumonia caused 21 per cent. of the total deaths, and remittent fever 8 per cent.

The total number invalided for discharge (Table XXXIX) was 1,649, and the chief causes of invaliding were debility, respiratory diseases, malarial fevers and venereal diseases.

If Table XXVI be compared with Table I it will be seen that the native soldier suffered less from cholera, enteric fever, ague, remittent fever, simple continued fever, tubercle of the lungs, diarrhœa, hepatitic affections, and venereal diseases; equally from small-pox; and more from influenza, respiratory diseases, dysentery, and scurvy, than his European comrade. These relations are usual, except with regard to cholera, ague, remittent fever, and small-pox. The comparison may be carried into further detail with the aid of Table LIII. See also section IV, paragraph 106.

44. Of the commands the Punjab (Table XXVI) was the most unhealthy, and it was slightly more unhealthy than in the previous year. Its death ratios from enteric fever, diarrhœa, tubercle of the lungs, and dysentery, were raised, while those from small-pox, respiratory diseases, and cholera, were lowered. Bengal had the

Commands.

highest constantly sick rate, the Punjab the highest admission and death-rates. The highest ratios of mortality from small-pox, ague, and tubercle of the lungs were in Bengal; the highest from enteric fever, remittent fever, pneumonia, and other respiratory diseases in the Punjab; the highest from cholera in Madras; and the highest from dysentery and diarrhœa in Bombay.

The heading "Central India and Rajputana Corps" no longer appears in Table XXVI, those corps having been distributed between, and absorbed into, the Bengal and Bombay commands. A comparison of Table H with the corresponding table of 1896 will show how the stations of Central India and Rajputana have been divided between the two commands.

Burma.

45. The following table shows the statistics of all the native troops serving in Burma and the Andamans. Of these troops in 1897, about 98 per cent. belonged to the Madras army :—

Years.	Average annual strength present.	RATIO PER 1,000.						
		Admissions into hospital.	Constantly sick.	Deaths from.				
				Cholera.	Remittent fever.	Pneumonia.	Dysentery.	All causes.
1891	11,401	1,676	76	1·75	2·98	1·84	4·03	36·31
1892	11,333	1,349	57	2·29	2·29	2·29	3·09	29·12
1893	10,326	1,092	48	·87	1·45	2·42	1·36	19·85
1894	10,500	809	35	1·43	·95	1·14	1·43	13·90
1895	9,952	827	37	·80	·50	·80	·80	10·55
1896	9,605	830	38	...	·94	·73	1·35	9·58
1897	8,661	802	35	·46	·46	·92	·23	6·58

The table shows that the death-rate has been reduced year by year. Sickness was lower than in 1896. A comparison of the health of the troops in the Burma Coast group of stations with that of the troops in the Burma Inland group may be made by the use of Table XXVII.

Trans-Frontier Stations.

46. The following statistics are those of the regiments stationed beyond the North-West Frontier and in Baluchistan. The garrisons of Gilgit, Chitral, and the Malakand are not included :—

Year.	Average annual strength present.	RATIO PER 1,000.						
		Admissions into hospital.	Constantly sick.	Deaths from				
				Cholera.	Remittent fever.	Pneumonia.	Dysentery.	All causes.
1897	9,188	1,182	34	...	·76	3·92	·65	15·35

If this table be compared with that for India in paragraph 43, it will be seen that the statistics of the trans-frontier troops were considerably less favourable than those of India as a whole, a high death-rate from pneumonia being a salient feature.

Gilgit, Chitral, Malakand.

47. The statistics of the garrisons of Gilgit, Chitral, and the Malakand are to be found in Tables XXVIII and XXIX. Of the three, Chitral was the most unhealthy, and the Malakand the least so.

48. Of the forces which took the field in 1897 the statistics will be found in Tables XXVIII, XXIX, and LIII. Wounds and violent deaths were most frequent in the Tirah force, which was constantly on the move and fighting; but in the Tochi force, whose chief duty was to wait in an unhealthy valley, disease was most prevalent.

Field Forces.

49. The table which follows shows that both for the decennium and in 1897, Groups II, III, and IV had high constantly sick ratios; and that both for the decennium and in 1897 mortality from respiratory diseases was greatest in the Indus Valley. Cholera mortality was below the decennial figure in all the groups except Burma Coast, Deccan, and Southern India :—

Geographical Groups.

		Ratio per 1,000 of strength.												
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
		Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia-Nagpur.	Upper Sub-Himalayan.	N.-W. Frontier, Indus Valley, and North-Western Rajputana.	South Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	INDIA.
1886–1895.	Constantly sick-rate	48·9	65·8	62·8	48·2	28·9	31·6	37·1	27·6	28·3	23·4	26·2	42·3	33·6
	Death-rates from—													
	Cholera	...	4·47	·70	·59	1·14	·82	·80	·69	·87	·14	1·31	1·29	1·32
	Respiratory diseases	1·43	2·35	2·43	1·25	1·57	4·56	6·79	2·69	1·60	1·08	1·56	6·43	3·60
1896.	Constantly sick-rate	19·6	45·9	44·5	36·1	24·8	24·2	27·4	26·0	26·2	27·3	28·5	38·6	28·6
	Death-rates from—													
	Cholera	...	...	14·09	·64	·29	·56	·07	·98	·98	...	1·37	...	·69
	Respiratory diseases	·43	1·05	·56	2·57	·59	4·70	10·49	3·26	2·84	1·10	1·49	3·87	3·72
1897.	Constantly sick-rate	28·6	37·0	44·7	38·1	26·9	26·7	34·6	28·3	26·2	31·7	33·0	37·1	31·5
	Death-rates from—													
	Cholera	·45	·19	...	...	·48	...	...	·66	1·67	...	2·31	·10	·52
	Respiratory diseases	·45	1·49	1·68	·98	3·18	2·99	7·86	2·46	1·72	1·07	1·82	3·09	32·3

In Table XXVII it may be seen that Assam had the highest admission ratios from enteric fever, dysentery, diarrhœa, hepatic congestion, and venereal diseases; the Upper Sub-Himalayan group the highest from small-pox and tubercle; the Indus Valley the highest from ague and pneumonia, and nearly the highest from other respiratory diseases; the Western Coast the highest from remittent fever and abscess of the liver; Southern India the highest from cholera and simple continued fever; and the Hills the highest from influenza, respiratory diseases other than pneumonia, and scurvy. The hill station of most influenza was Quetta. The presence of enteric fever and the prevalence of venereal disease in Assam are due to the number of Gurkha troops there.

50. Of the large stations throughout India with a strength of not less than 1,000, the following returned the highest death-rates :—

Stations.

Stations.	Average annual strength for 1897.	Ratio per 1,000 of strength.		Chief causes of mortality per 1,000 in 1897.								Total number of deaths in 1897.
		1897.	1896.	Cholera.	Ague.	Remittent fever.	Dysentery.	Diarrhœa.	Pneumonia.	Tubercle of the lungs.	Anæmia and Debility.	
Belgam . . .	1,166	34·31	4·11	2·57	...	5·15	...	...	1·72	·86	...	·40
Dharmsala . . .	1,133	25·60	5·37	...	...	6·18	...	...	4·41	5·30	...	·29
Edwardesabad . . .	1,493	24·78	15·76	...	...	2·68	2·68	1·34	12·73	1·34	...	·37
Poona . . .	2,328	21·05	7·81	...	...	1·72	·43	...	2·15	·43	·86	·49
Dehra Dun . . .	1,205	20·75	14·50	...	·83	2·49	...	...	...	12·45	...	·25

All appear in Table XXX. The principal cause of death at Belgam and Poona was plague, at Edwardesabad pneumonia, at Dharmsala remittent fever, and at Dehra Dun tubercle of the lungs. The mortality ratios of all stations will be found in Table XXVIII.

As quoted by the medical officer of the 10th Bombay Light Infantry, the finding of a board of medical officers assembled at Aden, by order of the general officer commanding, on the 4th November 1897 "to inquire into the causes of scurvy, fever, and dysentery, prevalent among the native troops," was as follows :—

"That fever (including under that name intermittent, remittent, and simple continued fevers) is very prevalent in Aden, and they are of opinion that it is due to persistent malaria, acting on constitutions already weakened by indifferent food and insufficient vegetables, together with a certain amount of nervous prostration produced by the long continued damp relaxing climate of the place. Under the head of scurvy comparatively few cases are admitted, but there can be no doubt whatever that many of the cases of bowel complaints, including dysentery, for which the admissions are usually much in excess of the average for the whole of India, are complicated by, if not primarily induced from, a scorbutic state of the constitution. The board are of opinion that these conditions are permanent, and that a regiment suffers materially in health, physique, and general stamina by prolonged residence in this place, where malaria is always present (there is no marked malarial season, as in India generally), and where the want of fresh vegetable food and good water is severely felt.

"With regard to the last remark concerning water, they desire to point out that all the water used for drinking purposes is distilled from sea-water, and consequently has but little vitality or freshness in it, a condition which tends to produce dyspepsia, or a flaccid, inert condition of the digestive system, leading to a state very appropriate for the setting up of bowel complaints, and this may have no small effect on the excessive number of cases admitted under the head of dysentery.

"On the whole, the board are of opinion that nothing but harm is likely to result from the retention of a regiment in Aden for a longer period than two years."

Regiments.

51. Details regarding the health of individual regiments are to be found in Table XXXIX, and some explanation with regard to the most unhealthy regiments is given in Table XXX. As in the preceding year, Hindu had a much higher mortality than Mussalman soldiers (end of Table XXXIX). The 6th Madras Infantry at Edwardesabad was the most unhealthy regiment, suffering much from ague. The 22nd Madras Infantry at Berhampur had most cholera ; the 8th Bengal Infantry at Peshawar most pneumonia ; the 4th Sikhs at Sarwekai most dysentery ; and the 2nd Battalion, 1st Gurkha Rifles, at Dharmsala, most venereal disease. Further particulars are given under the disease headings below.

Principal Diseases.

52. Attention having been directed to the health statistics of India, of the commands, of the geographical groups, of stations, and of regiments, it will be convenient now to consider some of the chief diseases.

Influenza.

53. Influenza decreased much, there having been 695 cases, 5·4 per mille of strength, against 1,369 cases, 10·7 per mille of strength, in the preceding year. This number of admissions for 1897 is the lowest that has been returned since the disease first invaded India in 1890. The geographical groups affected both in 1896 and in 1897 were II, IV, V, VI, VII, VIII, IX, XI, XII ; III was affected in 1896, not in 1897, X in 1897 not in 1896 ; while I has had no cases since 1892. In proportion to strength the Hills group was, as in the previous year, most severely

affected ; and the greatest number of cases also occurred in that group. The relations of the disease to stations and months may be studied in Table XXXI. The following table shows the monthly progress of the disease since its beginning in 1890. The maximum month varied from year to year, but over the period as a whole most cases occurred in April and March, and fewest in October and September :—

Years.	Number of admissions into hospital each month.												Total.	Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			
1890 . .	1	8	2,460	5,118	492	82	55	...	...	...	1	...	8,217	64·3	·41
1891 . .	...	...	1	...	105	259	123	106	51	22	17	215	899	7·0	·09
1892 . .	681	371	511	149	40	5	5	7	...	1	7	18	1,795	14·1	·15
1893 . .	8	28	65	99	95	13	9	7	...	3	53	404	784	6·2	·20
1894 . .	159	203	232	384	143	11	5	...	1	1	5	11	1,155	9·0	·16
1895 . .	26	28	53	76	110	25	60	57	19	17	31	408	910	7·0	·08
1896 . .	372	196	397	35	22	11	33	57	53	39	82	72	1,369	10·7	·30
1897 . .	97	61	100	117	84	79	22	...	42	67	23	3	695	5·4	·04
Total .	1,344	895	3,819	5,978	1,091	485	312	234	166	150	219	1,131	15,824	15·4	·18

The greatest number of cases occurred at Quetta, Bolarum, and Lucknow. At the first named station the disease was present during the first seven months of the year ; while at Bolarum it was confined to March, April, and May and at Lucknow to the last quarter of the year. The following table shows that in 1897 the native troops, though somewhat more severely affected than the European troops, were, as usual, considerably less severely affected than the prisoners :—

Years.	Per 1,000 of average strength.											
	Influenza.						Pneumonia.					
	European troops.		Native Troops.		Prisoners.		European troops.		Native Troops.		Prisoners.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
1890 . . .	33·4	·03	64·3	·41	78·6	·67	4·6	·90	16·7	3·96	18·5	5·71
1891 . . .	5·5	·04	7·0	·09	19·0	·29	2·6	·54	11·6	2·53	17·0	4·87
1892 . . .	12·7	·01	14·1	·15	56·7	1·26	3·5	·62	13·6	3·26	18·4	5·56
1893 . . .	·3	...	6·2	·20	6·4	·09	3·4	·70	12·3	2·75	15·9	3·95
1894 . . .	3·4	·01	9·0	·16	41·0	·43	3·7	·75	12·9	2·87	15·4	4·31
1895 . . .	7·8	·03	7·0	·08	20·3	·15	4·4	·51	17·5	4·20	16·4	4·00
1896 . . .	11·5	·11	10·7	·30	37·6	·60	5·2	·64	15·3	3·14	19·1	4·34
1897 . . .	4·0	·01	5·4	·04	8·4	·21	3·4	·60	13·0	2·73	15·6	4·24

It also shows the relation of the pneumonia death-rate year by year to the admission rate from influenza. Of course, the presence or absence of influenza is not the only circumstance which influences the pneumonia death-rate. Another powerful factor is the occurrence or non-occurence in the year of exposure on field service.

The cases were mostly of a mild type. In Table XXXIX it may be seen that the 24th Bombay Infantry and the 5th Bombay Cavalry at Quetta, and the 2nd Lancers, Hyderabad Contingent at Bolarum, were the regiments that suffered most.

Cholera.

54. The cholera of the native army of India may be studied in Table XXXII. There were 109 cases with 68 deaths, against 132 cases with 88 deaths in the preceding year. The admission-rate was 0·8 per mille against 1·0, and the death-rate 0·52 against 0·69. Cases occurred in every month except December, the maximum months being July and August. The greatest number of cases occurred in the Deccan and Southern India. Among stations Secunderabad and Bellary had most cases, 15 and 12 respectively; the other stations affected having less than a dozen, and most of them less than half a dozen, each. The regiment chiefly affected at Bellary was the 1st Madras Lancers, and the disease broke out in a bazar adjoining the regimental lines. Cholera was also found to be present in a village near the first camping-ground, and the medical officer of the regiment contracted a fatal attack while looking up the cases in the village. The next camp-movement stopped the disease. The circumstances attending the chief outbreaks will be discussed, so far as they are of etiological importance, in Section VI.

Small-pox.

55. The distribution of small-pox by stations and regiments is given in Tables XXIX and XXXIX. There were 53 cases with 6 deaths, against 148 cases with 13 deaths in the preceding year. The admission ratio was 0·4 per mille against 1·2, and the death ratio 0·05 against 0·10. In the Upper Sub-Himalayan group the cases bore the highest proportion to strength. The greatest number of cases occurred in Upper Sub-Himalayan, Deccan, and Indus Valley groups. Among stations Meean Meer had 10 cases, the highest number at any one station; and no regiment had more than three cases, except the 32nd Pioneers, which had seven. Regarding the three cases in the 7th Bengal Cavalry the medical officer says—

> The men all bore marks of previous small-pox, two had satisfactory marks of previous vaccination, while the third had a small scar on the right arm from previous vaccination. The cases were all modified, and soon recovered. The two cases in February were infected in the bazar, and the third contracted the disease while on leave in the Rae Bareli district. The regiment is well protected by vaccination, which probably accounts, in connexion with prompt disinfectant and isolation measures, for the non-spread of the malady.

Ague, Remittent Fever, Simple Continued Fever.

56. To ague was due over 41 per cent. of the sickness of the native army. Owing, no doubt, to the abundant rainfall following drought, the admission rate from ague rose very considerably in 1897, from 276·2 to 346·9 per mille. In Table XXVII it may be seen that in 1897 the Indus Valley was the most malarious group, and the Burma Coast, as in the previous year, the least malarious; and in Table XXXV that the most malarious months were October and November, and the least malarious month February. The regiment that suffered most was the 6th Madras Infantry, which was transferred in the malarious season of the year to Edwardesabad on the Punjab frontier, and was there hardworked.

Remittent fever caused 8 per cent. of the total deaths, and prevailed most in August, June, November, and September. The medical officers of the three regiments which suffered most offer no explanation.

The proportion of cases returned as simple continued fever is much lower in the native army than in the European; but it is pretty certain that many cases which in the latter would be so returned are in the former called ague. The simple continued fever of the native army was high in March,

but fell again, began to increase once more in June, and reached its maximum in October. This was quite different from its distribution in the preceding year.

Some medical officers mention the prophylactic issue of quinine and other antiperiodics ; and there is no doubt that this is a practice which ought to be strongly encouraged throughout the native army. The medical officer of the 10th Madras Infantry at Keng Tung and Maymyo reports very favourable results.

Enteric fever.

57. The ratio of admission from enteric fever in the native army in 1897 was 0·4 per mille of strength, and the death-rate 0·12, against 0·1 and 0·04 in the previous year. The corresponding decennial ratios of 1886—95 are 0·2 and 0·08. The following table shows that the ratios for European troops are very unlike those for native troops and prisoners :—

	1886—95.		1897.	
	Admissions.	Deaths.	Admissions.	Deaths.
European troops . . .	19·6	5·28	32·4	9·01
Native troops . . .	·2	·08	·4	·12
Jail population . . .	·3	·12	·3	·13

The next table indicates the fact that the total fever mortality in the two armies is not the same in amount, which indicates that the difference is not altogether a mere matter of diagnosis :—

Causes of Death.	Died per 1,000 of average strength.		Relative liability in percentages.			Percentage in Deaths from all causes.	
	European troops.	Native troops.	European troops.	Native troops.	Total =100.	European troops.	Native troops.
Ague . . .	·41	·65	39	61	100	1·8	5·0
Remittent fever .	·60	1·04	37	63	100	2·6	7·9
Simple continued fever	·01	·03	25	75	100	·1	·2
Enteric fever . .	9·01	·12	99	1	100	39·3	·9
Total .	10·03	1·84	84	16	100	43·8	14·0

The total fever mortality among the native troops in 1897 was to the total fever mortality among European troops as 1 : 5·5. For the period 1886—95 the corresponding ratio was 1 : 2·6, and for 1896 it was 1 : 4·2. Again, among the European troops 44 per cent. of all deaths in 1897 were from fevers ; only 14 per cent. among native troops. See also Section IV, paragraph 106. As the death-rate of European troops from enteric fever in 1897 was nearly five times as great as that of native troops from all kinds of fever, it appears, whatever may be the nature of the remittent and continued fevers from which native soldiers died, that native soldiers and prisoners were less liable to enteric fever than European soldiers.

The question of the immunity, or apparent immunity, of natives of India as regards enteric fever, has been frequently discussed in former reports. On page 71 of the report for 1896 were noticed the assertion that the blood of natives of India over the age of early childhood re-acted to Widal's test, and the conclusion therefrom drawn that the majority of adult natives had passed through enteric fever ; and it was there shown that this had by no means been proved. It seems[1] that a similar assertion had been made regarding the blood of negroes in America, and that the accuracy of the observation is now denied.

A few more observations have been published regarding the relation of the darker-skinned races to enteric fever. In Algeria[2] the native Arabs are said to be a hundred times less liable to enteric fever than the French soldiers. One of the medical officers who write in the special medical part of the report of the Chinese Imperial Maritime Customs[3] is of opinion that characteristic enteric fever sometimes occurs among the natives of China, while one states that he has never seen a pure case among them. On the other hand, the Japanese soldiers appear to have suffered from the disease during the late war between China and Japan,[4] 131 cases and 24 deaths having been officially recorded. It has been reported[5] that enteric fever is common in Bombay, but that among natives bowel symptoms are but slightly marked and the disease is not so fatal. It is, however, a fact that year after year Bombay exhibits a comparative rarity of enteric fever in its European garrison, and that for at least three years no cases have been returned from its native garrison. A good deal more must be scientifically known about the natives of malarious countries before the statement[6] that they are less liable than others to enteric fever can be critically considered. Even if there be some references to this point in Italian medical literature, it is not certain that the conclusions arrived at would hold good for darker races.

In the whole native army of India, 51 cases with 15 deaths were returned as enteric fever (Table XXIX), as against 19 cases with 5 deaths. In only three cases were *post-mortems* obtained ; and the lesions described support, or do not contradict, the diagnosis. The greatest numbers of cases occurred at Kila Drosh (Chitral), Wana, and Manipur. The regiments chiefly affected were the 1st Battalion, 4th Gurkhas, and the 27th Punjab Infantry at Kila Drosh, the 4th Punjab Infantry at Wana, and the 44th Gurkhas at Manipur, The medical officer at Kila Drosh speaks of filth-contamination of soil, water and milk, of exposure, and of fatiguing duty, and is not sure that the disease may not be endemic. He adds :—

> Race seems to modify the severity of enteric fever. It is more common among Gurkhas than any other class of the native army. The *post-mortem* examinations revealed much severer lesions in Gurkhas than in any other class. Many of the cases of fever among sepoys, especially the slighter cases, may really be mild cases of enteric fever, although they are diagnosed as ague.

The medical officer of the 4th Punjab Infantry at Wana says :—

> Samples of milk and water in use were sent to Agra for bacteriological examination ; and the analyst reported that in the water he found "a microbe probably identical with that of enteric fever, which reacted to Pfeiffer's serum within about 3 to 5 minutes." No enteric microbe was found in the milk. The sample of water was taken from the well in the fort on the 21st July. The last case of enteric fever had been admitted to hospital on the 26th June. On receipt of the analyst's report the well was immediately put out of

use for some days, and was treated with permanganate of potash solution on two days during that time. No cases of enteric fever subsequently occurred; but then none had occurred for more than a month previous to the taking of the sample. The analyst did not commit himself to a positive statement that the microbe discovered *was* that of enteric fever; and the well is a deep one, well-protected at the top, and with a constant flow of water through a shallow space of less than three feet in depth in a water-bearing gravel stratum lying between thick strata of stiff clay. I returned the cases as enteric fever; but I have never been quite satisfied of the correctness of my diagnosis, and I should have shown them as cases of what the "Nomenclature of Diseases" recognises as "Typho-malarial fever," had the regulations permitted.

The following are remarks of the medical officer of the 44th Gurkhas at Manipur:—

I think that the cause in all these cases was the drinking of impure water from tanks. It is exceedingly difficult to prevent men drinking impure water, as, when they get heated and thirsty, they will drink any water that may be close by. In many cases now, since the regiment has been at Manipur, I have traced the cause to the drinking of impure water of tanks situated near the rifle-range; and, although I had no means to make a bacteriological examination of the water, I am sure that that particular water contained the bacillus.

With regard to the two cases in No. 6 (Bombay) Mountain Battery at Wana, the medical officer reports:—

I have been unable to trace any distinct source whence the enteric contagion could have been derived. In fact, one of the men only arrived in Wana on the 12th instant and was admitted to hospital on the 17th, while the other had been here for months. If it were permitted by regulations I should class all the remittent fevers now in hospital as typho-malarial. Measures have been taken to ensure the purity of the water and milk supplies, as if the enteric poison originated in the station.

The reason why the heading "Typho-malarial fever" is not officially encouraged is that it is a most indefinite term; some understanding by it a disease *sui generis*, others a malarial fever with stress thrown upon the lymph glands of the intestinal wall, others (most numerous) a fever due to simultaneous attack of the patient by the *plasmodium malariæ* and the *bacillus typhi abdominalis*. The first two have not been proved to be things of reality. In the case of the third, the more important disease—surely the enteric fever—should take precedence *in returns;* and therein there is no more reason for the mention of the malarial element in the case of an enteric fever than in the case of any of the other diseases with which it so frequently commingles. At the same time there would be no official objection, except the somewhat formidable one of the danger of encouraging slackness in diagnosis, to the introduction into the "Nomenclature" of a heading "Fevers, not classified."

The following table compares the ratios from enteric fever of the Gurkha regiments with those of the commands to which they belonged. The differences were much greater than in 1896:—

Year.	Admissions.		Deaths.	
	Bengal and Punjab Commands.	Gurkha Regiments.	Bengal and Punjab Commands.	Gurkha Regiments.
1897	·6	2·3	·21	·62

Experience shows that in all cases of remitting fever occurring in Gurkhas the possibility of the presence of tuberculosis must be borne in mind.

Plague.

58. In 1896 there were two cases of plague with one death; in 1897, one hundred and thirty-one cases with eighty-two deaths. The following table shows the number of admissions and of deaths for each station and for each regiment affected, with the date of the first case as near as can be ascertained from the reports of the medical officers, the earliest dates being placed highest :—

Stations and Regiments.	Admissions.	Deaths.	Date of first case in each Regiment.
Bombay. 22nd Bombay Infantry	2*	5†	16th January 1897.
Bombay. 21st „ „	4	3	21st „ „
Marching—8th Bombay Infantry	1	...	W. E. 2nd April 1897.
Poona. 14th Bombay Infantry	4	3	„ „ 16th „ „
Poona. 2nd „ Lancers	29	16	1st July „
Poona. 2nd „ Grenadiers	9	6	18th September „
Poona. 19th „ Infantry	23	8	W. E. 1st October „
Hyderabad—27th „ „	1	...	25th April „
Jubbulpore—7th „ „	1	1	24th May „
Sirur— 4th „ Cavalry	14	10	17th August „
Kirkee. 2nd „ Grenadiers	...	1‡	20th September „
Kirkee. 28th „ Infantry	4	4	10th October „
Kirkee. Bombay Sappers and Miners.	2	2	24th „ „
Belgam. 26th Madras Infantry	34	22	12th November „
Belgam. 21st „ „	2	...	W. E. 17th December 1897.
Ahmednagar—4th Bombay Cavalry, Detachment.	1	1	W. E. 10th „ „
India	131	82	16th January 1897.

Note.—W. E.= Week ending.
* One afterwards transferred to the Infectious Diseases Hospital.
† Four out of hospital, including the man transferred.
‡ Out of hospital, *i.e.*, out of the regimental hospital.

The dates given refer to the attacks of soldiers, but as will be seen in the extracts given below, families or followers were sometimes affected before the soldiers. The extracts also touch on several interesting points which will be noticed in Section VI, of which perhaps the most salient is the benefit derived from quitting the infected lines and living in the open.

26th Madras Infantry, Belgam.

A plague epidemic broke out in the cantonment towards the end of October, and in spite of the precautions adopted the disease spread to the men and families of the regiment. The first case occurred on 12th November. From that date up to December 31st the total number of cases amongst the men amounted to 34; 22 proved fatal. A plague camp and hospital were formed near Nagzara about three miles distant from the cantonment. All cases occurring amongst men, families, and followers of the regiment were removed to this and treated in the hospital; the house being disinfected, as also were the two houses adjacent (one at each side). The inhabitants of these latter were segregated in the camp. The cases were treated in huts made of matting, the huts being spread over a considerable space so as to allow of abundant ventilation. The site chosen was elevated, with a good water-supply. The first cases occurred in one company, and it was thought that by this partial system of segregation the epidemic might be checked. It was found, however, that it spread from one company to another, and towards the end of November the whole regiment was placed under canvas. The houses in the unoccupied lines then underwent thorough disinfection, being first fumigated by nitrous oxide fumes;

afterwards walls and floors were scraped and the whole house flushed with a 1 in 1,000 solution of corrosive sublimate, the tiles being removed from the roof. At the end of a fortnight all the roofs were whitewashed. This disinfecting process has been carried out in connection with every case that has occurred from the first out-break. On 24th December inoculation by Haffkine's method was commenced, and by the end of the month almost every man, woman, and child had been inoculated. The disease declined in a remarkable manner during the last two weeks of December, and has now nearly disappeared.

2nd Bombay Lancers, Poona.

The first case of plague in the 2nd Bombay Lancers was in a cook, the private servant of Jemadar Hurnam Singh. The patient, a boy of 14, was attacked on the 25th June and died on the 27th. The next case was in a troop cook who was attacked on the 27th June and died on the 30th. The first sowar to be attacked was in B squadron on the 1st July. From the 1st to the 10th July cases occurred daily, after which they occurred at intervals of a few days.

As regards the origin of the first case, it is difficult to trace it. From inquiries it appears that neither of the first two persons attacked had been out of the lines for at least a month prior to the appearance of the disease. As both of those were cooks, and as the majority of the earlier attacks were in the case of men who cooked their own food, it is possible that the origin of the disease was in some way connected with the food supply and with the cooking of the food. The bunniah who supplies A Squadron received a consignment of wheat from the city about eight days before the first case occurred. This wheat is reported to have been so bad that after the first issue the men refused to buy it, and it was returned to the city dealer. This may have been the cause of the outbreak. Surgeon-Captain Beveridge, A. M. S., a special plague officer, who saw the first case, and who inspected the lines, was of opinion that a supply of barley received from Bombay a short time before was the cause of the outbreak. This supposition is strengthened by the fact that a number of diseased rats and one dead one were afterwards found in close proximity to the house in which this grain was stored. Another fact which may point to this grain as the primary source of the infection is that a syce who was employed in carrying this grain on his head contracted plague, the bubo appearing on his neck. Soon after the occurrence of the first cases, dead rats were found, and later the dogs and cats in the lines appeared to suffer from the disease. Two dead squirrels were also found in the lines when the disease was prevalent. It is probable that these animals died of plague.

Movements.—On the 3rd of July 1897, the regiment went under canvas, and the entire lines and the regimental bazar were evacuated. The families were accommodated in the Mountain Battery lines at Wanowrie, and so had not to go into tents. When the regiment first went into camp, they were encamped near the lines, the two wings being at some distance apart, and the squadrons of each wing the same; but as several fresh cases occurred in A squadron, this squadron's camp was removed to Hadapsar, to a site close to No. 2 Cholera Camp, on the 9th July 1897. For about ten days after going into camp, B, C, and D remained practically free from plague, and D squadron remained free till the 19th July 1897, when it returned to the lines. B and C squadrons did not remain free for full ten days, and their camps were removed to No. 2 Cholera Camp at Hadapsar on the 22nd and 24th July 1897. A squadron returned to the lines on the 28th July 1897, as it had then been free from plague for eighteen days; B squadron returned to the lines on the 2nd August 1897; and C squadron on the 12th August 1897, as they had then been free for over ten days. The families of A and D squadrons were admitted to the lines on the 3rd August 1897, of B squadron on the 4th August 1897, and of C on the 9th August 1897.

When the regiment went under canvas, plague at once stopped practically in all but A squadron, and this, after removal to Hadapsar, had only one case—a follower. B, C, and D squadrons in their first camp were free for seven days, when a case occurred in B squadron, and a little later C squadron had cases. The recrudescence in B and C squadrons was probably due to their being infected by diseased rats, which went from the lines into their tents. After they were removed to Hadapsar they had only three cases. The women and children after their removal to Wanowrie had only three cases, *viz.*, one woman and two children, and these within the first few days of their segregation.

Disinfection and Precautions.—After the evacuation of the lines the huts were disinfected as follows :—

(1) All rubbish and sweepings were burnt inside the hut.
(2) Infected huts fumigated either with sulphur or chloride of lime.
(3) Roofs opened up.
(4) Walls and roofs sprayed with perchloride solution (1 in 1,000).
(5) Floor and walls saturated with chloride of lime solution.
(6) Floors of infected huts dug up to the depth of 6 inches and removed.
(7) Huts lime-washed.

Rat holes were dug up, and as many as possible of the rats killed. Water was poured down the holes, and some rats were killed in this way. Traps of several kinds were laid for them, and professional rat-catchers were brought on the scene ; by these means all remaining rats appeared at the time to have been got rid of. The suspected grain was exposed to the sun for several days, and the sacks disinfected in a 1 in 500 solution of perchloride of mercury. A quantity of linseed meal which was suspected was burnt. It will be seen from the above that the regiment returned by squadrons to the lines. The reason of this was the inclemency of the weather. Although each squadron had a clean bill of health for at least ten days before returning to the lines, plague broke out afresh within a few days after the return. During the week ending 2nd August 1897 nine cases were reported. Most of these cases were amongst the followers. As each case occurred, the occupants of the hut on either side of the infected one were segregated and the huts disinfected. Professor Haffkine on the 25th, 26th, and 27th August inoculated 647 men, followers, women, and children, that is, a little more than half the entire strength, including followers. The cases occurring on the return of the regiment to the lines were probably due to some of the huts having been re-infected by rats. The rats cannot have all been got rid of at first, and the disinfection must have gone on while a few rats still remained ; and that they were a source of real danger is shown by the fact that a large rat that was killed one day and supposed to be quite healthy was bacteriologically proved by Professor Lustig to be suffering from plague. The regimental bazar had no cases at first, but after re-occupation had several cases. During and after the disinfecting operations rats were swarming in the bazar. It was a mistake to encamp the regiment at first so close to the lines, as the infected rats found their way to camp and started the disease afresh. It was essentially necessary to go into camp somewhere, as the infected rats were so numerous that otherwise the disease would have spread with great rapidity. Another mistake was made in commencing the disinfecting before all diseased rats and other animals were got rid off.

Health of men in Camp.—During the time the regiment was under canvas, although the weather was at times very inclement, the general health maintained was remarkably good.

As above stated, plague broke out within a few days after the return of the regiment by squadrons to the lines, mainly, however, amongst the followers and officers' servants and in the regimental bazar. The same measures as regards segregation, disinfection, etc., as formerly, were carried out in each case. By the end of August, however, the disease showed no signs of abating. On 12th September one of the British officers, Lieutenant J. G. Griffith, was attacked by plague. He was removed immediately to the Sassoon Hospital.

On 14th September the regiment again went into camp, this time at Dhanowrie, about 6 miles from the lines, the families being again accommodated in the Mountain Battery lines at Wanowrie. Three days after the regiment went into camp one case occurred in a sowar.

The regiment remained under canvas for the rest of the year at different places, including Dhanowrie, Chinchwad, Rahetin, and Aundh. Though absolute segregation was not enforced till 20th December, very little communication between the men and the cantonment of Poona was permitted. With the exception of the one case noted above as occurring three days after encampment began, the regiment and followers remained absolutely free from plague till the end of the year. The above history of the occurrence of plague in the regiment and of the measures adopted for checking it, affords a striking instance of the simplicity of the only ultimately successful of those measures, *viz.*—segregation in the open air and at a distance from all sources of contagion.

It should be mentioned that, in addition to the inoculation of about half the regiment by Professor Haffkine in August, all but about 100 of the remainder, including followers,

were inoculated in the end of October by the then officiating medical officer, Surgeon-Lieutenant Standage.

The fact that an efficient system of what was practically segregation came into operation at nearly the same time as the above, prevents any definite evidence being obtainable as to the value of the inoculation, but it may be stated that of the cases admitted suffering from plague after the inoculation was started, not one had been inoculated.

19th Bombay Infantry, Poona.

Plague first broke out in the line bazar, 19th Bo. Infantry, on the 6th September 1897, when three cases were discovered in a family living in the line bazar—all the three cases (one boy and two girls) being children aged 13, 10, and 7 years, respectively. The 1st and 2nd had fever and tender glands in the groins (on the 6th September), the 3rd had high fever but no enlarged gland ; this, however, subsequently developed, and all three cases ended fatally at the General Plague Hospital, where they were sent (1st and 2nd on the following day—7th September 1897), and the 3rd on the 10th (4 days afterwards).

As far as could be traced, the infection of these cases was contracted in Kirkee, where the three children attacked had been, and taken part in a firework festival held there and had actually been staying in a house where a plague case had occurred. All three of the children were noted to have abrasions or sores on their feet and legs.

General Remarks.—It will be observed that in this out-break plague gradually spread in the lines until the whole locality became affected ; that the practice which was first in vogue, namely, partial segregation and disinfecting, opening up of infected houses and those on either side, was quite inadequate to check the spread of the disease ; that the men and families evidently took out the infection with them to the 1st camp on the race-course, and that it was only when the two camps, men and families, were a second time moved a distance away and separated, that effectual good resulted and the disease was eventually stamped out. The disappearance of the disease in the women's camp immediately after their 2nd removal was especially remarkable, as a few cases still continued to occur amongst the men encamped on the hill for some days afterwards.

Concluding Remarks.—The practice first instituted to combat the disease was at the time considered the best, and the disease assuming peculiar types was not clearly diagnosed ; in some cases again the disease occurring in the rainy season, it was not thought advisable to remove the inhabitants into camp, unless absolutely necessary. The disease appeared to be limited and capable of being grappled with successfully, but this proved afterwards to be fallacious.

It appears, first, that plague is greatly a disease of locality, at any rate primarily, and to that locality it clings with unaccountable tenacity ; second, that its spread is gradual but sure, provided that animal beings exist where the plague has engrafted itself to convey the disease or keep it alive ; third, that the disease may be spread primarily by ground animals, but specially rodents, *e.g.*, rats and mice, and to a less extent, by cats, dogs, etc. (many of the former were found dead in the lines and numbers diseased). I have noted some walking or crawling along as if paralysed ; the dead rats were noted also to be covered with vermin, fleas, etc. The spread may also to be by infected clothing, but especially rags, paper, and old cotton coming from houses infected ; the disease may also be spread by insects, especially bugs, fleas, lice, and to a less extent by flies, mosquitoes, and ants (there was quite a pest of bugs and fleas at the time of the outbreak in the lines) ; the dust in an infected house is probably a fertile source of the infection.

The disease might also be carried by birds, such as crows, carrying infected food or rags from one place to another. It would appear that the conditions most suitable for the plague are houses built on the ground, improper ventilation, want of air and sunlight, slightly moist atmosphere, and dampness combined with dirt, uncleanliness, and especially overcrowding. It would appear to be dangerous to sleep on the ground, as is the custom for the great part amongst the men and families in the lines, and more especially if the extremities are uncovered, and still more so if there are any open sores or cracks on them.

Most of the buboes occurred in the groin generally of one side, and sometimes both, and to a less extent in the arms, necks, and elsewhere. The infection may probably also be conveyed by the extremities rubbing the infected dust, and having cuts or abrasions, etc., on them. Partial segregation being of little avail, when the first case occurs in native regimental barracks, and most certainly if two or three subsequent cases occur, it would

be best to evacuate the whole lines completely, which will in the end be a saving financially, and also probably of life, the lines being given over to a thorough inspection, cleansing, lime-washing, and opening up to the sunlight and air. The following measures adopted were most successful in combating the disease :—

In the lines.—(*a*). Thorough evacuation of the lines, ejecting all animals, catching and burning all rats and mice by aid of kerosine oil. Opening up of each house, a strip of tiles being removed three feet in width from top to bottom to allow entrance of air and sunlight. Scraping the walls and thorough lime-washing. In all infected houses the whole tiles removed, and the interior freely exposed, disinfected with sulphur first, and afterwards perchloride of mercury solution 1 in 1000, thoroughly syringed all over the interior, and then lime-washed with slaked lime, the floors being especially also lime-washed, after having been thoroughly syringed with perchloride, and stamped down. Thorough sweeping of all houses and the whole lines. Burning all rags, refuse, etc., in fact, attention to scrupulous cleanliness. All ropes hanging in houses cut and burnt. Segregation of at least a wide area of not less than 50 yards radius. But the removal of all inhabitants into camp, separating the families from the men, and frequent removal of camp, if cases continue to occur, was the most successful class of measures.

In Camp.—As cases occurred, segregating all occupants of tents on either side of the infected one, sending the plague cases to a Special Plague Hospital, and segregating those occupying the infected tent near the Special Plague Hospital ; the three tents being thoroughly disinfected with sulphur and perchloride of mercury, and then struck and spread out in the sun. After a day these tents were pitched inside-out and exposed to the sun for a few days, when they were fit for use. Setting apart at least four tents for hospital use, one for general cases of disease, one for suspicious cases of plague, and one spare tent undergoing disinfection. Opening up of each individual hut [*sic*] in camp to the sunlight, one side being placed up in the morning, the other in the afternoon, so that the sun's rays might search out each part of the interior ; spreading out of every particle of kit and clothing in the sun daily, and frequently turning the same. Washing of all suspected clothing in boiling perchloride of mercury solution.

Segregation of all guards of men going through or in known infected localities, and especially segregating attendants on sick plague patients in hospital, and burial parties on their return to camp. Procuring a week's supply of grains, food-stuffs for the regiment, and daily exposing the same to the sun.

Thorough disinfection of patients' clothing and persons in perchloride solution on return from the plague hospital. The segregation tents were placed same distance away — 500 yards from the general camp ; the time for segregation being not less than 10 days, but in any suspected or especially uncertain case 15 days, so as to cover the *incubation period.*

4th Bombay Cavalry, Sirur.

On the 28th June some cases of cholera occurred in the regiment and in the town of Sirur. The town was placed out of bounds on this date, and the drinking water supply taken from a well in one of the compounds.

On the 26th July, in reply to a question whether the town should be brought within bounds, I drew the attention of the adjutant to the high death-rate of the town, and recommended that the men be not allowed out of the lines.

The following day, 27th July, the Sirur municipality asked me to see two patients ; I found they were both suffering from plague. This was reported to the adjutant, and special orders were issued, and special regimental police appointed to prevent communication with the town. The arrangements appeared to work satisfactorily, and although plague progressed in the town, no cases occurred in the regiment till 17th August 1897.

On this date two Punjabis living next one another were attacked. Both these men were unmarried, and it is probable that some communication was established with the town.

The town population was about 7,000. A very severe epidemic has prevailed. Over 600 cases have been registered and quite that number have been unreported. The town was in my charge, and I should estimate that about 1,100 cases of plague occurred. I believe that the town is now free from plague.

It is almost certain that infection in the first instance was from prostitutes in the town. Rats may have carried the disease to the private bungalows. Cats were frequently found dead in plague houses in the town of Sirur ; and a few days after plague occurred among my servants, a cat was brought to me obviously out of sorts, and with

enlarged and tender sub-maxillary glands. I kept this animal under observation, and in about 10 days it recovered completely.

It is difficult to obtain accurate dates, but among my private servants, on one occasion at least, the incubation period was exactly 8 days. One of two stable boys sleeping together was attacked. I went into tents that day, and took all the servants with me and had them all strictly under observation. On the 8th day exactly the second boy became ill of plague. No further case occurred among my servants.

Fourteen men were inoculated with 2 c.c. and 35 men, including myself, with 5 c.c. of Dr. Haffkine's lymph. Of those treated with 2 c.c. one died of plague about six weeks after he had been inoculated.

All these 42 men were exposed to infection, and no other case occurred among them. The dose of 5 c.. produced severe after-symptoms ; and in some cases fever and extreme prostration continued for several days. With the men who were given the larger dose some persons in the town were inoculated, and of these one died that night and a second was seriously ill for 24 hours.

There seems to be little danger of the disease spreading among healthy men, if living in the open.

Not a single case of direct infection occurred from the camps, while in the town of Sirur it was noted that five or six members of one family have contracted the disease.

Sunlight and air were used as disinfecting agents, and all articles requiring disinfection, such as saddlery, uniform, silk, etc., which could not be boiled, were exposed to the sun continuously for several days.

So far no cases have occurred among our attending men. Most of them have been inoculated with lymph supplied by Dr. Haffkine.

2nd Bombay Grenadiers, Poona.

Cases of plague were known to have occurred in the civil bazar close to the lines early in September. Every precaution was taken to prevent the spread of the disease to the regiment ; but the close proximity of the crowded bazar rendered this impossible. When a case occurred in the lines, the infected hut, as well as those on either side of it, was evacuated. The roof was opened up to admit sunlight, the floor was removed, and perchloride solution and white-wash were freely used. All clothing and belongings were disinfected by boiling and soaking in perchloride or carbolic acid solution ; and such as were soiled were burnt. The other occupants of the hut were segregated for ten days. After the regiment moved to camp on the race-course, similar procedure was adopted, and infected tents were saturated with perchloride solution, and were then pitched wrong side out for some days.

The first move into camp on the race-course checked the ravages of the disease for a time, and the second move to the camp near Gibbet Hill effectually eradicated it. The regiment has been free from plague since 15th November.

21st Madras Infantry, Belgam.

Bubonic plague, which had previously been raging in the cantonment and the 26th Regiment, Madras Infantry, appeared in the regiment on November 28th, when two cases occurred in the families in the lines.

The plague cases were removed to the 26th Regiment plague camp at Nagzera, about three miles distant from the cantonment. The men were placed in tents about 100 yards distant from the lines. The families were removed to Hendalgi camp, situated on the Vingorla road, about two miles distant, which was likewise the segregation camp for the cantonment.

The houses in which the cases occurred, as well as those on each side, were thoroughly disinfected, being first fumigated by nitrous acid fumes and afterwards thoroughly flushed with 1 : 1,000 perchloride of mercury solution, the walls and floors having been scraped. Ten days afterwards the houses were white-washed.

The families and men were allowed to re-occupy the lines on December 12th, up to which time no further cases had occurred.

Subsequently no cases occurred amongst the men ; 3 women, 5 children, and 1 follower were affected : 7 of the family cases and 1 follower died. Disinfection was carried out as before.

On December 30th inoculation with Haffkine's prophylactic fluid was commenced.

The epidemic has now practically disappeared.

The following table giving the incidence of plague by months, stations, and groups, may also be of interest, especially, perhaps, in the future :—

Stations.	1. Admissions. January.	February.	March.	April.	May.	June.	2. Deaths. July.	August.	September.	October.	November.	December.	Total.
C													
Hyderabad. . . .	...	...	...	1	...	...	...	...	...	...	...	...	1
	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	...	...	...	1	...	...	...	...	...	...	...	...	1
	...	...	...	...	...	...	...	...	...	...	...	...	...
A													
Jubbulpore	...	...	...	...	1	...	...	...	...	...	...	...	1
	...	...	...	...	1	...	...	...	...	...	...	...	1
B													
Ahmednagar . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
	...	...	...	...	...	...	...	...	...	...	...	1	1
Belgam	...	..	...	...	...	...	...	...	...	...	22	14	36
	...	...	...	...	...	...	...	...	...	...	12	10	22
Poona	...	...	...	2	...	2	16	9	12	20	4	...	65
	...	...	...	2	...	1	7	5	4	12	2	...	33
Kirkee	...	...	...	...	...	...	...	...	...	2	3	1	6
	...	...	...	...	...	...	...	...	1	2	3	1	7*
Sirur	...	...	...	...	...	...	...	10	1	3	...	...	14
	...	...	...	...	...	...	...	7	1	2	...	...	10
Group IX.—Deccan .	...	...	...	2	1	2	16	19	13	25	29	16	123
	...	...	...	2	1	1	7	12	6	16	17	12	74
Bombay	3	1	...	...	...	...	...	...	1	1	...	...	6
	2	1	...	4	...	...	...	...	...	...	1	...	8†
Group X.—Western Coast.	3	1	...	...	...	...	...	...	1	1	...	...	6
	2	1	...	4	...	...	...	...	...	...	1	...	8
Marching Bombay .	...	...	...	1	...	...	...	...	...	...	...	...	1
	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	3	1	...	4	1	2	16	19	14	26	29	16	131
	2	1	...	6	1	1	7	12	6	16	18	12	82

* One out of hospital.
† Four out of hospital.

As explained on page 2 of the tabular appendix to this report, the months shown above are not really calendar months, but 4-5weekly periods.

Dengue, Typhus, Rubella, Cerebro-spinal fever, Scarlatina, Measles, Erysipelas, Mumps.

59. During the year under review there were no cases of dengue, typhus, cerebro-spinal fever, or scarlet fever. Rubella occurred in the Punjab and Bengal Commands, 33 cases in all, against none in the previous year;

19 cases in the 8th Bengal Infantry, and 14 cases in the 1st Battalion, 3rd Gurkhas. Measles occurred mostly in the Punjab and Bengal Commands; 179 cases in all, against 263 in the previous year, including 32 in the 2nd Battalion, 1st Gurkhas, 23 in the 2nd Battalion, 4th Gurkhas, and 21 in the 1st Battalion, 1st Gurkhas. There were 34 cases of erysipelas, mostly in the Punjab Command, but not more than 3 cases in any one regiment. Of mumps there occurred 742 cases, against 1,081 in the preceding year, the maximum number being 140 in the 25th Bombay Rifles.

Scurvy.

60. The ratio of scurvy admission fell from 4·1 in 1896 to 2·8 in 1897. There were in all 362 admissions, against 529 in the preceding year; 32 per cent. in the Bombay Command, and 27 per cent. in the Punjab Command. Twenty-five per cent. occurred in the hills, principally in the hills of the north-west frontier, and 23 per cent. in the Deccan. Again, 7 per cent. of the total occurred at Fort Sandeman, 5 per cent. at Raichur, and 4 per cent. at Loralai. Only one death was directly attributed to scurvy, against ten in 1896. The regiments on the frontier, where vegetables are grown with difficulty or are hard to procure, were, as in the previous year, most affected by scurvy. But the medical reports show that the amount of scurvy existing is far greater than the amount returned. This shows that further measures are required to eradicate the disease. In this important matter the prophylactic and therapeutic methods advocated by Professor Wright of Netley[7] are well worthy of being noted by medical officers for trial. The 5th Regiment of Infantry, Hyderabad Contingent, returned 17 cases, the highest number of any regiment, and the medical officer says:—

> During the year several cases of scurvy occurred, giving 17 admissions, and six of the men had to be sent on sick leave. There were many other mild or suspicious cases which were treated as out-patients. The causes of the disease were the prevailing scarcity, indifferent quality and dearness of grain foods; the almost entire absence of vegetables,* which could only be procured from a great distance by rail; the fact that the well water of Raichur cantonment contains much saline matter, and this year, as the subsoil water was extremely low, the water contained more salts in solution. Steps were taken to stop the disease, such as special diet, supply of vegetables, and an issue of lime-juice twice a day. The disease has now entirely disappeared.

The medical officer of the 7th Bombay Lancers mentions that the majority of ulcer cases were complicated with slight scurvy. A committee which sat at Aden reported that—

> Under the head of scurvy comparatively few cases are admitted, but there can be no doubt whatever that many of the cases of bowel complaints, including dysentery. . . . . are complicated by, if not induced by, a scorbutic state of the constitution.

The medical officer of the 3rd Madras Lancers, wherein 7 of the 9 cases were found among the recruits, attributes the disease to poor and insufficient food before enlistment; but he does not explain why men in that condition were enlisted.

In the report for 1896 ten years' statistics for scurvy were given at this place.

Tubercle of the lungs.

61. There was a slight rise in the admission rate, and a somewhat greater rise in the death-rate, from tubercle of the lungs. The Bengal Command, as in 1896, had a higher death ratio than the other corps. Among the groups the highest admission

* The medical officer, 2nd Infantry, makes the same complaint of Raichur.

ratios were those of the Upper Sub-Himalayan and the Hills. The Gurkhas suffer more than other native soldiers from tuberculosis :—

	Admission-rates.	Death-rates
Bengal and Punjab Commands . . .	3·8	1·34
Gurkha Regiments	10·3	5·55

The number of admissions and deaths from tubercle of the lungs in each Gurkha and other regiment is given in Table XXXIX. The medical officer of the 1st Battalion, 5th Gurkhas, at Abbottabad, says—

As usual among Gurkhas, the chief cause of mortality is tubercle of the lungs. It seems to be endemic among the Gurkha race, and, I have very little doubt, causes a heavy mortality among the population of Nipal. It is a primary disease as seen among the soldiers, and this points to hereditary taint.

On the contrary, the medical officer of the 2nd Battalion, 2nd Gurkhas, at Dehra Dun (10), whose opinions regarding the greater prevalence of conjunctivitis and phthisis among married than among single Gurkha soldiers were noticed in Section III, paragraph 56, of the report for 1896, remarks*—

I strongly hold that the improvement in the environment of the conditions of the married huts is urgently needed. Another disease in the regiment points to the same conclusion, namely phthisis. The late Dr. Parkes pointed out how in the old barracks, badly ventilated as they were, the rate of phthisis was proportionately high amongst the Guards, but at once diminished as soon as the new barracks were built. Phthisis is supposed to be a disease peculiarly prevalent amongst Gurkhas, but Dr. Armstrong, the medical officer at Khatmandu, informs me that the reverse is the case. There can be no doubt, therefore, that a change whereby the ventilation of the married huts is bettered is imperatively necessary.

If the Gurkha has a hereditary vulnerability, it is all the more reason why his hut should be better ventilated than usual ; and if he has no such tendency, but derives his liability to attack from the defective ventilation of his hut, the sooner the state of the hut is improved the better for all concerned. The Gurkha is so valuable a soldier that it is certainly worth while to make experimentally the life-saving improvement asked for.

As non-turberculous phthisis were returned 64 admissions and 13 deaths. Since there is hardly, with the exception of that due to the inhalation of irritants, such a thing as non-parasitic phthisis, and since the tubercle bacillus is by far the most common parasite in phthisis, it is probable that at least most of the 64 cases were really cases of tubercle of the lungs ; but they could not be included under that head in face of the opinions of the diagnosing medical officers.

Respiratory Diseases.

62. Both morbidity and mortality from respiratory diseases were less than in 1896, and were also unusually low :—

Period.	Ratio per mille of strength.			
	Respiratory Diseases.		Pneumonia.	
	Admissions.	Deaths.	Admissions.	Deaths.
1886—95 . . .	50	3·75	13	3·02
1896	43	3·72	15	3·14
1897	38	3·23	13	2·73

* See also Table XXX.

Respiratory diseases are the chief cause of death in the native army, and in 1897 over 24 per cent. of all deaths were due to them. For respiratory diseases other than pneumonia the highest admission ratios were those of the Hills and the Indus Valley, and the lowest that of the Deccan. Of commands the Punjab had the highest death-rate, and Madras the lowest.

Pneumonia. (8)

63. The admission and death ratios from pneumonia, as may be seen from the table given in the preceding paragraph, fell considerably; and were no longer, as in 1896, above the decennial ratios. In the second table in paragraph 53 is displayed the relation from year to year between pneumonia and influenza.

In Table XXVII it may be seen that the admission ratio was highest, as usual, in the Indus Valley; and in the death-rate the Indus Valley thoroughly maintained its primacy. Both in the Indus Valley and in the Hills, as may be seen in Table XXXVII, pneumonia was most prevalent in the cold months, and the same was the case for India as a whole. Table XXXIX shows the incidence of the disease by regiments. The greatest numbers of cases were in the 8th Bengal Infantry, the 13th Bengal Infantry, the 6th Punjab Infantry, the 6th Madras Infantry, the 3rd Punjab Cavalry, and the 40th Pathans, all stationed on or near the north-west frontier. The following are some extracts from the reports of the medical officers of those regiments :—

8th Bengal Infantry.—Nearly all the cases occurred during the month of December, when the weather became very cold, and the men, coming from down-country, were not able to stand it well. A warmer scale of clothing was issued to the men, with the result that the pneumonia began to decrease.

It is to be noted that the 8th Bengal Infantry was in 1896, as may be seen on page 75 of the report for that year, second on the list of regiments with much pneumonia, although it was then stationed at Nowgong in Central India.

6th Punjab Infantry.—One batch of cases with seven deaths occurred just after the march from Datta Khel to Dera Ismail Khan ; another batch with three deaths amongst the men of the detachment at Kajuri Kach during November and December. Although these cases were due primarily to cold and exposure, the large number of cases and the high rate of mortality show a predisposition to disease acquired by a long residence in the unhealthy Tochi Valley.

6th Madras Infantry.—Four occurred at Bangalore and the remainder at Bannu. The disease in most cases supervened in malarial subjects, and commenced with the cold weather in December. Pneumonia has been very prevalent this year at Bannu.

3rd Punjab Cavalry.—Fifteen of the cases and five of the deaths occurred in the detachment at Edwardesabad. The medical officer there reports :—" Most of them were severe and of the lobar variety of pneumonia. The disease appeared to be infectious, and in some cases it was contracted by the sick orderlies of the pneumonia cases. The following precautions were taken to check the spread of the disease : sick-orderlies were changed every two days, and as much air space as possible was given to each case." The other 12 cases, with four deaths, occurred at head-quarters, principally in January, February, and December. Pneumonia is the most severe and dreaded disease of these frontier stations; it causes the greatest part of the mortality; and in men who recover it often leaves permanent weakness and unfitness for work, while the liability to a recurrence of the disease is increased in succeeding cold seasons. The cases under my observation were of the non-infectious variety. Infection is best guarded against by giving increased cubic space to each case, and sufficient ventilation ; also by arranging that sick-attendants should be relieved from constant duty, and sleep away from the patients. The causes seem to be cold and chill acting on men predisposed by previous attacks of malarial fevers.

Dysentery, Diarrhœa. (9)

64. From dysentery the admission-rate was much, and the death-rate considerably, higher than in the preceding year. The comparative prevalence and mortality from dysentery in the various portions of the army of India may be studied in Tables XXVI and XXVII. The highest admission ratios were in the Punjab command and the Assam group; the highest death-rates in the Bombay command and the Assam group. The reason why the ratios of India are higher than those of any of the commands is that under the head of India is included field service, and field service gave rise to much dysentery. The death-rate of native troops from dysentery was to that of European troops as 1 : 3·8; and the percentage of dysentery in total cases of death was 5·1 in the case of native troops, and 11·0 in the case of European troops. Again, the case mortality of native troops was 1·00 per cent., while that of European troops was 5·32. The admission rate of native troops was, however, as in the previous year, much higher than that of European troops, 66·4 to 45·7. Looking only to the quinquennium in the following table, it is seen that in all groups, except Southern India, the admission ratios of natives were greater, and usually much greater, than those of European soldiers :—

		Ratio per 1,000 of strength.												
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIIB
		Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	N.-W. Frontier, Indus Valley, and North-Western Rajputana.	South-Eastern Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hill Stations.	Hill Convalescent Depôts and Sanitaria.
European Troops	1891—1895	70·2	38·4	...	57·7	30·2	22·5	18·1	18·6	29·4	18·0	31·3	19·1	26·5
	1896	58·0	26·1	...	66·3	38·0	15·9	15·7	17·4	32·1	9·0	34·0	17·7	22·6
	1897	49·1	27·6	...	61·3	40·5	27·7	41·5	34·1	32·0	13·6	53·5	21·7	22·8
Native Troops	1891—1895	72·4	92·0	112·1	104·6	43·8	32·7	61·3	25·2	30·2	54·0	19·4	58·5	...
	1896	65·0	37·2	85·7	69·1	33·0	19·2	40·5	31·8	28·6	44·7	25·5	41·6	...
	1897	91·1	24·5	107·8	60·5	50·4	27·2	78·0	39·6	45·9	69·8	28·6	49·6	...

The table shows also that among both European and native troops dysentery is prevalent in Lower Bengal and Burma, and comparatively infrequent in Central India. Among native troops the greatest prevalence was in Assam, and the least in Southern India; and among European troops the greatest in Burma Coast, and the least in the Western Coast group. Table XXXVIII is devoted to the incidence of dysentery by stations and months. The maximum month was November, and the maximum four months August—November. This distribution does not bear the same relation to that of pneumonia as in 1896. The ratios of individual stations will be found in Table XXVIII, where it will be seen that high ratios were most numerous among the north-west border stations, and that field service ratios were high; and the incidence of the disease by regiments in Table XXXIX. The 4th Sikhs at Sarwekai had most cases, but the medical officer says they were not of a virulent or epidemic character, occurred mostly at small posts in the Shahur Valley, and were probably due to scarcity of fresh vegetables, and to the hardness and mineral constituents of the water. By far the greater number of the cases in the 8th Bengal Infantry occurred in men out with detachments and on convoy duty, who were naturally more exposed to cold and to the risks of bad water and irregular diet.

The admission and death ratios from diarrhœa also rose in the year under review.

Hepatic Abscess. (9)

65. Hepatic abscess is not a frequent disease of the native soldier, and all that requires to be said on the subject has already been said in Section II, paragraph 30. Details are given in Tables XXVI—XXIX and in Table XXXIX. The reports of 1897 throw no new light on the subject.

Venereal Diseases.

66. Full details regarding venereal diseases in 1897 will be found in Tables XXVI—XXIX, and in Table XXXIX. The following table is given to compare with the corresponding one in Section II, paragraph 31 :—

Years.	Primary Syphilis.	Secondary Syphilis.	Total Venereal Diseases.	Years.	Primary Syphilis.	Secondary Syphilis.	Total Venereal Diseases.
1877 . .	11·5	5·3	26·7	1888 . .	13·5	5·4	31·5
1878 . .	16·3	5·8	37·5	1889 . .	16·6	6·4	38·9
1879 . .	16·5	7·0	37·1	1890 . .	16·0	6·9	41·1
1880 . .	15·0	5·8	33·3	1891 . .	13·6	6·9	37·9
1881 . .	17·9	7·2	39·5	1892 . .	14·1	7·9	39·6
1882 . .	14·7	5·9	34·4	1893 . .	13·3	9·0	36·4
1883 . .	13·0	6·5	31·6	1894 . .	13·8	8·2	32·3
1884 . .	11·0	5·3	27·9	1895 . .	13·1	7·3	31·3
1885 . .	11·2	5·9	30·1	1896 . .	15·5	8·9	37·2
1886 . .	13·7	6·0	28·1	1897 . .	16·1	9·0	40·8
1887 . .	12·6	6·1	27·4				

The figures for India are not available for the years before 1877. All the venereal ratios of native troops run at a much lower level than those of European troops; and they have remained comparatively steady during the years of which the statistics are given.

A comparison of Tables I and XXVI will show that, leaving the Hyderabad Contingent out of account, the lowest ratios for both European and native troops were those of the Punjab Command, and the highest those of the Bengal command. In all the commands the ratios of native troops were much lower than those of European troops.

Whilst among the European troops an average strength of 68,395 gave 33,219 admissions, in the case of native troops an average strength of 129,802 gave only 5,295 admissions. In other words, there were only 41 admissions for every 1,000 men among native troops, against 486 for every 1,000 men among Europeans troops.

The admission rate was 3·7 per 1,000 more than in 1896. There were 12 deaths and 106 invalidings directly due to venereal disease. The actuals and ratios of individual stations for total venereal disease and for each form of venereal disease will be found in Tables XXIX and XXVIII. In 25 out of 184 stations the admission rate from secondary syphilis was over 20 per 1,000 o strength, and in 36 it was over 10 per 1,000.

For India, the ratio of primary syphilis *plus* soft chancre rose by 0·6 per 1,000 of strength, that of secondary syphilis by 0·1, and that of gonorrhœa by 2·9.

In 1897 the Bengal command had the highest ratio for primary syphilis *plus* soft chancre and for gonorrhœa; while the Madras command had, as usual, the highest ratio for secondary syphilis.

As usual, the Gurkhas suffered proportionately more than the other native troops. From the remarks of the medical officers of the three Gurkha regiments which suffered most, it seems that something might be done to diminish the temptations to which these valuable soldiers are at present exposed.

Beri-Beri. Strongylus Duodenalis. (9)

67. Of the 137 cases returned as beri-beri, 135 occurred in Madras regiments, especially the 20th, the 19th, and the 9th infantry regiments. The Madras command accounted for 18 out of the 20 deaths; 3 in Burma and 15 in the peninsular part of the command. A considerable amount of doubt still attaches to the diagnosis of these Indian cases. The medical officer of the 9th Madras Infantry says:—

> The men affected were almost all East Coast and Northern Circars Telugus, who are particularly liable to this disease. It chiefly appeared in a chronic form, with more or less general œdema, functional disturbance of the heart, and anæmia. The œdema usually disappeared under rest and suitable treatment. Some cases were followed by partial loss of power over the lower extremities. Six cases had to be sent away on sick leave, and one died in hospital from embarrassment and subsequent failure of the heart's action, probably due to pericardial effusion.

No cases of sickness or death caused by the *strongylus duodenalis* (*dochmius, ankylostomum*) were reported.

Guinea-worm.

68. In the year under review the admission rate from guinea-worm rose from 4·2 to 4·9 per mille, and the number of cases from 534 to 632. The distribution of cases returned by stations, groups, and commands will be found in Table XXIX. By far the largest number of cases occurred in Group VIII, that is, South-Eastern Rajputana, Central India, and Gujarat. Group IX, as usual, came next. Of the total number of cases, between 10 and 11 per cent declared themselves at Sirdarpore in Group VIII, and between 4 and 5 per cent. at Poona in Group IX. Kherwara in Group VIII, which has usually been highest in this percentage list, came only third in 1897. There was not a single case in the whole European army of India. This great contrast is probably due to the different customs of Europeans and natives as regards bathing and water-drinking.

Suicide.

69. During the ten years 1886—95 there were 212 cases of suicide, or an average of about 21 per annum. There were 25 in 1897; of which 14 were by gun-shot, 3 by drowning, 3 by opium poisoning, 2 by arsenical poisoning, 2 by hanging, and 1 by dhatura poisoning. The following table shows the percentage distribution of cases of suicide in 1897, according to age:—

Period.	Cases of suicide according to age—percentages.							
	Under 20	20—24	25—29	30—34	35—39	40 and over.	Total.	Total cases.
1886—95 . . .	9	42	23	15	8	4	=100	212
1895	10	30	15	20	15	10	100	20
1896	6	50	19	6	19	...	100	16
1897	4	48	24	12	8	4	=100	25

the next the percentage distribution according to service :—

Period.	According to service—percentages.						
	1st and 2nd years.	3—6	7—10	10 and over.	Total	Total cases.	Remarks.
1886—95 . . .	25	33	16	25	=100	212	
1895	30	15	20	35	=100	20	
1896	6	50	19	25	=100	16	
1897	20	36	16	28	=100	25	

and the next the percentage distribution according to season :—

Period.	According to season—percentages.					
	January to March.	April to June.	July to September.	October to December.	Total.	Total cases.
1886—95 . . .	25	26	25	23	=100	212
1895	15	15	40	30	=100	20
1896	37	19	19	25	=100	16
1897	24	16	28	32	=100	25

Papers and Books referred to in Section III.

For explanation of abbreviations see end of preceding section.

(1) I. M. G. of August 1898, page 309.
(2) L. of 21st May 1898, page 1433; B. M. J. of 28th May 1898, page 1423; N., Volume 58, page 86.
(3) China, Imperial Maritime Customs, II.—Special Series : No. 2, Medical Reports, for the half-year ended 30th September 1897,54th Issue.
(4) L. of 16th October 1897, page 969, a paper read by Suzuki at the Moscow International Congress, 1897.
(5) L. of 10th September 1898, page 717.
(6) B. M. J. of 15th January 1898, page 147, Dr. Seymour Taylor.
(7) Army Medical Department Report for 1895, page 394; a *résumé* of the paper is given by Buchanan in I. M. G. of October 1898, page 391.
(8) Fermi and Montesano in C. B. XXIII, pages 1, 59, 117, and quoted in B. M. J. of 1st October 1898.
(9) Powell in I. M. G. of December 1898, page 441.
(10) The same officer in I. M. G. of May 1898, page 161.

SECTION IV.

JAILS OF INDIA.

India.

70. The drought, with resulting famine, continued into the first-half of 1897 from 1896, was followed, as stated in Section I, pages 7 and 8, by a retarded but copious and well-distributed monsoon. In the period of drought cholera was prevalent here and there; while after the onset of the rains cholera, malaria, and dysentery attacked the people weakened by want of food, and found them an easy prey. Naturally, the health statistics of prisoners, and especially the death-rate, were unfavourably affected :—

Year.	Average strength.	RATIO PER 1,000.									
		Admissions into hospital.	Constantly sick.	Deaths from							
				Cholera.	Remittent fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis Pulmonalis.	Anæmia and Debility.	All causes.
1886-95* .	960,073	1,097	39	2·74	1·49	6·80	2·82	5·85	2·50	2·52	32·20
1896* . .	110,186	983	41	1·27	1·07	5·91	1·98	5·27	3·08	1·42	27·68
1897* . .	118,107	1,045	41	3·94	1·08	11·07	3·17	5·19	3·02	2·35	38·75

* Excluding subsidiary jails.

The chief causes of admission to hospital were ague, dysentery, abscess, etc., and diarrhœa. Among the diseases with raised admission rates were cholera, ague, scurvy, debility and dysentery; while the rates from influenza, remittent fever, simple continued fever, tubercle of the lungs, and respiratory diseases were lowered. Ague caused 36 per cent. of the total sickness, and bowel complaints 17 per cent.

The chief causes of death were dysentery, pneumonia, cholera, and diarrhœa. Among the diseases with increased mortality were cholera, dysentery, enteric fever, debility, diarrhœa, and gangrene. Among those with lessened mortality were tubercle of the lungs and pneumonia. Dysentery caused 29 per cent. of the total deaths, pneumonia 11 per cent., and cholera 10 per cent.

Proportion of prisoners in population.

71. The following statement shows for each administration, except the Andamans, the proportion of prisoners in 10,000 of the population. Some of the prisoners of each province have been transported to the Andamans, though in the case of Bombay such transportation was restricted on account of plague; and these are necessarily excluded from the calculations, so that the ratios are all somewhat too low :—

Administrations.	Period.	General population according to census of 1891.	Prisoners.		
			Average number.*	Proportion per 10,000 of population.	Deaths per mille of average strength.*
Burma	1896	7,605,560	14,460	19·0	18·19
	1897		13,435	17·7	24·12
Assam	1896	5,476,833	1,534	2·8	50·85
	1897		1,500	2·7	48·67
Bengal	1896	71,346,987	17,495	2·5	28·64
	1897		19,548	2·7	35·04
North-Western Provinces and Oudh.	1896	46,905,085	32,984	7·0	28·83
	1897		36,254	7·7	35·44
Punjab	1896	20,866,847	12,021	5·8	15·64
	1897		12,968	6·2	16·19
Bombay . . .	1896	18,901,123	8,256	4·4	31·98
	1897		9,385	5·0	35·38
Berar and Secunderabad	1896	2,897,491	1,432	4·9	25·14
	1897		1,898	6·6	34·77
Central Provinces . .	1896	10,784,294	5,583	5·2	72·36
	1897		7,101	6·9	134·98
Madras	1896	35,630,440	9,584	2·7	19·51
	1897		10,312	2·9	47·32

* Including subsidiary jails. The death-rates of the free population are given in the Appendix to Section V.

72. The following table compares the ten administrations with each other and the present of each administration with its past :—

Administrations.

	Year.	Average strength.	RATIO PER MILLE.*										
			Admissions.	Constantly sick.	Deaths from								
					Cholera.	Remittent fever.	Dysentery.	Diarrhœa.	Respiratory diseases.	Phthisis Pulmonalis.	Anæmia and Debility.	All causes.
Andamans	1886-95	114,148	1,743	57	...	4·50	7·94	2·66	3·93	3·88	3·14	33·89
	1896	10,520	1,350	46	...	2·19	6·08	1·43	2·28	3·80	1·43	25·29
	1897	10,590	1,674	50	...	2·83	9·35	1·13	3·12	4·53	1·13	27·20
Burma	1886-95	110,408	939	43	6·04	1·32	7·92	2·32	3·60	3·12	2·00	36·56
	1896	14,460	759	35	·55	·62	2·97	·83	2·77	4·50	·28	18·19
	1897	13,438	596	29	5·21	·52	5·21	1·71	2·23	2·46	·52	24·12
Assam	1886-95	11,550	1,758	58	5·19	1·99	14·37	7·71	5·54	1·30	4·42	52·90
	1896	1,273	1,034	53	1·57	3·14	13·35	6·28	5·50	3·14	6·28	56·56
	1897	1,233	1,028	52	5·68	·81	9·73	4·06	3·24	...	2·43	46·23
Bengal	1886-95	150,931	1,180	41	3·70	1·46	10·42	2·90	4·54	3·35	1·58	36·06
	1896	16,542	1,221	40	3·75	1·57	7·38	1·15	3·32	3·14	1·27	29·20
	1897	18,343	1,045	37	3·27	·87	10·47	1·96	4·47	3·43	·87	34·24
N.-W. P. and Oudh.	1886-95	251,465	792	37	1·70	·65	5·60	2·40	6·02	1·96	2·06	27·54
	1896	32,830	892	51	·49	·73	4·75	2·38	7·74	2·47	2·50	28·82
	1897	35,890	1,012	50	1·28	·53	9·17	3·15	6·07	2·48	4·07	35·44
Punjab	1886-95	115,378	1,667	38	1·59	1·18	3·90	2·21	11·42	2·10	·61	30·23
	1896	11,894	1,234	31	...	·67	1·68	·67	4·29	1·85	·17	15·64
	1897	12,785	1,336	31	...	1·02	2·66	1·17	5·00	2·11	·63	16·35
Bombay	1886-95	68,265	757	28	1·48	1·74	3·56	3·56	9·10	1·74	2·12	30·18
	1896	7,092	895	35	3·67	1·97	3·24	2·82	9·87	2·26	·85	33·56
	1897	7,767	840	29	5·28	3·22	3·22	3·60	8·75	2·96	·51	37·21
Berar and Secunderabad.	1886-95	11,539	756	22	·69	·95	2·08	1·13	5·46	1·13	·95	20·11
	1896	1,432	594	18	1·40	...	·70	·70	7·68	·70	4·89	25·14
	1897	1,898	551	17	·53	·53	6·32	1·58	6·84	1·58	4·21	34·77
Central Provinces.	1886-95	43,798	936	31	4·73	1·21	11·39	5·23	5·75	1·94	3·36	42·65
	1896	5,583	1,112	41	3·94	1·79	32·60	10·21	8·06	5·37	2·15	72·36
	1897	7,401	1,233	65	4·19	1·49	64·72	18·65	10·13	4·86	9·73	134·98
Madras	1886-95	78,363	723	27	5·32	·40	4·85	3·28	2·79	1·99	2·31	29·12
	1896	8,120	688	27	·25	...	2·83	...	2·71	3·45	...	20·81
	1897	8,349	831	33	25·03	·36	6·47	...	2·99	4·19	·24	52·82

* Excluding subsidiary jails.

The prisoners of the Central Provinces, Madras, Burma, Berar, and the North-Western Provinces and Oudh were more unhealthy than in the previous year.

In 1897 the three most unhealthy administrations were, in order, the Central Provinces, Assam, and the Andamans, and the three most healthy were, in order, Berar, Burma, and the Punjab.

As compared with the decennial ratios, cholera mortality was increased in Assam, still more in Bombay, and most of all in Madras ; dysentery mortality was increased in the Andamans, Bengal, the North-Western Provinces and Oudh, more in Madras, still more in Berar, and most of all in the Central Provinces ;

diarrhœa mortality was increased in the North-Western Provinces and Oudh, Bombay, Berar, and especially in the Central Provinces. Mortality from respiratory diseases was increased in the North Western Provinces and Oudh, Berar, Madras, and still more in the Central Provinces; phthisis mortality rose in all the provinces except Burma and Assam, and more especially in the Central Provinces and Madras; and the total mortality increased in the North-Western Provinces and Oudh, Bombay, still more in Berar, still more in Madras, and most of all in the Central Provinces.

With regard to the absence of diarrhœa mortality in Madras, the explanation given in paragraph 59 may be consulted.

It will be noticed in the above table that the Punjab death-rate is not only the lowest of the administration rates, but is also the most favourable as compared with its decennial ratio; while in both respects the Central Provinces death-rate is its opposite. The difference between the two rates is nearly 1·19 per mille per annum.

The use of prophylactic doses of febrifuges is extending, but the actual distribution of the drugs to the prisoners requires more careful supervision.

In Table XL it is seen that the Andamans had the highest death-rate from tubercle of the lungs; Burma the lowest from respiratory diseases other than pneumonia; Assam the highest from ague and the lowest from tubercle of the lungs and pneumonia; the Punjab the lowest from dysentery; Bombay the highest from remittent fever; Berar the highest from respiratory diseases other than pneumonia, and from hepatic abscess; the Central Provinces the highest from pneumonia, dysentery, diarrhœa, debility, gangrene, and "all causes"; Madras the highest from cholera, small-pox, enteric fever, and the lowest from remittent fever.

In each hundred of the total deaths the proportion of remittent fever and of tubercle of the lungs was greatest in the Andamans; of intermittent fever in Assam; of pneumonia in the Punjab; of dysentery and diarrhœa in the Central Provinces; and of cholera in Madras.

Andamans.

73. The Senior Medical Officer reports that the meteorological conditions of the year were peculiar, and unfavourable to the health of the convicts. Heavy rain in May was followed by a break of a month, and then by an unusually abundant monsoon, the consequence being prevalence of fever and dysentery. Even the women prisoners suffered severely from the fever, though they worked mostly under shelter, drank boiled water, and took prophylactics. He concludes as follows:—

> In recent years many important improvements have been made which are likely to favourably affect the health of the convicts. Two large hospitals have been built in excellent sites at Bamboo Flat and Viper; wells and tanks have been more carefully protected; and a Larymore boiler has been installed in every important station. There is also a great improvement in the rice supply, which is now obtained from Rangoon, and is much superior to the coarse rice formerly obtained from Bengal. The Settlement gardens have been considerably developed, and the vegetable supply much improved.

Burma.

74. The decrease in average annual strength was mainly due to the release of convicts in honour of the Queen-Empress' Jubilee. Nothwithstanding the diminution in the number of prisoners, every jail in the province, except those at Thayetmyo, Toungoo, Shwebo and Tavoy, was overcrowded at one time or other during the year; while in fifteen, including the central jail at Bassein, overcrowding was chronic, though in the majority of cases not to any great extent. The Inspec-

tor-General complains that the death-rates in the Burma jails are raised by the deportation to other provinces of the healthiest prisoners, and the return to their native land of such of the deported prisoners as lose their health. The jail at Moulmein has been notoriously unhealthy for many years, and is being reduced from a central to a district jail.

Assam.

75. The decrease in average strength was partly due to jubilee releases. The reduction of the death-rate by over 10 per mille of strength must be considered creditable in view of the facts that scarcity was prevalent, that the general health of the provincial population was bad, that ten of the prisoners lost their lives in the earthquake, and that many of the prisoners were exposed for a time to unusual hardships consequent on the demolition of buildings by the earthquake. The constantly sick and admission rates were also slightly reduced. These favourable results are attributed to an improved dietary, better clothing, restrictions placed on extramural labour, and the prophylactic use of quinine and iron.

Bengal.

76. The special causes unfavourably affecting the health statistics of the jail inmates in Bengal were, according to the Inspector-General, the impoverished physical condition, from famine and privation, of the prisoners on admission to jail; the prevalence and severity of malarial fevers in the last three months of the year; the increased number of prisoners admitted with short sentences for offences connected with the scarcity; the release at the jubilee of a large proportion of prisoners approaching the end of their sentences, health being usually better at the end than at the beginning of jail residence; the withdrawal from the province, for war or plague service, of a great number of its most experienced tmedical officers, who in previous years had done much to improve the health of he prisoners. In many cases, unfortunately, the sanitary improvements which were being carried out in the jails were hindered on account of diversion of funds to meet the expense of repairs rendered necessary by the earthquake of the 12th June 1897. The damage caused by the earthquake deprived several jails of a portion of their permanent accommodation, which could ill be spared, because there was an abnormal increase in the jail population, producing overcrowding from time to time in many of the jails. The trial of the Pasteur filter in several of the jails has not yet been sufficiently extensive in time to warrant the drawing of conclusions.

North-Western Provinces and Oudh.

77. Although 8,267 prisoners were set at liberty on account of the Queen-Empress' Jubilee, the average annual strength was considerably in excess of that of 1896, and most of the jails were overcrowded. The general state of the public health and the meteorological conditions of the year were unfavourable to the prison population. Scarcity and famine, consequent on the continued drought of 1896, had so deteriorated the public health that a great proportion of the prisoners admitted were in an enfeebled condition. This is strikingly shown by a comparison of the death-rate among the convicts in jail for not more than six months, 44·4 per mille, with 29·29, the rate among the remainder. Such prisoners were ill-fitted to contend against the malarial influences engendered by the abundant monsoon rainfall of 1897, and the mortality of the last four months of the year was nearly as great as that of the earlier eight months.

78. Notwithstanding the release of 1,846 prisoners on account of the jubilee, there was an increase in the average annual strength of the Punjab jails. The mortality of the second half of the year was much greater than that of the first, a reversal of what had occurred in 1896, the falling-off in the general health being attributed by the Inspector-General to the prevalence of malarial fevers consequent on heavy rainfall succeeding prolonged drought. No less than 50 per cent. of the deaths in 1897 occurred among prisoners who had been less than six months in jail, "a fact," says the Inspector-General, "plainly indicating the necessity for giving special consideration to the convict on admission to jail, in respect to all matters affecting his health."

Punjab.

79. Owing to the failure of the crops in 1896 in certain districts, and the consequent general height of prices, there was a rise in the average annual strength; and a considerable number of the newly-admitted prisoners were in a somewhat weakly condition from lack of food. As no convicts could be sent to the Andamans because of the plague, the only considerable relief afforded to the strain on the accommodation was the release of 1,603 prisoners on the occasion of the jubilee. All the jails, except those at Hyderabad, Kurrachee, and Karwar, were overcrowded at some time during the year, and in all but eight overcrowding was chronic. In some cases the overcrowding was very excessive. The restrictions imposed in consequence of the presence of plague rendered the customary transfers more than ordinarily difficult; but past experience has shown that it would be dangerous to agree with the Inspector-General that overcrowding is more apparent than real, because work-sheds are used as dormitories. No population can be expected to remain healthy if its members have to sleep in the same rooms in which they work.

Bombay.

80. The effect of scarcity, famine, high prices, and immigration from the Central Provinces greatly augmented the criminal population in the Hyderabad Assigned Districts. All the jails were overcrowded; but it is satisfactory to note that there was no outbreak of epidemic disease in any one of them, and no excessive mortality. The Inspector-General of Prisons reports that, with the best results, the drinking-water in the Buldana jail was from June to the end of September boiled before being issued, having been purified and cleared by the use of alum and permanganate of potash.

Berar.

81. Famine prevailed in nearly all the districts in the Central Provinces, and in spite of every effort made to exclude from the jails unfortunate wretches whom privation had driven to crime, the jails had to serve as poor-houses for a large number of criminal paupers. A common form of crime in the most severely affected districts was the theft of cattle to be killed and eaten by the starving thieves. Such an offence could not be treated as a petty theft, and the condition of the offenders too often precluded the infliction of corporal punishment in lieu of imprisonment. Every prison in the province was overcrowded, and in some instances the overcrowding was very excessive. Every endeavour was used to mitigate the effects of overcrowding by the utilisation of worksheds as dormitories, by the acquisition of neighbouring buildings, and by the erection of temporary sheds. Relief of the district jails by transfers to the central jails was possible to only a small extent, as the latter were also overcrowded. Fortunately

Central Provinces.

material relief was afforded by the release on the 22nd of June of 1,645 prisoners on account of the jubilee, and, by the Chief Commissioner's orders, of 923 short-term prisoners before the termination of their sentences. The Chief Commissioner calls attention to the effect of these releases on the statistics relating to sickness and death. The Inspector-General of Prisons says :—

> The reasons for the variations between jail and jail, and for the comparatively low provincial rate of admission to hospital, appears to be that some medical officers prefer treating prisoners with slight ailments, or in an anæmic condition, outside the hospital, to which they only admit prisoners suffering from severe ailments, or presenting suspicious symptoms, or incapacitated for movement. This was perhaps a wise course under the special circumstances of the year; indeed, in some jails it was a necessary course, as the hospitals were overcrowded.

The practice described should not make any difference in the admission rates, because the orders of Government are that all cases treated, whether in or out of hospital, should be entered as admissions in the hospital register.

Coorg.

82. There is only one jail in Coorg, that of Mercara. There was a fall in average strength due to jubilee releases. Coorg is not shown in Table XL, but the statistics of Mercara will be found in Tables XLII and XLIII.

Madras.

83. The occurrence of high prices throughout the presidency and of famine in some areas was followed by a large increase in jail population. There was an increased sick rate and a very largely increased death-rate, the latter being mainly due to epidemics of cholera in the Rajamundry and Coimbatore jails. The death-rate of 1897, however, compares favourably with the death-rates of the last famine years, 1877 and 1878. The report of the Inspector-General of Prisons affords internal evidence that many improvements in the sanitation of the jails are still possible; and it may be hoped that the investigation which followed the outbreak of cholera at Rajamundry will lead to their introduction.

Geographical Groups.

84. The next table institutes a comparison between the geographical groups, and between the present of any group and its past:—

		Ratio per 1,000 of average strength.												
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
		Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Sub-Himalayan.	North-West Frontier, Indus Valley, and North-Western Rajputana.	South-East Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hills.	India.
1886-95	Constantly Sick	52·6	35·8	57·9	45·4	36·3	36·9	32·6	35·5	31·2	29·8	24·7	39·1	39·1
	Deaths—Cholera	2·57	5·16	5·46	3·49	2·71	1·56	·30	1·68	3·20	1·63	5·66	1·13	2·74
	Deaths—Dysentery	8·46	5·07	14·30	10·35	7·55	4·14	2·85	4·12	7·13	6·83	3·68	11·65	6·80
1896	Constantly Sick	42·0	30·4	54·2	45·3	49·6	36·6	30·6	36·4	38·1	37·2	27·3	34·3	40·8
	Deaths—Cholera	·25	·62	1·62	2·62	1·82	·36	...	...	2·65	11·17	·27	...	1·27
	Deaths—Dysentery	4·77	2·26	12·94	7·91	5·75	1·95	1·09	3·83	18·99	8·85	3·14	1·69	5·91
1897	Constantly Sick	41·8	23·2	52·8	37·2	48·9	36·0	33·2	39·3	47·4	34·1	33·5	28·2	41·2
	Deaths—Cholera	2·27	5·64	5·87	1·18	2·90	...	...	...	2·78	16·63	27·00	4·98	3·94
	Deaths—Dysentery	7·78	3·90	10·06	9·62	10·42	4·00	2·09	8·76	39·53	6·65	6·88	3·32	11·07

In agreement with the decennial average, Assam had the highest constantly sick rate; but Burma Inland, instead of Southern India, had the lowest. Cholera mortality was high as compared with the decennial averages in six

groups, especially Southern India, Western Coast, and the Hills; and low in six, especially Bengal-Orissa. As compared with the decennial ratios, dysentery mortality was reduced in eight groups, especially the Hills, but much increased in the Deccan, Central India, and Southern India. Most groups suffered increase, and some great increase, of both cholera and dysentery mortality in 1897 as compared with 1896.

In Table XLI the statistics of the geographical groups as regards prisoners in 1897 have been placed side by side for comparison. Burma Coast had the highest admission rate from respiratory diseases other than pneumonia, from abscess, etc., and from "all causes," and the lowest from pneumonia; Burma Inland the lowest from ague, respiratory diseases other than pneumonia, scurvy, and "all causes"; Bengal-Orissa the highest from simple continued fever and dysentery; Gangetic Plain the highest from influenza and small-pox; Upper Sub-Himalayan the highest from ague and spleen diseases; Indus Valley the highest from pneumonia, and the lowest from tubercle of the lungs and dysentery; the Deccan the highest from scurvy and debility; Western Coast the highest from enteric fever and remittent fever, and the lowest from abscess, etc., Southern India the highest from cholera and tubercle of the lungs; the Hills the highest from diarrhœa, and the lowest from debility.

The percentage in total admissions of fevers was highest in the Indus Valley and the Upper Sub-Himalayan Tract; of bowel complaints in Bengal-Orissa and Assam; of respiratory diseases in the Western Coast and Central India.

Individual Jails.

85. Some details regarding the sanitary defects in the most unhealthy jails, and regarding improvements effected or recommended, will be found in Table XLIV. On account of its persistent unhealthiness the Moulmein central prison is being reduced to a district jail. The sickness and mortality ratios of all jails may be studied in Table XLII.

Principal Diseases.

86. The sickness and mortality in India as a whole, in the various administrations, in the geographical groups, and in individual jails, having been studied, it now remains to notice a few of the more important diseases which affected the prisoners.

Influenza.

87. The following table shows the progress of the influenza epidemic from its first outburst in 1890. There has been a decrease of the disease every alternate year :—

Years.	Number of admissions into Hospital in each month.												Total.	Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February	March.	April	May.	June.	July.	August.	September.	October.	November.	December.			
1890 . .	1	16	377	3,808	2,341	796	232	6	1	...	1	1	7,580	78·6	·67
1891 . .	3	152	91	19	32	119	459	285	266	72	19	387	1,904	18·9	·29
1892 . .	539	806	2,947	1,059	223	89	60	65	38	12	7	6	5 851	56·7	1·26
1893 . .	9	38	109	114	106	47	12	11	34	58	76	36	650	6·4	·09
1894 . .	733	545	758	1,415	513	28	5	1	19	42	59	63	4,181	41·0	·43
1895 . .	69	151	619	288	84	64	88	9	145	192	38	411	2,158	20·3	·15
1896 . .	853	1,357	1,232	293	32	10	5	1	270	54	15	19	4,141	37·6	·60
1897 . .	49	51	86	162	85	8	37	5	29	274	187	14	987	8·4	·21
Total .	2,256	3,116	6,219	7,158	3,416	1,161	898	383	802	704	402	937	27 452	32·8	·46

In the year 1897 Burma Coast, Assam, Central India, Western Coast, and the Hills escaped. Only 19 jails were affected against 95; and only five of them had not been attacked in the previous year. The incidence of the disease may be studied in Table XLV, and the ratios of sickness and mortality will be found in Table XLII. Cases occurred in every month of the year, but the greatest monthly numbers were in October, November and April, and the last in August and June. The greatest numbers of cases occurred at Lucknow (central and district) and Fatehgarh (central). In Table XLV it may be seen that in some jails the outbreak was short and compact, in others long drawn out, while in one or two there were two distinct outbreaks. "In the beginning of the year," says the Inspector-General of Prisons, Bombay, "influenza made its appearance among the prisoners of the Sind Gang, and within about twenty days twelve prisoners were carried off by the disease."

Cholera.

88. There was a great increase of both morbidity and mortality from cholera, the admissions rising from 253 to 959, the admission ratio from 2·3 to 8·1, the deaths from 140 to 465, and the death ratio from 1·27 to 3·94 (Table XLII). Only in the administrations of Bengal and Berar was there decreased mortality; while there was increase in Burma, Assam, the North-Western Provinces and Oudh, the Central Provinces, and Madras, the last having by far the highest ratio. The incidence of the disease may be studied in Table XLVI. There was no cholera in Indus Valley, and only one case in the Upper Sub-Himalayan and in Central India, among groups; and none in the Punjab, and, as usual, the Andamans, among administrations. For the decennium 1885—95, the Indus Valley had the lowest ratio among geographical groups, and Southern India the highest, while among administrations, the Andamans were, as usual, completely exempt. The months of maximum prevalence in 1897 were April, March, and July, but only in January were the jails of India completely free from the disease. The table given below shows that it is usual for the maximum to be reached in July or August, 1897 being one of the two exceptional years in the table. The most severe outbreaks were those at Coimbatore, Rajamundry, Thana, and Moulmein. The circumstances attending some of the chief outbreaks will be noted in Section VI. The following are quotations from the reports of the Inspectors-General of Prisons of the provinces named:—

Burma.—Before cholera appeared in the Myingyan and Minbu jails, it had been customary for many months to boil all drinking water, and permanganate had been freely used in wells, or had been mixed with the drinking water prior to use.

Bengal.—The precautions taken at Hazaribagh to prevent the disease spreading to the jail were the formation of a segregation camp outside for new arrivals and under-trials, issue of boiled water to under-trials for use while at court. Sulphuric acid was given to all prisoners every morning. Drinking water reservoirs were frequently washed with permanganate of potash, and wells were disinfected. After the first cases the source of supply of water was changed twice. The wards were fumigated, scraped, and lime-washed. One hundred and eighty prisoners were inoculated. No prisoners so inoculated were attacked. There was no doubt as to the nature of the disease, for the comma bacillus was cultivated in two or three instances. Under-trial prisoners were most severely affected.

Bombay.—As in 1896, so in 1897, cholera is mainly responsible for the heavy mortality in the Thana prison. In July an epidemic of cholera, which lasted about 27 days, made its appearance in the Thana prison, twenty-four prisoners being carried off by the disease. Two hundred and ten prisoners were removed to the new and unoccupied buildings of Nowpada Lunatic Asylum, and no cases occurred among them.

The outbreak in the Thana jail merits special attention, not only on account of its severity, but because there has been cholera in the jail in five of the last ten years, on three occasions in severe epidemic form. Some account of the sanitary defects of the jail will be found in Table XLIV. If the water is not above suspicion, it should be boiled.

Madras.—The use of segregation sheds outside jails commenced with 1895, since when cholera has appeared in central and district jails on 20 separate occasions. These 26 outbreaks assumed an epidemic form on five occasions, one of which was very slight, involving 6 cases. For practical purposes there have been four epidemics in 26 occurrences of cholera. In the seven years prior to 1895, 41 outbreaks of cholera occurred, of which 31 developed into epidemics. Of the 31 epidemics, 11 epidemics were slight and 20 severe. It will thus be seen that the percentage of severe epidemics to separate outbreaks in the seven years ending 1894 was just under 50 per cent. In those years there was one severe epidemic in every two occasions on which even an isolated case of cholera occurred in a jail. During the three years in which isolating huts have been used, 26 separate occurrences of cholera have produced four severe epidemics, or a proportion of one severe epidemic to every 6½ outbreaks of cholera. These figures go far to support the view that a marked advance in the task of combating cholera has been made. Heavy as the mortality from cholera was in 1897, it might have been infinitely heavier had every separate occurrence of the disease ended in an epidemic, as happened in 1892.

Isolation-sheds are, of course, useful for the segregation of sporadic cases, but they may be a grave danger at the beginning of an epidemic, if their existence leads to delay in moving the prisoners out of the jail into camp. If the cause of the cholera is in the jail, it is clearly futile to remove prisoner after prisoner to a segregation shed. Until the cause of an outbreak can be isolated and destroyed, the only remedy is to move the prisoners away from it until it shall cease to be active.

The following table shows that in respect of cholera 1897 compares unfavourably with all the preceding nine years, except 1892. It also shows that, taking the ten years as a whole, July was the maximum, and February the minimum, month for cholera :—

Years.	Number of admissions into hospital in each month.												Total	Admitted per 1,000 of strength.	Died per 1,000 of strength.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			
1888 . .	1	14	56	123	51	74	154	172	11	5	23	14	698	7·8	4·65
1889 . .	26	4	24	71	118	98	300	65	18	13	3	14	754	7·9	4·48
1890 . .	2	5	5	3	1	15	54	51	37	48	48	2	271	2·8	1·44
1891 . .	28	4	2	23	43	30	52	185	24	17	119	42	569	5·6	3·09
1892 . .	127	45	81	58	33	81	239	143	23	2	53	12	897	8·7	4·73
1893 . .	6	2	15	39	22	6	14	8	2	3	10	40	167	1·6	·83
1894 . .	16	5	6	13	35	7	118	124	26	19	2	4	375	3·7	2·29
1895 . .	2	1	1	8	24	6	27	41	6	2	12	2	132	1·2	·80
1896 . .	2	3	14	42	22	47	68	37	4	5	4	5	253	2·3	1·27
1897 . .	...	10	253	289	44	50	145	96	55	4	7	6	959	8·1	3·94
Total .	210	93	457	669	393	414	1,171	922	206	118	281	141	5,075	5·0	2·73

Small-pox.

89. To small-pox in 1896 had been due a higher morbidity and mortality than in any year since 1889. In 1897 the ratios were nearly the same as in 1896, morbidity a little lower, mortality

a little higher. There were 124 admissions with 14 deaths against 116 with 11 in the year preceding; but the average number of prisoners was greater in 1897. The distribution of the small-pox of 1897 in geographical groups, administrations, and individual jails, is displayed in Tables XL—XLIII. Groups III, VIII, and XII escaped, as III did in the preceding year also; and the highest admission ratios were those of Gangetic Plain, Deccan and Indus Valley. The administrations of the Andamans* and Assam, as in the previous four years, escaped; and the highest ratios were those of the Central Provinces and the North-Western Provinces and Oudh. The greatest actual numbers of cases were at Sambalpur, Allahabad (central), Sitapur, and Shikarpur; and the highest ratio at Sambalpur. In the ten-year period, 1887—96, and in most of the individual years of the period, the great majority of cases occurred in the months of February, March, and April, March being in every year, except two, markedly the maximum month.

Intermittent Fever.

90. Of the total number of admissions ague furnished 36 per cent., against 28 per cent. in the preceding year. Table XLIX shows that October was, as usual, the most malarious month. The ratios of sickness will be found in Table XLII. There was a considerable increase in ague in 1897, and in this increase, which was greatest in the Indus Valley and Upper Sub-Himalayan, all the groups, except Burma Inland, Bengal-Orissa, the Deccan, and the Hills, participated. This change was no doubt connected with the abundant monsoon following drought.

The prevention of fevers by the regular administration of prophylactics was very extensively tried, and is generally considered to have been successful; but, except in a few cases, the accounts in the reports are somewhat meagre. The following is offered (in a fuller form) as a striking example of the efficacy of quinine and iron by Surgeon Major Macnamara, who therein contrasts the admission rates from fever (ague) in the Tezpur jail during the malaria months of two periods, during the first of which no antiperiodic, during the second of which a quinine and iron mixture, was given :—

Months.	1894+1895.		1896+1897.		Ratio per mille per annum.†		Increase per mille per annum.	Decrease per mille per annum.
	Strength.	Admissions	Strength.	Admissions.	1894+1895.	1896 + 1897.		
August . .	452·66	48	403·48	11	1,248·5	321·0	...	927·5
September .	443·35	70	460·47	12	1,921·0	317·1	...	1,603·9
October . .	445·95	47	468·28	12	1,240·9	301·7	...	939·2
November .	448·49	37	453·59	14	1,003·7	375·5	...	628·2
Total .	1,790·45	202	1,785·82	49	1,350·2	328·4	...	1,021·8

† Changed from "per 1,000 per mensem."

There seems to be great divergence in practice in the prophylaxis of malarial fever in the different jails, and in consequence the results obtained vary, and the opinions of medical officers regarding the efficacy of the preventive are conflicting. Malarial fevers can be in some measure prevented; but efforts in this direction, if they are to be of any use at all, must be scientifically directed

* The last admission in the Andamans was in 1885.

and systematically made. Results should be carefully recorded, so that there may be no necessity to depend upon general impressions regarding either the nature of the fevers or the effect on them of the preventive methods employed. The Senior Medical Officer, Port Blair, says :—

In connection with the prevalence of malarial fever, sulphate of cinchonidine was daily administered to 4,600 convicts in eight different stations from 1st May till September; but in ten other stations, where there were 2,700 convicts, it was found impracticable to do so owing to the difficulty of supervision. The comparative statistics of the different stations do not show that the prophylactic conferred any immunity from attacks of malarial fever. Prophylactics have been used in this Settlement for the last 15 years in unhealthy stations, and for the last two years they have been in use in every station where it was possible to supervise the administration of them. Some years ago, after various experiments, I came to the conclusion that prophylactics in no way diminished the admissions from fever. My experience during the last, very malarious, year, when prophylactics were administered on a large scale, confirms that opinion.

The Inspector-General of Prisons, Bengal, reports in a contrary sense :—

The prophylactic treatment of malarial disease by the sulphate of cinchonidine combined with iron has been continued. There can, I think, be no doubt that its action is beneficial. It lessens the severity of malarial fevers and the tendency to other diseases generally associated with the malarial condition. In small doses a tonic effect and a bracing influence on the bowels has been noticed. . . . Medical officers are almost unanimous in the opinion that if it does not lessen the incidence of malarial fever, it diminishes the duration and severity of the pyrexia.

The Inspector-General of Prisons, Punjab, was disappointed with the results obtained, but is of opinion that the supervision of the administration of the drugs in use was not always sufficiently complete. The Madras Inspector-General would prefer to entrust the investigation to two or three selected officers, in order to minimise the risk of error.

Remittent and Simple Continued Fevers.

91. Details with regard to remittent and simple continued fevers will be found in Tables XLII, XLVIII, and L. Morbidity from both forms of fever diminished, and the death-rate from the former was only very slightly increased. The maximum months for remittent fever in 1897 were August, January, and February; whereas in 1896 the maximum month had been May. It may be that the remittents of the dry season are different from those of the rains; and some medical officers actually state that the cases returned by them as remittent fever in the hot weather were considered by them to have been due to exposure to the sun. With a view to the better investigation of fevers, instructions were issued to medical officers of jails to furnish details of the etiology and symptoms of all cases returned by them as remittent fever; but the positive value of the reports received is not great. The chief result is to show that the remittent fever of the jail returns is a comprehensive heading, including, besides malarial fever as the chief item, also some cases of specific fever, of symptomatic fever, of sun fever, of undiagnosed fever. The medical officer of the Rangoon central prison says straight out that the four cases were not really remittent fever, but that that was the only heading under which he could enter them. It would in some respects certainly be an advantage if the official nomenclature of diseases contained such a heading as "Fever, not classified."

Enteric Fever.

92. Throughout the jails of India there were returned 34 admissions from enteric fever with 15 deaths, the numbers in the preceding year having been 21 and 7. No jail had more than 2 cases, except Nagpur (central) and Mangalore, the former return-

ing 3 and the latter 15. The *post-mortem* appearances recorded were on the whole fairly characteristic, though in two cases the spleen was normal, and in one it is noted that very few of the ulcers were on the Peyer's patches. None of the reports throw any real light upon the origin of the cases. At Insein the prisoner attacked had been one year and nine months in jail, and the medical officer finds it impossible to explain either why that man was affected or why no others were. At Nagpur the first case occurred on the 1st April in the north octagon, and the second and third cases on the 7th June and 22nd July respectively in different barracks of the south octagon; and, though both the milk and the water were suspected, it is acknowledged that there is no certainty in the matter. With regard to the causation of the case at Hyderabad, the only likely factor which suggests itself to the medical officer is the eating by the prisoner of a water-melon, which had been brought in by an outsider. The following is an extract from the somewhat indefinite report on the outbreak in the Mangalore jail :—

> Enteric fever broke out in the jail in the latter portion of September, when it was still raining very heavily. No. 1 well was suspected, and closed for use, with the result that the epidemic subsided. In all there were 15 attacks with 5 deaths . . . How No. 1 well got contaminated it is difficult to say. The first case was, however, an under-trial prisoner for a long time, who was frequently taken out into the town to attend the court. He might have helped himself to water outside, and must have handled, or otherwise contaminated, the No. 1 well, which for years has been the source of drinking-water for the prisoners. In this town enteric fever is generally prevalent during the monsoon or soon after its close. Year after year people suffer, and their discharges are not burnt or carefully buried. They are thrown in the drains, and washed away by rains into drinking-water wells, where it is probable that the typhoid bacilli acquire their fresh virulence.

On the other hand, the Sanitary Officer of South Canara, after remarking that, though enteric fever is endemic in the town of Mangalore, and is more prevalent in the monsoon rains and after their cessation, there was no special outbreak in the town during the period of attacks in the jail, goes on to say :—

> There is no doubt that well No. 1 was the source of contamination, as on its closure the attacks ceased. How the infection of the well was brought about it is difficult to understand, as the area for about 100 yards around is free from any source of pollution. . . . The first case was an under-trial . . He used frequently to be sent for trial to the session's court. He was admitted into hospital for dysentery on 5th September, and on the 26th September for typhoid. I cannot understand his being infected outside the jail, or how he could have contaminated the drinking-water well. He was never put on well work. . . Typhoid has not broken out in the jail for a good many years. This is the most extensive outbreak that has occurred. After carefully going into this outbreak, I fail to account for the source of infection. Undoubtedly No. 1 well was contaminated, but how, cannot be understood.

There are two special points of interest in the above: the unusual acknowledgement of the constant presence as a matter of observed fact of enteric fever in a native Indian city, and the additional instance given of the somewhat close connexion in time between symptoms of dysentery and symptoms of enteric fever in one patient.

Cerebro-spinal Fever.

93. Cases continue to be observed in Europe and America[1] in which the causative *meningococcus intracellularis* is recovered from the fluid obtained by lumbar puncture during life, or from the exudation found on the surface of the central nervous system after death; and Buchanan[2] has reported the finding of the same organism in cases occurring in an Indian jail. Schiff and Heubner[3] found

these microbes of Jaeger also in the nasal cavities of persons not sick of meningitis*—a discovery already paralleled in the case of some other pathogenic microbes.(9)

The *meningococcus intracellularis* has been found (10) to be specially suited for conveyance by the air, as it resists drying. It has been found alive after 80 days in dust, and after six weeks in a pocket-handkerchief.

Cerebro-spinal lesions exactly the same macroscopically and microscopically as those found in connexion with the presence of the *meningococcus* are produced also, not only by the *diplococcus** *pneumoniæ*, but also, it has been discovered,(9) by the *bacillus influenzæ*.

There were 13 cases of this disease with 10 deaths against 7 cases, all fatal, in the previous year. In only two of the cases were the *post-mortem* records satisfactory. All the cases of 1897 occurred in jails of the Bengal administration; and out of 99 cases, 80 fatal, that were diagnosed in the jails of India in the seven years 1891—97, 58, or 58·6 per cent., were in the jails of Bengal. The Bhagalpur jail, with 11 cases, 9 fatal, was the one most affected in 1897; and Patna and Muzaffarpur, with one case each, one fatal, the only others. Previous reports have mentioned the measures adopted to deal with the disease.

Typhus, Relapsing Fever, Plague.

94. Two cases of typhus, both ending in recovery, were reported among the prisoners of India during the year. Both occurred in the Punjab—in the Rawalpindi jail. Relapsing fever was absent in 1897. Plague accounted for 37 cases with 20 deaths, all in jails of the Bombay administration:—

	Admissions.	Deaths.
Bombay House of Correction	33	17
Bombay Common Jail	2	2
Yerrowda Central Prison (Poona)	1	1
Kurrachee District Jail	1	...
	37	20

The Inspector-General of Prisons, Bombay, says:—

Seventeen out of 22 deaths in the House of Correction were due to plague. In the month of June a number of dead rats were found in the carpenter's shop of this prison; and on the 23rd of the same month the first case of plague occurred, the victim being a convict night-watchman who was accustomed to sleep at night, when off duty, in a portion of the above shop. The last case occurred on the 7th February. During the course of the outbreak 33 were attacked, and 17 died. All the cases which occurred were treated in the prison, the tread-mill shed and a portion of the factory sheds being for the time being turned into plague wards . . Two cases occurred in the Common Prison, both fatal: they were sent to the municipal infectious diseases hospital . . In the subordinate jail of Surat there were 11 cases with 7 deaths. All things considered, I think, this department is to be congratulated on having—more especially if the crowded condition of many of our prisons and jails be borne in mind—got off uncommonly cheap. It is my duty to add to the above remarks the further one that the figures which I have given above are a standing testimony to the measures adopted by the superintendents and medical officers to prevent the enemy entering within their gates, or, where he had succeeded in doing so, to drive him therefrom as speedily as possible. In the House of Correction, when the plague made its appearance, volunteers were called for among the prisoners to undergo the process of inoculation with Haffkine's serum; and accordingly 154 prisoners, or about half the prison population, were so inoculated. Of the uninoculated 27—of whom it is right to add that 15 were taken ill before any inoculations had taken place in the prison—were attacked with plague, and 14 succumbed to the disease. Of the inoculated prisoners 6 were attacked, and 3 died. Four of the latter six were taken ill within 24 hours of inoculation, showing, I presume, that they were already in the

* See *Lancet* of 22nd October 1898, page 1048.

clutches of the disease at the time when they underwent inoculation. These figures I will allow to speak for themselves. Two hundred and forty-nine prisoners, or practically the entire prison population, underwent inoculation in the Karrachee prison during the height of the plague epidemic at that station last year. The one prisoner in Kurrachee who was attacked with plague, and recovered, had not undergone inoculation.

Erysipelas and Mumps.

95. In all 164 cases of erysipelas with 18 deaths occurred in the jails of India, against 229 and 21 in the preceding year: 72 in the North-Western Provinces and Oudh, and 49 in the Punjab. The maximum number of cases was 30 in the Allahabad District Jail, the same jail having had 60 in 1896, and 36 in 1895. Some remarks of the medical officer of the jail are recorded in Table XLIV.

Year by year a large number of cases of mumps is returned from the jails of India. During the year under review there were 2,264 cases, against 945 in the previous year. In the North-Western Provinces and Oudh occurred 1,543 cases, and in Bengal 458; the highest numbers in individual jails being 382 a Agra (central), 248 at Benares (central), 199 at Azamgarh, and 197 at Bhagalpur.

Scurvy.

96. In the year under review there was an increase in the amount of scurvy returned, as compared with the preceding year: 310 cases or 2·6 per mille of strength, with 13 deaths, against 115 cases, or 1·0 per mille, with 4 deaths. The ratios and actuals for scurvy will be found in Tables XL—XLIII. Out of the whole number of cases 62 per cent. occurred in the Central Provinces, 13 per cent. in Bombay, and 9 per cent. in Bengal. Again, about 14 per cent. occurred in the Nagpur central prison and the Hoshangabad jail, 13 per cent. at Narsinghpur, and 11 per cent. at Raipur. The Inspector-General of Prisons, Central Provinces, says:—

> It may therefore, I think, be accepted as a foregone conclusion that the scorbutic taint was present in a greater or less degree in all jails. Antiscorbutics were everywhere issued, however, on a liberal scale and comprised meat, pickled limes, lime-juice, mango, amchur, roselle, tamarind pulp, and, in some jails, tamarind sherbet; these being in addition to abundant supplies of vegetables of the better kinds, which were issued daily. I would here mention that, by an order issued some years ago to jail superintendents, the cultivation of one lime-tree per head of the normal population was enjoined. This order has during the year been brought to mind, and jail superintendents instructed to extend the cultivation of lime-trees wherever the number at present falls short of the complement laid down, so that there may be no deficiency in the supply of limes in future.

Tubercle of the lungs and Phthisis Pulmonalis.

97. In Tables XL—XLIII may be seen the ratios and actuals for tubercle of the lungs. In the years 1895, 1896, and 1897, Madras had the highest admission ratio; and in 1897 Assam had the lowest. The highest death-rate was in the Andamans, while in Assam there were no deaths from tubercle of the lungs.

Of the jails with the highest ratios (Table XLII),—Orai, Narsinghpur, Yeotmahl, and Coimbatore; Orai had also a high ratio in 1896.

In the opinion of most pathologists non-tuberculous phthisis pulmonalis, exclusive of that due to the mechanical action of irritating particles, is a rarity. Nevertheless, in the jails* of India, 28 cases with 8 deaths were declared to be non-tuberculous phthisis. It is difficult to understand what is imagined to be the pathology of such cases. However, the diagnosis of the medical officers in charge of the cases has been adhered to in the tables of this report.

* See also section III, paragraph 61.

Taking tubercle of the lungs and phthisis together, the admission and death ratios from phthisis pulmonalis for 1897 are respectively 7·1 and 3·02, nearly the same as the ratios of 1896, which were 7·2 and 3·07.

Pneumonia and other Respiratory Diseases.

98. With the decrease of influenza there was a fall in the pneumonia admission and death-rates. The second table in paragraph 53, Section III, shows the variation of the pneumonia death-rate, with the varying prevalence of influenza from the first year of the epidemic. The same table also displays the fact that in 1897, as in 1896, the prisoners suffered more severely than the European and native troops. Table LI shows that the months of greatest prevalence of pneumonia were January, February, March and December, an indication that cold is a factor in the causation of the disease.[9] In Table XL it may be seen that, as usual, Bombay had a very high death-rate, though in 1897 the Central Provinces had an even higher one; while the Punjab stood fourth. As usual, the Indus Valley, as may be seen in Table XLI, had the highest admission rate from pneumonia, the next in order being the Upper Sub-Himalayan group, Central India, and the Hills. The highest ratios for individual jails may be found from Table XLII. Jessore, Banda, and Sind Gang had admission ratios of over 100 per 1,000 of strength; and 11 other jails had admission ratios over 50 per mille. Most of these fourteen jails will be found mentioned in Table XLIV. The most frequent reasons given by medical officers for unusual prevalence of pneumonia were influenza, famine, and overcrowding. The Inspector-General of Prisons, Bombay, says:—

In the month of December seven prisoners * were carried off in the space of a week by pneumonia in the Sind Gang. This outbreak lasted into January and February. On the occasion of my visiting the Gang in the middle of last February I took with me Surgeon-Captain J. Jackson, then Superintendent of the Hyderabad central prison, as, in view of that officer's marked success in practically banishing pneumonia from the above central prison I was anxious that he and Assistant-Surgeon Kothawalla, the recently appointed superintendent and medical officer of the Sind Gang, should be brought together for the purpose of discussing matters connected with the heavy mortality from pneumonia among the Gang prisoners during the past year. As one result of the conference between the above two officers I have directed that when next cold weather makes its appearance coir mattresses should be issued to the prisoners of the gang. . . . . Pneumonia, that ancient and almost ever-present curse of the prison of Shikarpur, was the cause of 18 deaths. The death-roll in the Hyderabad jail was so extraordinarily small as to claim some notice. Surgeon-Captain James Jackson has long held some very clearly defined opinions regarding the causes of jail pneumonia, his prophylactic against which I may sum up in the words, "lots of fresh air at all times." With the admirable system for the control of the ventilation which is in existence in the sleeping barracks of the Hyderabad central prison the above officer has found himself in a favourable position for carrying out his theories, and, I think I may add, for showing their thorough soundness.

The following table shows the reduction effected by Surgeon-Captain Jackson in the pneumonia ratios of the Hyderabad central prison:—

	Ratios per 1,000 of strength.	
	Admissions.	Deaths.
1891—95	32·3	16·33
1896	40·1	8·92
1897	17·2	1·57

* For the total number of pneumonia deaths in the Gang, see Table XLIII.

The efficacy of good ventilation in the prevention of epidemic pneumonia is a fact of the greatest importance, which has been emphasised in many a medical and sanitary report, as, for example, in the 1895 volume of the Sanitary Commissioner with the Government of India, pages 64 and 65.

Other respiratory diseases were, as in the two preceding years, most prevalent in the Andamans; and the same is the case for the period 1882—91 taken as a whole. The admission ratio was, however, lower than in the preceding year. Among geographical groups the Burma Coast had the highest admission ratio, and the Burma Inland group the lowest.

Dysentery and Diarrhœa.

99. Though the admission rate from diarrhœa fell very slightly, that from dysentery rose considerably, and the death-rates from each rose very much. The rise may have been connected partly with the fact that the year 1897 was wetter and more malarious than its predecessor, but was in great part the effect of famine and privation among the outside population.

The relative prevalence and mortality of dysentery and diarrhœa in the various groups and administrations are displayed in Tables XL and XLI. Bengal, Assam, and the Central Provinces were worst in respect of dysentery and of diarrhœa admission rates; while the Central Provinces had the extraordinary death ratios of 64·72 for dysentery and 18·65 for diarrhœa. The explanation of the low morbidity and of the absence of mortality from diarrhœa in Madras is the same as for the two preceding years: diarrhœa being considered merely as a symptom, cases were returned under the head of the supposed primary disease. Thus, though there were no deaths from diarrhœa in the medical returns, there were 19 deaths from inflammatory affections of the intestine. The Inspector-General of Prisons, Madras, has not followed the medical returns; for, instead of the therein recorded 125 cases with no deaths among all classes of prisoners, he has shown, among convicts only, 771 admissions from diarrhœa with 19 deaths. In using the table given in paragraph 72 to compare the present of administrations with their past, and administrations with each other, in the matter of diarrhœa mortality, this idiosyncrasy of Madras must be borne in mind. In Table LII it is shown that dysentery was less prevalent in January—June than in July—December; and that it was least prevalent in January and February, and most prevalent in August and September. The contrast in the seasonal distribution of dysentery and pneumonia in 1897 may be studied by comparing Table LII with Table LI. The difference is not the same as it was in 1896. The Inspector-General of Prisons, Madras, says:—

> In every jail there is a certain proportion of prisoners who, through depression of spirits, change of habit or diet, or other cause, decline in health in jail, especially on first admission. Such men are always liable to be attacked by dysentery or acute forms of diarrhœa. When the general health of the jail is lowered, such cases are numerous, and a high death-rate follows. When the general health is good, only a few cases occur. Dysentery with diarrhœa is, therefore, one of the most important items, if not the most important, in a jail bill of mortality.

With regard to the dysentery of the Central Provinces jails the Inspector-General of Prisons, Central Provinces, quotes as follows from the medical officers of the jails noted :—

Jubbulpore.—A theory has been advanced that the disease is a "hospitalism" due to overcrowding. This I cannot accept, at least not for this jail, as there has not been overcrowding. . . . . I am of opinion that the jail life and diet have saved very many lives which would have been lost. The disease is due to chronic privation (not to acute starvation), which has caused a general anæmia.

Bilaspur.—The free as well as the jail population suffered severely from dysentery, the district death-rate from this disease for the year being 8·12 as against 1·61 of the previous year. . . . . Although the jail was crowded, every means were taken to prevent infection. Nevertheless ten deaths occurred from dysentery among prisoners who were in good health on conviction. I cannot help thinking that some of these must have contracted the disease by infection, as it developed so soon after their arrival in jail.

Saugor.—The lessened vitality of the population is, I believe, the result of *overcrowding* plus *privation*, which will in one man favour the appearance of dysentery, in another of stomatitis.

Nagpur, etc.—There can be no doubt that the cases of dysentery one meets in jails are infectious. I was sceptical on this point, but am so no longer, since I had proved to me how infectious it was at Nagpur. A new admission was received in jail, and, having dysentery, was sent to hospital. I saw him the next day, and, finding he was a leper and very offensive, had him removed to a separate ward. Two prisoners who slept one on each side of him, and who were not suffering from dysentery, contracted the disease, and died within the fortnight. Since then all cases of dysentery have been segregated. There is little doubt that the disease is due to "hospitalism." As soon as overcrowding commences dysentery appears: the overcrowding reduced, the disease disappears. This was well-marked in this jail, the number of admissions dropping from 19 to 4 in one month. The dysentery one meets in jail is bad enough in a strong man, but occurring in a weakly one is almost hopeless. It was owing to the wretched state of health of a large number of prisoners when admitted to jail that they were more liable to contract the disease. This caused the high mortality for the year under report.

In Table XL it may be seen that nearly 37 per cent. of all the deaths in the jails of India were from dysentery and diarrhœa. The percentage in the previous year was nearly 29.

In almost every province the conditions of the year were exceptional, and only in Assam and Madras was there any reduction in the death-rate from dysentery and diarrhœa. The prevalence of dysentery and diarrhœa in jails depends, of course, greatly on the condition of the prisoners when they are admitted into jail, and excessive death-rates are unavoidable in famine years; but in ordinary times experience shows that very much may be done to diminish mortality from these causes; and it is to the food and drinking water that attention may most profitably be given. The condition of the raw food materials should be frequently examined, and thorough cooking is always essential.

The Inspector-General of Prisons, North-Western Provinces and Oudh, believes that the sand or earth so frequently present in the food of the prisoners plays an important part in the causation of jail dysentery.

In the jails of Bengal the use of cinnamon powder as a preventive of bowel disease is being given a trial, but the results are not yet known.

Beri-beri.

100. There were 60 admissions with 3 deaths recorded under the head of beri-beri, against 24 with 2 deaths in the previous year. There were 11 admissions in Assam, 13 with 1 death in Bengal, and 36 with 2 deaths in Madras. Dibrugarh had 11

admissions, Calcutta (Presidency) 13 with 1 death, Rajamundry 28, Vellore 6 with 1 death, and Berhampur 2 with 1 death. The Vellore cases seem to have been only transfers from Rajamundry. Speaking of the Rajamundry Central Jail, the Inspector-General of Prisons, Madras, says :—

> The Sanitary Commissioner has visited the jail with me, and has pronounced the prisoners to be attacked by *beri-beri*. The thorough disinfection of the buildings, together with the segregation of prisoners believed to be infected, and other measures, precautionary and remedial, have been recommended, and these recommendations are being carried out. At present, however, not much improvement is visible, and, unless things take a turn for the better, further steps, including the temporary or permanent abandonment of the jail, may become necessary. In the meanwhile, it is probable that, though no death from *beri-beri* was returned in 1897, part of the mortality during the last quarter was due to this cause.

It must be said, however, that the documentary evidence to hand does not, so far as it goes, support the diagnosis; while that the medical officer of the jail is himself doubtful on the subject may be seen in Table XLIV. The fact of the matter is that much pathological research remains to be done before the exact nature and etiology of these obscure cases occurring in India is understood. [7]

Strongylus Duodenalis and other Intestinal Parasites. (12)

101. During the year 230 cases with 13 deaths were returned as due to the *strongylus duodenalis* (*dochmius*, *sclerostoma*, or *ankylostomum*). The numbers reported from the various jails, groups, and administrations may be seen in Table XLIII. The highest numbers were from Rajamundry and Cannanore in Madras, and from Saharanpur and Gorakhpur in the North-Western Provinces. No doubt parasites are present in the intestines of many prisoners in all jails. Whether many cases shall be returned or few, depends on the medical officer, on whether he is a keen parasitologist, on whether he considers the parasite present to be the cause of the symptoms from which the patient is suffering, on whether he judges the symptoms of another concurrent disease or those caused by the parasite to be the more important. Such reasons explain the decrease in the Andamans and at Cannanore, and the increase at Rajamundry. The Senior Medical Officer of the Andamans says :—

> In my last year's report I recorded my opinion that the *dochmius duodenalis*, though very generally prevalent among the convicts, was more a complication than a cause of disease, and that the number of parasites was generally too small to produce the pathogenic effects resulting from them in Egypt, Assam, and other countries. In a series of 100 consecutive *post-mortems* at the Viper hospital, the intestines and excreta were carefully examined, and the parasite detected in 75 cases. In 54 the number was below 10, and exceeded 20 only in 5. In self-supporters they have been found almost invariably. They are, however, an exceptionally healthy body of men : anæmia is rarely noticed among them,* and the mortality is generally about 10 per mille. The parasite has also been found during the year in a considerable number of convicts lately arrived from the Indian jails.

The emigration of Indian coolies to foreign countries seems to be conducing to the spread of the parasite in the world.[8]

The presence of tænia was most frequently reported from Monghyr, Gorakhpur, Jubbulpore and the Deccan Gang; of ascaris from Chapra and

* Such cases occur even among Europeans in Europe (10).

Cannanore; of "other entozoa" from Sitapur and Cannanore. In Table LIII it may be seen that the chief items among "other entozoa" were *oxyuris vermicularis* and *bothriocephalus latus*.

Kala Azar.

102. From the jails of India in 1897 no *kala azar* was returned, though the medical officer of the Tezpur jail considered it possible that four of the men who died therein had suffered from that form of disease. The problem of the real nature of *kala azar* cannot yet be said to have been solved.(9)

Dracunculus Medinensis.

103 Cases of guinea-worm were, as usual, most frequent in the Deccan and Southern India. The administrations with the greatest number of cases were Bombay, the Punjab, and Madras. The number of admissions in individual jails may be seen in Table XLIII.

Abscess, Ulcer, and Boil; Slough and Phagedæna.

104. The Andamans and the Punjab administrations had the highest admission ratios from abscess, ulcer, and boil; and in the case of individual jails of over 100 strength the ratios of over 200 per mille of strength were those of Minbu, Fyzabad, Banda, Rawalpindi, Peshawar, Shahpur, Narsinghpur, Mandla and Seoni. Rawalpindi and Narsinghpur were also in this list in last report. There were 11 cases, with 6 deaths, of slough or phagedæna over all the jails of India; but there were not more than two cases (Table XLIII) in any one jail. Four of the fatal cases occurred inthe Central Provinces, but all in different jails.

Anæmia and Debility.

105. Far too many deaths are returned from the jails of India under the indefinite heading "Anæmia and Debility"; and the *post-mortem* records show that very many of them should have been recorded under dysentery, tubercle, etc. The worst jails in this respect in 1897 were those of Chunar and Bilaspur. The attention of the medical officers of prisons is being drawn to the matter.

Mortality of prisoners and of troops compared.

106. A table is, as usual, here given to compare the mortality of prisoners in 1897 with that of soldiers. Taking the death-rate of European troops as unit, the death-rate of native troops will be represented by 0·6, and the death-rate of prisoners by 1·7. The mortality of prisoners was comparatively high as regards cholera, bowel complaints, spleen disease, anæmia and debility, respiratory diseases and tubercle of the lungs. Only from fevers was the European soldiers' mortality highest. The enormously greater liability of the prisoners to death from bowel complaints is well shown in the table. Taking the mortality of the native troops from fevers as 1, that of the prisoners is 1·2, and that of the European troops 5·4. Taking the mortality of the native troops from bowel complaints as 1, that of the European troops is 3·3, and that of the prisoners 16·9. Taking the mortality of the European troops from respiratory diseases as 1, that of the native troops is 4·6, and that of the prisoners 7·5. While the liability of the native soldiers to die from respiratory diseases was less than that of the prisoners, yet these diseases made up a larger percentage of the total deaths among native soldiers than among prisoners. The chief cause of death among European troops was fevers, among native troops respiratory diseases, and among

prisoners bowel complaints. Of course, for obvious reasons, too much must not be made of the comparison here instituted :—

Causes of Death.	Died per 1,000 of Average Strength.			Relative Liability in Percentages.				Percentage in Deaths from all causes.		
	European troops.	Native troops.	Prisoners.	European troops.	Native troops.	Prisoners.	Total 100.	European troops.	Native troops.	Prisoners.
Cholera . . .	1·17	·52	3·94	21	9	70	100	5·1	4·0	10·2
Fevers* . . .	10·03	1·85	2·30	71	13	16	100	43·8	14·1	5·9
Bowel complaints .	2·76	·84	14·23	15	5	80	100	12·1	6·4	36·7
Spleen diseases .	·03	·03	·08	21	21	57	100	·1	·2	·2
Anæmia and debility	·06	·17	2·35	2	7	91	100	3	1·3	6·1
Respiratory diseases	·70	3·23	5·26	8	35	57	100	3·1	24·5	13·6
Tubercle of the lungs	·56	·79	2·95	13	18	69	100	2·4	6·0	7·6
All other causes .	7·62	5·69	7·63	36	27	36	100	33·2	43·4	19·7
All Causes .	22·93	13 12	38·75	31	18	52	100	100·0	100·0	100·0

* Enteric, intermittent, remittent, and simple continued fevers.

Papers quoted in Section IV.

For explanation of abbreviations see end of Section II.

(1) Müller, D. M. W., 1897, No. 29, quoted in C. B. XXIII; Urban, W. M. W., 1897, Nos. 40 and 41, quoted in C. B. XXIII; B. M. J. of 25th June 1898, epitome-page 101; Heubner, D. M. W., 1897, No. 16, quoted in V. J. XXXII-2-1, page 132; Thiele, D. M. W., 1897, 10th June quoted in V. J. XXXII-2-1, page 132; Jemma, Arch. ital. de clin. XXXV, quoted in V. J. XXXII-2-1, page 131; Jemma, La Riforma Med., 1896, Nos. 259 and 260, quoted in C. B. XXIII, page 1099; Senn., quoted in I. M. G. of October 1898; Wentworth, L. of 1st October 1898; Kamen in C. B. XXIV, page 545.

(2) Paper read at meeting of B. M. A. in Edinburgh, quoted in L. of 6th August 1898, page 376, and in B. M. J. of 24th September 1898, page 871.

(3) Schiff. C. B. I. M., 6th June 1898, No. 22, quoted in C. B. XXIV, page 124, and in B. M. J. of 8th October 1898, epitome-page 60; Heubner, D. M. W., 1897, No. 16, quoted in V. J. XXXII-2-1, pages 131 and 132.

(4) Sterling, Sammlung Klinischer Vorträge, F. M., Vol. 15, page 847; Martius, speech quoted in B. M. J. of 8th October 1898, page 1095; Barthel, C. B. XXIV, page 441; L. of 9th July 1898, page 96.

(5) Eug. Fränkel Z. H. XXVII, page 329; Councilman, Report to Boston Board of Health, quoted in I. M. G. of October 1898, page 390; Councilman, Mallory and Wright, Report of the Massachusetts Board of Health, 1898, quoted by Wentworth in L. of 1st October 1898.

(6) Fermi and Montesano, C. B. XXIII, pages 1, 59, 117, and quoted in B. M. J. of 1st October 1898.

(7) Hunter, L. of 25th June 1898, page 1748; I. L. of 16th June 1898; Buchanan, L. of 27th August 1898; Hunter, quoted in I. M. G. of September 1898, page 352; Manson, Tropical Diseases, page 221; Manson quoted in I. M. G. of September 1898, page 349; Van de Burg and others, Janus of July—August 1898, quoted in B. M. J. of 24th September 1898, page 914; Grimm, D. M. W. of 21st July 1898, quoted in B. M. J. of 24th September 1898, epitome-page 49; Norman, B. M. J. of 24th September 1898, page 872; V. J. XXXII-1-2, page 339.

(8) Boyd, B. M. J. of 1st January 1898, page 53; Spitzly, B. M. J. of 8th January 1898, page 116; Mapleton, B. M. J. of 22nd January 1898, page 249; British Guiana report reviewed in B. M. J. of 5th March 1898, page 630.

(9) I. L. of 16th October 1897, page 393; I. M. G. of November 1897, page 408; I. L. of 1st December 1897, pages 545 and 556; I. M. G. of December 1897, pages 461 and 472; B. M. J. of 5th February 1898, page 380; L. of 12th February 1898, page 444; L. of 26th March 1898, page 861; I. M. G. of January 1898, page 1; I. M. G. of June 1898, page 210; C. B. XXIV, page 98; I. M. G. of September 1898, page 324; B. M. J. of 24th September 1898, page 891; Powell, as quoted under (12).

(10) von Rätz, C. B. XXIV, page 305.

(11) Germano, Z. H., Vol. 26, quoted in H. R. VIII, page 944.

(12) Powell in I. M. G. of December 1898, page 441.

SECTION V.

VITAL STATISTICS OF THE GENERAL POPULATION.

107. Vital statistics have been well called the foundation of sanitary effort.

General Remarks.

This description seems to be a very happy one, for not only does it indicate that reliable statistics are essential to the progress of the allied sciences of hygiene and pathology, but it implies the fundamental importance of vital statistics in the consideration of many economic problems. Unfortunately the subject is a difficult one, and it is too often also an uninteresting one. In India the inherent difficulty is increased, while any interest that might be aroused is diminished, by the inaccuracy of the figures. Not only are the returns imperfect, but the population figures, upon which computations must be based, are far from being correct.

The population figures are those obtained at the last census, and even when these were originally correct, the changes which must have taken place in them since 1891, render close reasoning in respect of ratios calculated upon them almost impossible. No amendment in the population figures is possible until after next census; and the corrections which are used in other countries to obtain precise intercensal figures cannot be generally applied with advantage in India.

The returns are certainly improving, and local Governments and Administrations are alive to the importance of their continued improvement; but nothing approaching the actual facts can be obtained so long as the collecting agency in rural areas remains illiterate, and until sufficient pressure is put upon municipal bodies to enforce the bye-laws under which registration is legally compulsory in towns.

The abnormality introduced into the returns for 1897 by the occurrence of famine in many parts of the country, renders any comparison with the figures of former years useless as an index of change in the quality of registration; but just as a traveller reaching an elevation in his path, instinctively looks back over the country he has travelled, so a year of unusual statistics gives a fitting opportunity to glance at some of the tendencies exhibited by the returns relating to vital statistics in India since 1892, when the new census figures were first generally used. Little attempt is made to explain anomalies; this must be left to the provincial Sanitary Commissioners, who are in the possession of local knowledge and are able to make enquiries on the spot.

108. The following statement epitomises the birth statistics of 1896 and 1897,

Births.

showing the urban and rural populations under registration, the number of children born, the ratios of

the births per mille in 1896 and 1897, with the average ratios of the previous five years, and the numbers of males born to every 100 females born :—

Birth Statistics.

Province.		Number of Municipalities and towns in which births were registered.	Number of rural circles in which births were registered.	Population under Registration.* In Municipalities and towns.	In districts, excluding towns.	Total.	Total number of births registered.	Ratio of births, per 1,000 of population.	Highest birth-rate in any one district.	Lowest birth-rate in any one district.	Number of males born to every 100 females born.	Excess or deficiency of births compared with deaths.	Mean ratio of births per 1,000 during previous five years.
Bengal	1896	147	554	3,435,254	67,634,979	71,070,233	2,703,486	38·03	48·98	18·49	106	+3·86	Not stated.
	1897	148	557	3,444,512	67,625,105	71,069,617	2,625,844	36·94	47·40	18·46	106	+4·00	33·83
Assam	1896	21	59	106,397	4,914,687	5,021,084	169,172	33·69	42·71	24·57	107·44	−2·64	30·38
	1897	21	59	106,397	4,914,687	5,021,084	163,617	32·59	45·12	19·77	108·13	−18·02	31·39
North-Western Provinces and Oudh.	1896	492	897	3,241,596	43,663,196	46,904,791	1,660,387	35·40	52·76	22·11	108·86	+2·08	36·99
	1897	497	1,213†	3,210,809	43,693,982	46,904,791	1,458,647	31·10	50·74	13·76	108·98	−9·36	37·42
Punjab	1896	151	447	1,412,775	19,131,226	20,553,982	884,692	43·0	51·9	17·4	110·1	+11·5	39·0
	1897	151	447	2,013,969	18,540,013	20,553,982	874,623	42·6	57·5	19·3	110·5	+11·5	40·8
Central Provinces	1896	72	160	811,710	8,689,691	9,501,401	301,427	31·72	44·00	21·75	106·68	−17·59	38·39
	1897	72	161	811,710	8,689,691	9,501,401	254,973	26·83	46·30	16·23	107·76	−42·51	36·11
Berar	1896	37	67	346,399	2,496,823	2,843,222	109,013	38·3	44·1	31·8	105·3	−5·5	38·6
	1897	38	67	356,002	2,496,823	2,852,825	113,364	39·7	40·4	37·0	106·7	−12·9	37·6
Lower Burma	1896	35	184	588,369	3,926,404	4,514,773	145,688	32·27	42·84	17·91	107	+9	25·65
	1897	35	181	588,369	3,926,404	4,514,773	143,659	31·82	40·97	17·61	108	+6	27·96
Madras	1896	92	179	2,526,775	30,194,492	32,721,267	979,981	29·9	41·5	22·5	104·8	+9·3	27·2
	1897	93	179	2,538,033	30,060,268	32,598,301	935,845	28·7	41·6	20·8	103·9	+3·3	27·8
Bombay	1896	63	221	2,304,373	16,515,973	18,820,346	691,847	36·76	47·55	28·35	107·92	+5·07	35·41
	1897	63	220	2,304,373	16,515,973	18,820,346	629,693	33·46	44·11	21·29	108·42	−6·38	35·51
Coorg	1896	5	5	15,511	157,544	173,055	4,606	26·62	33·11	20·70	97·68	+0·18	21·95
	1897	5	5	15,511	157,544	173,055	3,503	20·24	26·12	15·36	100·74	−29·79	24·18

Note.—This statement is compiled from Provincial Annual Form I. This form formerly gave details regarding each circle of registration, but owing to its consequent bulk and complexity, the Government of India have ordered that the statement should refer to districts only (H. D. letter No. 376—384, dated 24th February 1898). It is, therefore, no longer possible from the details supplied in Annual Form I to compare urban with rural birth-rates.

* Figures taken from Provincial Annual Form No. VI.

It will be seen that although in every province, except Berar, the birth-rates of 1897 are lower than in the previous year, the relative positions of the provinces are not greatly altered—the Punjab and Berar are at the top of the list, and Coorg at the bottom. The North-Western Provinces and Oudh has, however, fallen below Assam and Lower Burma, and the Central Provinces below Madras.

The ratios registered in the past five years show a tendency to increase in every province, except the North-Western Provinces and Oudh, the Central Provinces and Berar. The falling off in Berar is not, however, sufficient to cause that province to lose its high position.

A feature of great interest is the very varying proportion of male and female births registered in the different provinces. In 1897 the percentage of male to

female births ranged from 110·5 in the Punjab, to 100·74 in Coorg, a higher percentage in the one case and a lower in the other than is generally recorded in countries where registration is supposed to be fairly accurate.* Simple explanations of high percentages may be offered: where the total birth-rate is low and the percentage of males born high, the births of females are not registered; and, where the birth-rate is fairly normal and the percentage is high, the births of females have been registered as the births of males. These simple explanations, no doubt, cover many cases, but by no means all.

An examination of the provincial returns for a series of years shows that the percentage figures in each province are fairly characteristic of that province; for instance, in the Punjab the percentage of male to female infants born during the last ten years has never been so low as 110, while in Madras during the same period it has never been so high as 105; meanwhile the lowest birth-rate recorded in the former province was 34·02 per mille in 1891, and the highest in the latter, 32·4 in the same year.

The provinces may be grouped in three classes:—where the percentages are very high, over 109,—the Punjab, the North-Western Provinces and Oudh and Bengal, prior to 1892; where the percentages are low, under 104·5,—Madras and Coorg; the third class, comprising the remaining provinces, where the percentages range between 109 and 105·5.

In Bengal there was a rapid decline in the percentage after 1891; and in recent years there has been a reduction in the North-Western Provinces and Oudh and the Punjab, particularly in the former. This reduction, although in the North-Western Provinces it is not associated with a rise in the birth-rate, is suggestive of improved registration.

If the various provinces, excluding Lower Burma and Coorg, into both of which there is a large annual immigration of males, are arranged in order determined by the distribution of the sexes among the populations under registration, beginning with the Punjab, where males are most largely in excess, and ending with Madras in which, as in the Central Provinces and Bengal, females predominate, it will be found that this order agrees almost exactly with that obtained when the provinces are arranged according to the percentages of males to female births. That is to say, where the census shows a high population of males, the returns give a high percentage of male births. Of course, any cause which may have led to the deception of the census enumerator with regard to the actual number of females in the populations would lead to falsification of the returns of female infants born.

Generally speaking, the percentages obtained in the bordering districts of neighbouring provinces tend, when the average is taken for a number of years, to resemble each other, and the percentage of male births tends to rise in the north and west, where the climate presents extremes of heat and cold, and is dry. Whatever may be the cause of the variations throughout India, even if it is only defective registration, the matter seems to deserve more attention than it has hitherto received.

Deaths.

109. The following statement gives certain details of the registration of deaths and shows the total mortality in the various provinces in 1896 and 1897, the urban, rural and total,

* In England and Wales, in 1896, male births were in the proportion of 103·6 to 100 female births, ranging in that year from 111·6 in Rutlandshire and 108 in Suffolk, to 101·2 in Gloucestershire and 100·8 in Worcestershire. In the previous sixteen years the percentages varied between 103·3 and 104·1.—Registrar General's Report, 1896.

millesimal death-rates in these years, with the quinquennial averages, and the number of deaths of males for every 100 deaths of females :—

Death Statistics.

Province.		Number of Municipalities and towns in which deaths were registered.	Number of rural circles in which deaths were registered.	Population under registration.			Number of deaths registered.			Ratio of deaths per 1,000 of population.			Highest death-rate.		Lowest death-rate.		Mean death-rate during previous 5 years.			Number of deaths of males to every 100 deaths of females.
				In Municipalities and towns.	In Districts, excluding towns.	Total.	In Municipalities and towns.	In Districts, excluding towns.	Total.	In Municipalities and towns.	In Districts, excluding towns.	Total.	In Municipalities and towns.	In Districts, excluding towns.	In Municipalities and towns.	In Districts, excluding towns.	In Municipalities and towns.	In Districts, excluding towns.	Total.	
Bengal	1896	147	554	3,435,254	67,634,979	71,070,233	124,154	2,304,676	2,428,830	36·14	34·07	34·17	58·30	53·07	15·70	23·68	32·32	30·59	30·67	117
	1897	148	557	3,444,512	67,625,105	71,069,617	120,875	2,220,757	2,341,632	35·09	32·83	32·94	89·59	49·52	14·20	23·62	33·78	32·03	32·11	118
Assam	1896	21	59	106,397	4,914,687	5,021,084	4,035	178,782	182,417	37·92	36·30	36·33	68·06	45·78	18·31	29·19	36·63	31·66	30·17	113·89
	1897	21	59	106,397	4,914,687	5,021,084	7,098	246,995	254,093	66·71	50·26	50·61	125·17	61·00	22·86	41·58	39·14	32·98	31·45	109·44
North-Western Provinces and Oudh.	1896	492	897	3,241,595	43,663,196	46,904,791	131,150	1,431,744	1,562,894	40·46	32·79	33·32	114·22	67·43	16·07	21·82	36·73	31·86	32·20	117·0
	1897	97	1,815	3,210,809	43,693,982	46,904,791	153,901	1,741,691	1,897,592	48·55	39·86	40·46	108·05	61·85	24·83	23·67	37·63	32·26	32·63	116·77
Punjab	1896	151	447	1,412,775	19,131,216	20,553,982	50,541	595,962	648,099	35·77	31·20	31·53	48·96	41·59	23·65	22·30	40·45	34·05	34·51	111·0
	1897	151	447	2,013,969	18,540,013	20,553,982	69,363	568,864	638,227	34·44	30·68	31·05	56·22	49·23	22·93	21·30	39·34	34·52	34·99	105·0
Central Provinces.	1896	72	160	811,710	8,689,691	9,501,401	39,609	418,850	458,463	48·79	49·35	49·31	172·21	85·14	18·95	30·55	31·72	33·94	33·76	119·31
	1897	72	161	811,710	8,689,691	9,501,401	66,215	592,607	658,822	81·57	68·20	69·34	510·83	96·24	29·05	29·95	29·61	37·20	37·08	124·84
Berar	1896	37	67	346,399	2,496,823	2,843,222	15,255	109,532	124,787	44·0	43·8	43·8	65·7	50·4	23·5	38·7	36·37	39·0	38·8	114·3
	1897	38	67	355,002	2,496,823	2,852,825	20,451	129,771	150,222	57·4	51·9	52·6	92·2	60·5	21·8	41·6	39·34	39·6	39·4	117·1
Lower Burma	1896	35	184	588,369	3,926,404	4,514,773	16,073	90,014	106,087	28·34	22·93	23·63	43·36	28·39	10·68	15·01	29·31	19·54	20·73	130
	1897	35	181	588,369	3,926,404	4,514,773	19,026	99,544	118,570	32·34	25·33	26·26	43·89	36·68	15·87	13·91	29·06	21·30	22·27	127
Madras	1896	92	179	2,526,775	30,194,492	32,721,267	73,463	602,324	675,787	29·0	19·9	20·6	72·4	25·3	6·6	14·6	29·0	19·7	20·7	105·6
	1897	93	179	2,538,033	30,060,268	32,598,301	81,056	746,469	827,525	31·9	24·8	25·4	56·8	50·7	7·3	19·0	28·2	19·7	20·4	105·8
Bombay	1896	63	221	2,304,373	16,515,973	18,820,346	85,740	510,732	596,472	37·21	30·92	31·69	60·00	43·67	12·21	18·03	32·22	29·20	29·57	110·0
	1897	63	220	2,304,373	16,515,973	18,820,346	130,723	619,193	749,916	56·72	37·49	39·84	148·78	54·77	10·63	14·41	33·77	29·99	30·45	111·1
Coorg	1896	5	5	15,511	157,544	173,055	503	4,071	4,574	32·43	25·84	26·43	55·89	39·49	21·29	22·37	31·42	25·87	26·26	123·1
	1897	5	5	15,511	157,544	173,055	964	7,694	8,658	62·15	48·84	50·03	116·71	66·47	32·45	34·45	31·62	25·87	27·19	116·1

NOTE.—This statement used to be compiled from Provincial Annual Form II, but under the orders already quoted this statement now refers to districts only. It has been necessary, in order to compare urban with rural death-rates, to make use of the facts supplied in Annual Statement VI.

Except in the Punjab, the death-rate was everywhere higher than the average, and in every province, except Bengal and the Punjab, the death-rates of 1897 were higher than the death-rates of 1896.

As in the previous year, the highest death-rates were recorded in the Central Provinces, Berar and Assam, and the lowest in Burma and Madras. A phenomenal rise in the death-rate in Coorg from 26·43 per mille to 50·03, raised that small province from the eighth place which it held in 1896 and holds among the quinquennial averages, to the fourth place in 1897. The relative

positions of the remaining provinces remain unaltered, except that a rise in their death-rates has placed the North-Western Provinces and Bombay above Bengal.

An examination of the death-rates of recent years shows that the provinces may be placed in three groups: where death-rates are very high, comparable with the highest registered in any European country twenty years ago, the Central Provinces and the neighbouring province of Berar, in both of which recent events have been disastrous to the public health; where rates are low, comparable with those recorded in Prussia, at the present day, Madras and Lower Burma; and third, where the rates are medium, from 30 to 35, comprising the remaining provinces. In Lower Burma, with improved registration, the rates are steadily increasing; but in Madras, if the sudden rise in 1897 is excepted, the tendency seems to be towards a decline rather than towards a rise in the rates.

In former years the Central Provinces has furnished an exception to the rule that the average death-rates in towns are higher than the rates recorded in rural areas, but on account of the effect of famine and the flocking into the towns of the starving poor, the excess of rural mortality, which in 1896 had been reduced to ·56 per mille, has been changed to a deficiency of no less than 13·37 per mille. Elsewhere than in Bengal and the Punjab there was a marked rise in urban mortality as compared with 1896, and everywhere, except in Madras and the Punjab, the urban rates had increased in a greater degree than the rural—in Bombay, Assam and Coorg the increase was very remarkable. In Madras the rural death-rate increased much more than the urban; and in the Punjab the mortality in towns fell out of proportion to the reduction in rural areas.

Turning now to the column showing the number of male deaths for every hundred female deaths reported, we find in 1897 that 105 males died for every 100 females that died in the Punjab, while in Lower Burma the percentage was 127. This great variation is not paralleled in the returns for England and Wales during the last fifty years, the extremes there having been 105·4 in 1849, and 114·5 in 1877. Indeed, in England from 1878 onwards the figures do not vary much from year to year, and from 1886 to 1895 the average was 112·1, with extremes of 111·1 and 113·6. Every province in India, except Madras, exhibits greater variation in the recorded percentages in the last five years, but when averages are struck the provinces arrange themselves into groups, again three in number,—very high percentages, Lower Burma and Coorg; very low, Bombay and Madras; and medium, the remaining provinces. The high percentages in Lower Burma and Coorg may be accounted for by the annual immigration in search of work of coolies, among whom mortality is apparently very high. The percentage in Bombay is increasing steadily. In Madras a low percentage is in part explained by the fact that there is a considerable excess of females in the population. This factor, however, if the census figures are to be accepted as correct, is not influential elsewhere, for the excess of males in the Punjab is greater than in any province except Coorg, while the relative percentage of male deaths is lower than in any province except Madras and Bombay; and though females predominate in the populations under registration in both Bengal and the Central Provinces, the percentages of male deaths are higher in these provinces than in any, except Lower Burma, Coorg and the North-Western Provinces and Oudh.

Indeed, omitting Lower Burma and Coorg, in Madras alone does the proportion of male to female deaths show any relation either to the varying

excess of male births or to the excess of males in the populations as determined at the census of 1891.

With the remarkable exception of the Punjab, the death-rates of male infants in 1897 were everywhere higher than the death-rates of female infants; and, again excepting the Punjab, boys between the ages of one year and five years died at a greater rate in every province than girls of the same ages. As was to be anticipated, the infantile mortality was enormous in the Central Provinces and Berar, but there is a curious anomaly in the returns from these provinces. In England and Wales the records show that there are great variations in the mortality of infants from year to year, but that the variations in the proportion of the sexes dying is small; that is to say, if the mortality of male infants is high, the mortality of females is high also, and *vice versâ*;* and it would be expected that in the province where the death-rate of male infants was highest, female infants would die at the greatest rate; but this is not the case, for the death-rate of male infants in 1897 was highest in the Central Provinces, while female infants died at the greatest rate in Berar.

The mortality among boys and girls between one year and five years of age was greatest in Berar; the next highest mortality among boys at these ages occurred in the Central Provinces, but among girls, in Coorg.

The highest mortality among the aged was recorded in the Central Provinces and in Berar. The lowest mortality among infants, among young children and among the aged of both sexes was registered in Madras.

The rates of mortality at the different age-periods are estimated on the census populations at these ages as determined eight years ago, and even when the figures were originally fairly correct, the changes that must have taken place convert the ratios into rough estimates. It is, however, interesting to look at the peculiarities displayed by the different provinces, and these will be most easily brought out by taking a standard for comparison.

In one of his studies in statistics, Dr. G. B. Longstaff gives a diagram,† in which he exhibits graphically by means of curves the average relations of the death-rates of males and females in England and Wales in the ten years 1871—80. Ignoring the slight excess of female death-rates occurring in the age-periods between 10 and 20, when functional activity is being established, the diagram shows that the mortality of both sexes, but especially of males, is greatest at the two extremes of life; that from the third to the thirty-fifth year there is but little difference in the mortality of the sexes and the curves practically coincide; and that from the thirty-fifth year on, males again die more rapidly than females, the rate increasing with advancing years. The reasons quoted by Dr. Longstaff for the greater mortality among males are the following:—

> Occupations, habits, and probably to some extent constitutional differences, account for the superior longevity of women; but it is not possible to give any good reason for the great excess of mortality of male infants in the first year of life; it would seem that it must depend on some constitutional difference; but, whatever it may be, in the second year of life it has almost disappeared.‡

A diagram similar to Dr. Longstaff's has been a feature of the Bengal Sanitary Report since 1892. The diagram in the report for 1897 is based upon the average death-rates of males and females in Bengal in the ten years 1888-97, and it is instructive to compare this with the English diagram. In the English diagram, as we have seen, the curves representing the average death-rates of

* Registrar General's Report for 1896, p. xviii.
† "Studies in Statistics," London, 1891, p. 7.
‡ *Loc. cit*, p. 9.

males and females are in contact from the third to the thirty-fifth years; in the Bengal diagram the curves never touch, and they approach contact only about the seventeenth year, when there is a sharp rise in the curve representing the death-rate of females.

Major Dyson regards the greater mortality of males in Bengal as easy of explanation. "It is well-known," he writes, "that male children are more difficult to rear than female children, and adult males are more exposed to vicissitudes of climate and accident than females." The statement that male children are the more difficult to rear does not, however, explain the phenomenon, and the questions arise, are adult males among the masses in Bengal, and in India generally, more exposed to vicissitudes of climate and accident than females? If they are, does this extra exposure compensate for the effects of premature marriage and maternity and primeval midwifery? Whatever the replies to these questions may be, it is a fact that the returns since 1892 show that at every age-period in Bengal, except 15—20, in 1893, and at every age-period in the Central Provinces, the recorded death-rate of males is higher than the recorded death-rate of females. This is, however, not the case in other provinces. In every other province of India proper the female death-rate is higher than the male in the age-period, 15—20; and in all these provinces it is the rule for the female rates to be the higher in the following age-period, 20—30. Moreover, in Bombay, the Punjab, Berar and Coorg it is invariable, while in other provinces it occasionally happens that females die at a greater rate than males in the age-period, 10—15. That is to say, during the age-periods embracing adolescence and early child-bearing the female death-rates are higher than the male rates. In Burma, where marriage is deferred, the female death-rates are the higher in the age-periods, 20—30 and 30—40.

Bengal and the Central Provinces have one factor in common, the female populations are greater than the male; but this predominance is more pronounced in Madras, where the female death-rates are always the higher in the age-periods 15—20 and 20—30, and, except occasionally in the age-period 10-15, at these ages only.

The returns from the Punjab are altogether exceptional; females die at a greater rate than males at every age-period, except in infancy, and in age-periods over 40; and in 1897 the extraordinary phenomenon, not observable in any provincial returns, since 1887 at any rate, of the death-rate of female infants being higher than the death-rate of male infants was recorded. The Punjab ratios may be explained by the female population at nearly all periods being under-estimated at the census.

Turning next to the *ratios* of the deaths registered from 1892 onwards among the different sexes under the four headings, cholera, fever, small-pox, and dysentery and diarrhœa, it is to be noted that in Madras, the Central Provinces and Lower Burma the death-rates of males are always the higher under all four headings.

Cholera is occasionally more fatal to females than to males in the North-Western Provinces and Oudh, and in Assam,—particularly, it would appear, in bad cholera years.

Small-pox was more fatal to females than to males in four out of the six years in the Punjab, in Bombay in 1893, in Assam and Berar in 1894, and in Coorg in 1894 and 1895.

Fever, the all-embracing death-cause, was, as might be expected from the

character of the provincial statistics, more fatal to females always in the Punjab, and generally in Coorg ; females died from fever at a greater rate than males in Bombay in 1892 and 1894, and in Assam in 1895.

Dysentery and diarrhœa are invariably more fatal to males than females in every province, and probably account for much of the excess mortality among male infants and children.

Annual Form V. of the provincial Sanitary Reports is intended to exhibit the death-rates among the various classes of the population, divided by professed religions into four sections, Christians, Muhammadans, Hindus and "Other Classes." In Bengal and Burma there is a separate section for Buddhists, who form the great mass of the population in the latter; and in Bombay a new section representing Parsees, of whom the census population in the Presidency is 73,945, was introduced in 1897.

It cannot be said that the returns condensed in Form V. are satisfactory so far as Christians and "Other Classes" are concerned. In the reports from the Central Provinces and Coorg no returns for Christians are given ; and in some provinces Europeans are apparently included in this section, while in other provinces they are excluded. "Other Classes" in some provinces represent aboriginal tribes living under conditions unfavourable alike to longevity and accurate registration ; elsewhere this heading comprises small sects whose conditions of life are at least as favourable to accurate registration and long life as those enjoyed by the other sections of the population. In comparing class mortality, as shown in the returns since 1892, extraordinary differences are accordingly to be noted in the relative mortality of Christians and "Other Classes."

In the North-Western Provinces, Punjab and Burma the mortality is invariably lower among Christians than it is among any other section of the population. In Bengal the mortality among Christians is almost always the lowest; but in 1893, when the mortality among "Other Classes" was little more than half any rate since registered among them, Christians came second. In Madras the Christian death-rate follows the very low rate credited to "Other Classes." In Berar, on the other hand, the death-rate among Christians is always excessive and, except in 1897, much the highest. In Assam the Christian death-rate is generally above the provincial average, while in Bombay it is always below it.

"Other Classes" invariably show the highest of the death-rates in Assam, the North-Western Provinces, the Punjab and the Central Provinces, and, generally, show the highest rate in Coorg. In Madras and Bombay, however, the mortality among "Other Classes" is always the lowest. In Berar their mortality is always very high, and it is above the average in Coorg. The mortality among "Other classes" is generally low in Bengal, although it is increasing there, and in 1897 it was the highest of any.

Contrasting Muhammadans with Hindus we find that in Assam, where there are about 50 Muhammadans for every 100 Hindus, the former always die at the greater rate. Hindus, however, invariably die at greater rates than Muhammadans in Berar and Coorg—provinces in which there are nearly 100 Hindus for every 8 Muhammadans.

In Bombay the Hindu death-rate is generally much higher than the Muhammadan ; and in Madras and the North-Western Provinces the Hindu rates are, as a rule slightly the higher. In the remaining provinces, Bengal,

where there is an enormous preponderance of Hindus over Muhammadans among the population, and in the Punjab and Burma, where Muhammadans outnumber Hindus, sometimes the one section and sometimes the other exhibits the higher death-rate.

The following statement shews the monthly incidence of mortality from all causes in each province :—

Statement showing the Deaths from all causes, according to Months, in the different Provinces of India during the year 1897.

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Ratio of deaths per 1,000 of population.	
														1897.	1896.
Bengal	164,049	145,998	211,392	189,410	180,516	162,550	171,842	237,566	199,583	192,428	271,197	215,101	2,341,632	32·94	34·17
Assam	13,854	12,505	15,443	17,124	21,996	24,611	26,306	23,756	22,663	24,058	26,747	24,330	254,093	50·61	36·33
North-Western Provinces and Oudh.	143,056	125,975	145,831	149,803	135,532	120,859	130,244	156,788	180,580	235,060	206,224	166,280	1,897,592	40·46	33·31
Punjab	44,362	34,559	36,492	35,695	41,928	41,672	38,907	41,344	57,162	87,934	98,688	79,593	638,227	31·05	31·52
Central Provinces	36,547	33,374	36,384	38,362	36,318	71,609	61,445	80,785	81,891	72,069	52,880	37,158	658,822	69·34	49·31
Berar	5,875	5,020	5,703	7,869	11,135	10,368	13,188	25,849	25,665	19,395	11,452	8,713	150,222	52·6	43·8
Lower Burma	8,796	8,069	8,639	8,884	8,794	8,662	12,531	11,757	10,749	10,126	10,057	11,502	118,570	26·26	23·63
Madras Presidency	76,843	53,556	52,478	48,706	56,960	63,915	77,480	82,249	76,425	80,452	71,902	86,559	827,525	25·4	20·6
Bombay „	50,854	47,564	54,347	56,449	59,867	60,572	75,732	82,473	71,193	68,829	65,139	56,897	749,916	39·84	31·69
Ajmere-Merwara	903	738	816	892	1,092	842	659	1,173	1,599	1,830	1,467	1,375	13,385	24·68	28·25
Coorg	490	397	521	545	848	1,031	1,158	1,037	677	711	633	910	8,658	50·03	36·43
Mysore	6,707	5,209	5,937	5,923	6,326	6,466	7,799	7,284	7,584	7,809	9,348	10,496	86,888	17·94	14·21
Total	553,136	472,955	573,983	559,722	581,305	572,957	617,291	752,061	736,171	801,601	825,734	698,614	7,765,530	35·63	31·65

Everywhere, excepting Bengal, the Punjab and Ajmere-Merwara, the numbers of deaths registered were greater than in 1896, the total excess aggregating 862, 387.

The months in which the greatest mortality occurred were November, October and August, in the order given. By far the lowest mortality was registered in February, and this was followed, but at a great distance, by January and April.

In comparing the monthly distribution of the mortality in the different provinces in 1897 with past years, no conspicuous irregularity is observable; maxima and minima occurred in the same months as in an ordinary year, but the figures are generally much higher.

In the following paragraphs some account is given of the salient features of registration in the different provinces.

Bengal.

110. No change was made during 1897 in the system in force in Bengal for the collection of vital statistics. Registration is compulsory in towns; and in rural areas the particulars are collected by the village watchmen and registered by them at the police outposts and stations. Inspecting officers of the vaccination establishment verify registers and report any errors or omissions that they may find. Errors are corrected and omissions are rectified, while suitable notice is taken of the neglect of the defaulting watchman or policeman. During 1897, 178,528 births and 124,204 deaths were enquired into, and it was found that 3,043 of the former and 1,944 of the latter had not been entered in the *thana* registers. The total number of persons, including watchmen and policemen, convicted of neglect in respect of registration in 1897 was 1,810, against 1,969 in the previous

year; on the other hand, there was an increase from 408, in 1896, to 463 in the number of persons warned.

The conditions affecting the vital statistics in Bengal in 1897 were peculiar, and, making every allowance for defects in registration, the results were extraordinary. The monsoon rains of 1896 ceased prematurely, so that the public health was unusually good during the last quarter of the year, owing to a great decrease in the ordinary mortality recorded under fever. Similar favourable conditions were maintained during the early part of 1897. But the drought while it lessened fever mortality, led to widespread scarcity, merging in many places into famine. No less than fifteen districts are described by Major Dyson as famine-stricken, while in other four, though the extensive measures of relief necessary in the former were not required, test works were opened and a certain amount of gratuitous relief had to be given. The actual period of famine conditions extended from the beginning of October 1896 to the end of September 1897. It would appear from the statistics that the scarcity was sufficiently great to check the birth-rate, but not great enough to raise the death-rate in the face of the other generally favourable conditions, for, of the various classified death-causes, only small-pox, dysentery and diarrhœa and injuries* caused more deaths than in 1896, while fever, which generally causes rather more than two-thirds of the deaths, was only very slightly (about ·30 per mille) more fatal than in an ordinary year.

The total number of births registered was 2,625,844, as compared with 2,703,486 in 1896, and the birth-rate, which reached 38·03 per mille in that year, fell to 36·94, which is, however, 3·11 per mille in excess of the quinquennial average. The highest district birth-rates were recorded in Malda, 47·40, Noakhali, 44·71, and Murshidabad, a district affected by the scarcity, 44·64; while, excluding Calcutta, the lowest rates were recorded in the Sonthal Parganas, 29·62, a famine district, and Pabna, 28·97, a scarcity district. In the urban district of Calcutta the birth-rate was only 18·46, accounted for in part by the great excess of male population, and in part by defective registration. Among the towns, Jamalpore again heads the list with a birth-rate of 52·62, and in other ten the rates were over 40; but in the towns generally the birth-rates were lower than in the surrounding country; the reasons given for this by the Sanitary Commissioner being the following:—

(1) Excess of the male over the female population.
(2) The existence of a large floating population.
(3) The custom of women leaving the towns to be confined in the country.
(4) Defective registration.

All these causes no doubt contributed in the small towns of Nalchiti, Dinajpur and Jhalukati, where the lowest birth-rates, 11·94, 11·06 and 2·11 per mille, were recorded, and it would seem, in the case of the last named at any rate, that defective registration is mainly to blame, for the birth-rate has been abnormally low for years past, and in 1897 four male births were recorded for every single female birth.

The percentage of male to female births in the province generally was 106; exceptionally high percentages were recorded in neighbouring districts of Calcutta (114), the 24-Parganas (112), Howrah (111); and Hooghly (111), pos-

* The death-rate from injuries was raised on account of the numbers who perished in the cyclone of the 24th October.

sibly due, in view of the comparatively low birth-rates returned, to defective registration. In none of the famine districts, save Saran (110) and Shahabad (108), were the percentages abnormally high, nor was the percentage more than 107 in any district where the recorded birth-rate was above the provincial average.

The total number of deaths registered was 2,341,632, as compared with 2,428,830 in the previous year, and the death-rate was 32·94 per mille, against 34·17 in 1896, and a quinquennial average of 32·11. The highest district death-rate was 49·46 per mille, recorded in Chittagong, where not only were large numbers drowned by the storm-wave which swept over part of the district during the cyclone of the 24th October, but the privations and the pollution of the water-supplies which resulted were favourable to the development of fever and cholera.

It is an eloquent testimony to the efficacy of the relief measures that the next highest death-rates were only 48·12 in Hazaribagh and 46·48 in Lohardaga. These rates were followed by 42·46, recorded in Backergunge, which was unaffected by famine. The lowest district death-rates were 26·02, 24·42 and 23·88 per mille, registered, respectively, in Tippera, the 24-Parganas and Singbhum.

The average rural death-rate was 32·83, as compared with 35·09 in the towns. In some of the latter the rates were very high, the highest having been 89·59 in Lohardaga, due mainly to cholera; 78·51 in Hazaribagh, where also cholera was very rife; 67·00 in Kotiung, due largely to dysentery and diarrhœa; 66·30 in Chatra, and 61·62 in Daltonganj, due in both cases largely to cholera; and 60·94 in Buxar, ascribed chiefly to fevers. In many of the towns the rates were low, the lowest having been 15·43 per mille in Cossipore-Chitpur, 14·37 in Jhalukati, and 14·20 in Maniktala.

Of the various sects the small Christian and Buddhist communities had the lowest death-rates, 21·69 and 29·08 per mille, respectively; Muhammadans and Hindus died at the rates of 33·60 and 32·52 per thousand; while the "Other Classes," most of whom live in the Sonthal Parganas and Lohardaga, died at the millesimal rate of 35·63.

The smallest numbers of deaths were recorded in February, June and January, and the largest numbers in November, August and December.

The age distribution of mortality is interesting. At all age periods, save those from 10 to 20, the rates were lower than in 1896; the comparatively low infantile mortality is, of course, in part explained by the defect in the number of births, but in a famine year it is curious that the death-rate of the aged should be much lower than usual.

Infants died at the rates of 239·11 and 194·41 per mille among males and females, respectively; and boys and girls between one year and five years of age at the rates of 45·79 and 38·72 per thousand. As is usual in Bengal, the death-rates of males were higher at all ages than those of females, the respective averages having been 35·87 per mille, as compared with 30·03.

111. The number of European seamen reported to have arrived in the port during the year under review was 19,608, against 17,053 in 1896, and the average daily population was 1,202, or 78 more than in the previous year. The total number of deaths in hospital was 26, equal to a death-rate of 21·63 per thousand as compared

Port of Calcutta.

with 28·46, the fall being chiefly due to cholera, from which 11 deaths (9·15 per mille) occurred in 1897, against 18 (16·01 per mille) in 1896.

Among the native floating population the deaths registered during the year numbered 208, against 219 in 1896, the death-rates for the two years having been 8·11 and 8·54, respectively.

Assam.

112. The arrangements for the registration of vital statistics in Assam, and the area of their collection, comprising the plains districts of the Brahmaputra and Surma Valleys, selected tracts in the Khasi and Jaintia Hills, and in the Garo Hills and the station of Kohima, remained unaltered during the year. Only in the Surma Valley and in Goalpara are the registrars paid, elsewhere village headmen, on whom but little pressure can be brought to bear, are employed. Registers are checked by Inspectors of Vaccination and by the police, but, except in the district of Goalpara, apparently in a perfunctory way. In the towns, where registration is supposed to be compulsory, there were 241 prosecutions for failure to report, against 140 in 1896, and this increase in activity seems to have effected some slight improvement, but in many of the towns, in some of which registration is peculiarly bad, no action was taken under the Acts.

In the Garo Hills the birth-rate rose from 37·15 per thousand to 40·07; and the death-rate from 33·58 to 51·83. In Kohima the birth-rate rose from 28·64 to 34·25; and the death-rate from 28·07 to 55·59, including 77 deaths which occurred in the dispensary.

In the Brahmaputra and Surma Valleys and the Khasi and Jaintia Hills the total number of births was 163,617, as compared with 169,172 in the previous year; and the birth-rate was 32·59 per mille, against 33·69, the highest on record, registered in 1896, and 31·39 the mean of the preceding quinquennium.

As in previous years, the birth-rate in the Surma Valley, 34·86, was higher than that recorded in the Brahmaputra Valley, 30·39; but the highest district rate was recorded in Goalpara, 45·12; and the rate in Lakhimpur, 35·17, was the same as that recorded in Sylhet. In Goalpara, where for the last three years the highest rate has been registered, the continued good results are attributed to the personal interest taken in the work by Mr. Ward, the District Superintendent of Police. The lowest rates were 25·53, 25·45 and 19·77, registered, respectively, in the Khasi and Jaintia Hills, Kamrup and Nowgong. In Nowgong the ravages of *kala azar* have doubtless reduced the population, and the *gaonburas* who collect the statistics are reported to have often been so ill as to be unable to take their reports to their stations.

Among the towns the highest birth rates were recorded in Golaghat, 42·97 per mille, Karimganj, 41·51, Dibrugarh, 40·20, and Hailakandi, 40·00; while the lowest were registered in Silchar, 16·08, Dhubri, 14·30, and Maulvi Bazar, 12·17.

The average percentage of male to female births was 108·13, ranging in the districts from 105·74 in the Khasi and Jaintia Hills, to 111·28 in Sibsagar.

The year was an extraordinarily unhealthy one, and the number of deaths was 254,093, exceeding the previous record number by no less than 71,676!

The death-rate was 50·61 per thousand as compared with 36·33, the highest previously recorded, in 1896, and 31·45, the quinquennial mean. The deaths from fevers were more than 10 per mille in excess of the mean; the death-rate from this cause being less than the mean in only two districts, Goalpara and Sibsagar. In every district, except Sylhet, Nowgong, Lakhimpur and the Khasi and Jaintia Hills, cholera was more prevalent than usual, the

average death-rate throughout the province being nearly doubled. Small-pox also was more fatal than usual everywhere, except in the Surma Valley and in Goalpara. Dysentery and diarrhœa were more fatal than usual in every district.

The highest district death-rates were recorded in Cachar, 61·18 per mille, Sylhet, 53·02, and Goalpara, 50·53; and the lowest in Darrang, 46·74, Sibsagar, 42·95, and Lakhimpur, 41·72.

The nominal causes of the exceptional mortality have been indicated above, but the reasons which determined the activity of these causes are not apparent. The earthquake has been blamed; but the Sanitary Commissioner points out that the mortality was generally least affected in places where most damage had been done by the earthquake, and *vice versâ*. It seems, however, impossible to doubt that the suffering and exposure resulting from the floods and other effects of the earthquake could have failed to affect the public health very injuriously. This is borne out by a comparison of the relations of the death-rate in 1897, in the months before and after the earthquake, with the corresponding figures in other years. It must be remembered that the last seven months are generally more unhealthy in Assam than the first five, and that the first five months of 1897 were peculiarly unhealthy. But if the total death-rate had borne its normal relation to that recorded up till May, it would have been only about 44 per mille, whereas it was actually 50·61, and it seems not unfair to ascribe part of the excess to the effects of the earthquake.

The average death-rate in rural areas was 50·26 per mille, against 66·71 in the towns. Among the latter, extraordinarily high rates were recorded in Tezpur, 125·17, Dhubri, 112·12, Karimganj, 111·97, Hailakandi, 109·23, Barpeta, 106·84, and Golaghat, 101·31. In Tezpur cholera, fevers and dysentery and diarrhœa were exceedingly fatal; in Dhubri the high death-rate was mainly due to cholera and dysentery and diarrhœa; in Karimganj and Hailakandi, to fevers; in Barpeta, to cholera and fevers; and in Golaghat, to dysentery and diarrhœa. The lowest urban death-rates were 30·43, 24·26 and 22·86, registered, respectively, in Maulvi Bazar, Shillong and Jowai, small towns in which the mortality from fever was low and cholera was either altogether absent (Jowai) or only a few cases occurred.

Among the different communities, the highest death-rate, 66·48, was recorded for "Other Classes," and the lowest, 26·88, for the comparatively small community of Christians; Muhammadans and Hindus died at the rates of 55·28 and 45·60 per thousand.

The death-rate among male infants was 251·81 per mille, and among females 236·42, and among boys and girls between one year and five years the rates were 62·40 and 61·46, respectively. At all periods, except those between 15 and 30, the male death-rates were the higher, the average mortality among males having been 51·20 per mille, against 49·97 among females.

North-Western Provinces and Oudh.

113. The conditions of the year in these provinces, as elsewhere, were entirely abnormal; the birth-rate was diminished on account of the severe scarcity that prevailed in many districts during the previous year, while the death-rate was increased owing to the effects of the famine, which was widespread in 1897.

In the beginning of the year there were nearly half a million persons in receipt of aid in thirty-seven districts, of which twelve were recognised officially

as famine-stricken.* The numbers assisted increased rapidly till a maximum of 1,696, 722 was reached on the 27th of February; in March the numbers fell off on account of the harvesting of the spring crops being in operation, but large numbers returned in April and May, and the total did not again diminish until the approach of the rains in June. In September relief works were closed, although gratuitous help was continued in the villages until the middle of October, when the famine was practically at an end. In the margin is given a statement, taken from the resolution by the Local Government on the provincial Sanitary Report, showing the actual numbers on relief at certain dates throughout the famine of 1897.

Dates.	Numbers on relief.
2nd January	496,879.
6th February	1,400,243.
6th March	1,542,122.
3rd April	1,021,126.
1st May	1,289,862.
5th June	1,554,844.
3rd July	861,408.
7th August	542,085.
4th September	416,116.
2nd October	168,337.

The total number of births recorded was 1,458,947 against 1,660,387 in 1896, and the birth-rate fell from 35·40 per mille in that year to 31·10 in 1897, as compared with a quinquennial average of 37·42. The highest district rates were 50·74 per mille in Bulandshahr, 47·48 in Etah, 46·02 in Aligarh, 43·73 in Muzaffarnagar, and 41·78 in Meerut, all prosperous districts. The lowest rates were 13·76 per mille in Banda, 19·49 in Hamirpur, 21·0 in Jhansi, 21·32 in Azamgarh, 22·78 in Fatehpur and 23·61 in Hardoi, all districts which had suffered more or less from scarcity in 1896. In only twelve districts were the births more numerous than the deaths.

The percentage of male to female births rose from 108·86 to 108·98, ranging in the districts from 118·09 in Naini Tal to 102·69 in the neighbouring district of Garhwal. In some of the famine districts the percentages were very high, *e.g.*, Banda 116·93, Cawnpore 112·33, Hardoi 110·69, but almost as high percentages were registered in these districts in 1895, while in districts where there was no famine, *e.g.*, Meerut 112·43, Saharanpur 112·24, high percentages have been registered for years past.

The number of deaths recorded was 1,897,592, as compared with 1,562,894 in 1896, and the death-rate was 40·46 per mille, as compared with 33·32 in the previous year, and was 7·83 per mille higher than the mean of the preceding five years. Although the death-rate was so much higher than the average, it must be reckoned a low rate when the circumstances are taken into consideration, for it is actually more than 2 per mille less than in 1894, when the millesimal rate, owing to a widespread epidemic of cholera and great mortality from fever was 42·51.

The highest district rates were 62·07 per mille in Hamirpur, 59·71 in Jalaun, 55·77 in Bareilly, 55·55 in Agra and 55·09 in Fatehpur, and high rates were registered also in Mirzapur, Hardoi, Banda, Lucknow and Rae Bareli. All these districts were severely afflicted by famine, except Agra and Bareilly, in which a fatal and persistent form of malarial fever was present and occasioned a higher mortality than might otherwise have been the case had not the population of these districts shared in the actual scarcity which the high price of food-grains occasioned. The lowest rates were 23·67, 24·10 and

* Cawnpore, Banda, Hamirpur, Allahabad, Jhansi, Jalaun, Jaunpur, Lucknow, Unao, Rae Bareli, Sitapur and Hardoi were recognised as famine-stricken in the beginning of the year. In January and February the following seven were added to the list:—Agra, Etawah, Mirzapur, Bara Banki, Gorakhpur, Azamgarh and Fatehpur. The following eighteen districts are described as "scarcity districts":—Dehra Dun, Muttra, Farukhabad, Mainpuri, Etah, Bareilly, Bijnor, Budaun, Moradabad, Shahjahanpur, Pilibhit, Benares, Basti, Kheri, Fyzabad, Gonda, Sultanpur and Partabgarh.

24·63 per mille, registered, respectively, in the hill districts of Garhwal, Almora and Dehra Dun.

In rural areas the average death-rate was 39·86, as compared with 48·55 in the towns, in many of which the rates were enormously raised by the influx of the infirm and starving poor. This was particularly the case in most of the following towns, where exceptional rates were recorded:—Hardoi (108·05), Kosi (105·42), Sandila (91·06), Utraula (91·02), Pilibhit (89·71), Kunch (83·38), Orai (81·85), Fatehpur (79·98) and Lalitpur (76·84). In Hardoi the deaths from fever were very numerous, while the enormous death-rate of 46·00 per mille from dysentery and diarrhœa was recorded. These diseases caused high death-rates also in Sandila, Kunch and Fatehpur. In Pilibhit fevers were extraordinarily fatal, 88·17 per mille, and in Lalitpur, Sitapur and Fatehpur exceptionally high death-rates of 42·12, 21·57 and 20·96 per mille, respectively, were registered under the heading "All other causes." Kosi, Utraula and Orai are comparatively small towns, and the sanitary condition of the first has been the subject of a special report to the local Government. The lowest urban death-rates were 25·75, 25·13, and 24·83 per mille, recorded, respectively, in Basti, Sardhana and Bahraich.

Among the sects the highest death-rate was 40·91 per mille registered among Hindus, Muhammadans follow with 37·95, then "Other Classes" 33·51, and, lastly, Christians 11·58.

The monthly mortality, which had been above the average until May, fell to a minimum in June, when it was below the average of the previous ten years; there was a slight rise in July, and a further rise in August and September, until October, when the mortality mounted upwards; it fell slightly in November and considerably in December.

Among male infants the death-rate was 262·97 per mille, and among females 255·10; among boys and girls between one year and five years of age the millesimal rates were, respectively, 73·64 and 72·78. At all age-periods, save that between 15 and 20, the male death-rates were the higher, the excess rising generally with advancing age; and the average male death-rate was 42·06 per mille against 38·73 among females.

114. No alteration in the method in force for the registration of vital statistics was made during the year, and the comparatively high standard of efficiency attained in the Punjab in recent years was maintained, in the opinion of the provincial Sanitary Commissioner, mainly by the inspection of registers. These inspections are carried on by tahsildars, vaccinators and special divisional inspectors of registration. The work done by tahsildars seems to be of little value, so far as the detection of omissions is concerned at any rate; the inspection by vaccinators is fairly effective; and the work of the special inspectors seems to be very good. The number of *chowkidars* fined for neglect was 488,—not a very large number, but enormous in comparison with the 59, which was the total number of persons fined in the municipal towns for breach of the bye-law regarding registration.

Punjab.

The number of births registered during the year was 874,623 against 884,692 in 1896. Although the birth-rate of the year, 42·6 per mille, was slightly lower than the rate recorded in the previous year, when it was 43·04, it is considerably higher than the quinquennial mean of 40·8. The highest district birth-rates were 57·5 and 53·2, recorded in Jhang and Gujranwala, where the population has largely increased since the census of 1891 on account of the opening

of the Chenab Irrigation Canal. The next highest rate was 49·6, recorded in Karnal, and from this the rates fall until 31·4 per mille is reached in Hazara, 30·3 in Kangra, 30·5 in Peshawar and 19·3 in Simla. Hazara and Peshawar are frontier districts in which probably one-third of the births are not registered, the former shows a falling off in the improvement secured in the last few years, the latter is gradually improving. Kangra and Simla are both hill districts; in the latter, which is the only district in which the number of deaths exceed the births, there is a great excess of males in the population, a condition which obtains in Kangra also to a slight extent. As compared with 1896 the districts of Hissar, Jhelum and Gujrat show a falling off,—very marked in the case of Hissar,—due to emigration from them on account of famine.

In the province generally there were 110·5 male infants born for every 100 female infants, the percentage ranging from 141·3 in Peshawar to 105·3 in Kangra. It is curious that the extremes should both be districts in which registration is apparently most defective. Admitting that the concealment of female births is general throughout the province, it might be expected that the majority of omissions detected in the birth and death registers would refer to females. But this is not the case. Vaccinators and inspectors alike found the greater proportion of omissions referred to males; although the special inspectors found a higher proportion of omissions in registering the deaths of females. No satisfactory explanation of the excessive proportion of male births registered is given, and criticism in the light of the proportion of omissions detected in the registers is of little value, since it is not explained what exactly constitutes an omission.

The year was unusually healthy, and the number of deaths recorded fell from 648,099 to 638,227. The death-rate was 31·05 per mille against 31·53 in 1896, and a quinquennial average of 34·99. There was a notable decrease in the mortality from small-pox, which was epidemic in 1896, but this was almost exactly balanced by an increased mortality under "Fevers." There was a smaller number of deaths from cholera and from "Other causes," but dysentery and diarrhœa were more fatal.

The highest district death-rates were 50·2, 45·3 and 44·3 recorded, respectively, in Dera Ismail Khan, Hissar and Muzaffargarh. In Dera Ismail Khan and Muzaffargarh, as well as in Bannu, Karnal and Jhang, the mortality from fever in the autumn was very high. In Hissar there was scarcity, and although only two deaths from actual starvation were reported, there was exceptional mortality among young children and old persons. The lowest district death-rates were registered in Peshawar, 22·9 per mille, and in Simla and Gujrat, 21·9, respectively.

The average mortality in rural areas was 30·68, as compared with 34·44 per thousand in the towns, where cholera, dysentery and diarrhœa, and diseases classed under the heading "Other causes," were more fatal than in the country.

The highest urban death-rates were 96·12 and 78·36 per mille, recorded in Khairpur and Karor, small towns in Muzaffargarh and Dera Ismail Khan, where fevers were exceptionally prevalent. The town of Dera Ismail Khan, which comes next with 75·28, is very ill drained and fevers were exceedingly fatal. The lowest death-rates were recorded in the Miani, 15·79, Montgomery 15·12 and Abbottabad 12·93.

The Muhammadan death-rate was 31·24, and the Hindu 30·78, the relative positions of the two sects being reversed since last year. Native

Christians were reported to have died at the rate of 17·25, and "Other Classes" at the rate of 114·55. It seems clear that registration is neglected among the native Christian community, and that most of the unknown dead are returned among "Other Classes"; whenever the population of the former was considerable, the death-rates were very low; and in Delhi the number of deaths registered among "Other Classes" was more than six times the local census population of that community. By far the highest death-rates were registered in November and October when fever was rife; and the lowest rate was registered in February followed fairly closely by April and March.

Male infants died at the rate of 223·02 per mille and females at the rate of 228·02. Boys and girls below five years of age died, respectively, at the rates of 58·42 and 66·76, and at all age periods, except those between 40 and 60, the female death-rates were the higher, the total male death-rates having been 29·6 as compared with 32·7 among females.

Central Provinces.

115. The year 1897 was one of extraordinary misery in the Central Provinces. The acute distress which, in 1896, succeeded the localized scarcity of 1894 and 1895, was followed by severe famine involving nearly every district in the province. In January there were 217,62 persons receiving relief, and the number rose in May to a maximum of 691,890; in October, after a defective but well-distributed monsoon rainfall, when the new crops provided cheap food, the numbers began to fall, and, in November, those receiving aid from Government numbered only 151,446.

The number of births registered was 254,973, as compared with 301,427 in 1896; and the birth-rate, 26·83 per mille, was the lowest on record,—4·9 per thousand less than in 1896, and nearly 10 per thousand less than the low average of the preceding five years.

In 1896 the district birth-rates were generally very low, but in 1897 they were still lower in 14 districts, and the six remaining, Chhindwara, Nimar, Nagpur, Wardha, Chanda and Sambalpur, with the exception perhaps of the first named, escaped more or less from the worst effects of famine. In only one district, Sambalpur, where there had been no failure of harvests and the numbers on relief never exceeded ·035 per thousand of the population, were births more numerous than deaths; in every other district the death-rates were higher than the birth-rates. In Burhanpur and Chanda the excess of deaths over births was comparatively small, 3·59 and 6·93 per mille, but in the other districts the figures ranged from 15·21 in Nagpur and 15·39 in Chhindwara, to 80·26 in Murwara and 82·00 in Mandla. Among the districts the highest birth-rates were noted in Nimar, 46·30 per mille, Burhanpur, 40·19, Wardha, 39·83, and Sambalpur, 39·24; in only four other districts, Chhindwara, Nagpur, Chanda and Betul, were the rates over 30 per thousand. In six districts the birth-rates were less than 20 per mille, namely, Narsinghpur 19·72, Saugor 17·52, Murwara 16·79, Damoh 16·77, Mandla 16·36, and Balaghat 16·23. It is remarkable that in all these districts the percentage of male to female births was higher than the provincial average, in some cases very much so; in Saugor the percentage was 117·34, in Mandla 113·58, in Narsinghpur 113·16, in Damoh 111·26, in Murwara 108·53, and in Balaghat 108·09. In four other districts percentages above the average were recorded;—in Nimar (109·59) and Wardha (108·64), where the birth-rates were fairly high, and Jubbulpur (108·48)

and Bilaspur (109·60), where they were low. The smallest percentage noted in any district was 105·01 in Chhindwara.

In the report for 1896 we had to record a death-rate which, except in 1878, had never been nearly equalled in the Central Provinces; in 1897 the death-rate was more than 20 per mille higher than in 1896. The total number of deaths registered was 658,822, as compared with 468,469 in the previous year, and the death-rate was 69·34 per mille as compared with a quinquennial mean of 37·02. The effects of famine are clearly written in the mortuary register of every district save Sambalpur. In every district the death-rate was higher than the average of the preceding five years, and in only two were the rates lower than they were in 1896. These two exceptions were Damoh, where the enormous death-rate of 88·28 per mille was recorded in 1896, and Sambalpur, where, as has been already stated, distress was limited. Cholera was more than twice as fatal as is ordinarily the case; dysentery and diarrhœa caused more than four times the high average death-rate of recent years; and fevers, to which 59 per cent. of the total mortality was ascribed, caused a death-rate of 40·98 per mille, as compared with a quinquennial mean of 23·13. In 171 of the 233 circles of registration, the death-rates were in excess of 50 per mille, including forty-five, in which they were upwards of 90! In only one circle was the rate lower than 25, although in the other five they were less than 30.

Among the districts the highest death-rates were recorded in Mandla, 98·36, Murwara, 97·05, and Bilaspur, 95·54; the lowest were recorded in Burhanpur, 43·78, Chanda, 41·58, and Sambalpur, 30·22. High as was the average death-rate in rural areas, 68·20 per thousand, it was far exceeded in the towns where 81·57 per thousand of the census population died. In many of the towns, of course, the rates were raised by the inclusion of the deaths of starving wanderers from the surrounding country in search of food, who died in the poor-houses, orphanages and other temporary establishments where the succour of the helpless was attempted.

The effect of this migration is well seen in the difference in the proportions of the various causes of death in rural areas and in town circles of registration, although allowance must be made for the less faulty classification of disease in the latter. The millesimal death-rate from dysentery and diarrhœa in the country was 6·99, while it was 25·16 in the towns! Deaths from "All other causes" showed an excess of 9·00 per mille in the towns, as compared with the country; and, as might be expected, small-pox and injuries caused more deaths in the former. Under the heading of fevers the rural mortality was 12·92 per mille higher than the urban; and to cholera was attributed 6·11 deaths per thousand in the country, against 4·87 in the towns.

The highest death-rate in any town was 510·83 per thousand in the small town of Mungeli in the district of Bilaspur; this was followed by 313·21 in Murwara, the only town in the district of the same name. In Burha (306·73), Bilaspur (297·34), Mandla(238·87), Seoni (203·99), Khurai (264·19), Rehli (207·85), Damoh (202·59), Sehora (207·31) and Lakhnadon (285·36), rates in excess of 200 per mille were recorded. The death-rate exceeded the birth-rate in every municipal town except Pandhurna, in Chhindwara.

The lowest class death-rate was 52·61 among Muhammadans, followed by 59·72 among Hindus. Among "Other Classes," comprising the savage or half savage aboriginal tribes, the rate was 126·23 per thousand. These poor people are largely dependent on the produce of their jungles, so that they speedily feel

the effect of unfavourable seasons, and being timid and unwilling to undertake organized work at the best of times, are peculiarly difficult to assist effectively in times of famine.

Every month of the year levied a larger tribute of mortality than in 1896. The death-rate fell to a minimum of 3·51 per mille in February, and rose rapidly after March to 7·54 in June; after a slight fall in July, it rose in August, to a maximum of 8·62 in September; it fell slightly in October and rapidly in November to a millesimal rate of 3·91 in December.

Infantile mortality was enormous, reaching 403·00 and 356·11 per thousand among males and females, respectively. Boys and girls over one year and under five years of age died at the rates of 79·64 and 63·78 per thousand. At all ages the male death-rates were the higher, the average rates for males and females having been, respectively, 77·02 and 61·67 per thousand.

It is a feature of the mortality in the Central Provinces that the male death-rates are higher at all ages than the female rates; but while there is generally an approximation to equality on account of a comparative rise in female mortality at the child-bearing ages, no such rise was perceptible in 1897.

No change in the systems in force for the collection of vital statistics was made during the year; but, as evidenced by a great increase in the numbers against whom proceedings were instituted under the Act, more attention is being given to the matter in municipal towns.

Berar.

116. There was again some improvement in registration in Berar, due probably to the inspection of registers, of which a larger number were examined than in the previous year. Registration appears to be most defective in Basim and in Wun, but improvement may be looked for, as there was a considerable increase in the number of registers examined in the former district, and a great increase in the latter. In towns registration is still defective, but is improving, except in Ellichpur and Khamgaon, where greater attention on the part of the municipal authorities is required.

The number of births registered was 113,364, as compared with 109,013 in 1896, and the birth-rate, 39·7, was 1·4 per mille higher than in that year, and 2·1 in excess of the quinquennial mean. The highest district rate was 40·4, recorded in Akola, and the lowest, excepting 37·0 in Basim, where registration is bad, 39·9 in Buldana. The average birth-rate in rural areas was 39·8, the provincial average being lowered by the rates in towns, of which the average was 38·8. Some of the urban rates were high, 51·3 in Akot, 47·0 in Wadegaon, both in the Akola district, and 47·0 in Pusad, in Basim. None of the rates were very low, 31·0 per mille in Umarkhed, and 29·6 and 26·7, registered, respectively, in Ellichpur Civil Station and Ellichpur City, being the lowest.

The percentage of male to female births was 106·7, the extreme variations being 146·6 in Barsi Takli and 84·7 in Digras, both small towns in which in other respects, normal rates were registered.

There was a remarkable variation in the monthly birth-rates. Ordinarily, the largest numbers of births occur in August, September and October; in 1897, the largest numbers were recorded in February, March and July. The numbers of births in every month up to the end of July were in excess of the decennial mean; in August the numbers fell and remained below it, the falling off in December being 1,690 less than the decennial mean, and 3,651 less than in December 1896. Lieutenant-Colonel Little explains the falling off as due

to the effects of famine, which began to be felt in October 1896, diminishing fecundity; and it was observed that women driven to relief centres were rarely pregnant. This, however, does not explain the excess of births in the first part of the year.

The total number of deaths recorded was 150,222, and the death-rate, except in 1878, when it was 81·5 per thousand, was the highest on record, 52·6 as compared with 43·8 in 1896, and 39·4, the average of the preceding five years.

The highest district rate was 61·1 per mille in Amraoti, where large numbers of starving immigrants, coming from the Central Provinces in search of work and food, died. In the other districts the rates ranged from 55·5 per mille in Akola, to 42·1 in Wun.

The rural death-rate was 51·9, slightly below the provincial average, while the urban rate, 57·4, was considerably above it. In the towns the rates were raised by the influx to them of the starving poor to relief works; the same cause, of course, lowered the rural rates. The highest urban rates were 92·2 per mille in Morsi, where besides cholera, fever and dysentery and diarrhœa were exceptionally fatal, 91·3 in Pusad, and 86·0 in Talegaon, in both of which cholera was severe.

The Muhammadan death-rate was 45·8, as compared with 51·9 among Hindus, among whom the outcaste tribes are very poor. Christians died at the rate of 44·5, and "Other Classes,' mainly made up of the timid and impoverished aboriginal tribes who suffered severely from famine, at the rate of 82·7 per thousand.

The lowest death-rates were recorded in February and March, and the highest in August and September, when the wet cold weather of the monsoon proved fatal to many of those enfeebled by the effect of famine.

There was a great increase in mortality at the extremes of life. Infants, male and female, died at the rates of 395·9 and 360·9 per thousand, as compared with 273 and 233 in 1896; boys and girls under five died, respectively, at the rates of 101·1 and 91·0, as compared with 97·5 and 81·5; while old men and women, aged 60 and upwards, died at the rates of 150·3 and 127·2, respectively, as compared with 107·4 and 96·6 in the previous year. At all age-periods, save those between 10 and 30, the male rates were the higher, the average being 55·3 per mille for males and 49·9 for females.

Madras.

117. There was no alteration made during 1897 in the method in use in Madras for the collection of vital statistics, which has been described in former reports. A suggestion was made by the Deputy Director of Agriculture that birth registers should be used in rural areas to check vaccination. The adoption of this check was, it is stated, suggested by Lieutenant-Colonel King in 1891, and has been in successful operation in municipal towns in Madras since 1895.

The total number of births recorded during the year fell from 979,981 in 1896, to 935,845, and the birth-rate from 29·9 to 28·7, as compared with 27·8 per mille, the quinquennial mean. Although registration continues to be defective, the falling off in the number of births, which was recorded in fifteen districts, is believed by the Sanitary Commissioner to be due to an actual decrease in the number of children born, because of the large number of marriages postponed as a result of the native prophecy that a cycle of famine and pestilence was about to begin. The highest district rates were those recorded in Madras (Town) 41·6 per mille, Chingleput 37·1, and Kistna 34·9; and the

lowest in Godavari 25·4, Ganjam 23·9, and Malabar 20·8. The average rural birth-rate was 28·4 per mille, as compared with 32·7 in the towns.

There were 104 boys born against every 100 girls, the district percentages ranging from 109·2 in Ganjam, to 98·7 in the Nilgiris. In the former district registration is peculiarly defective; and in the latter the population is comparatively small, so that variations from year to year must be expected,—in 1896 the percentage of boys born to girls in the Nilgiris was 117·0.

The millesimal birth-rate fell from 2·3 per mille in January to the minimum of 2 in February; it gradually rose in July to 2·7, fell slightly in August and September to rise again to 2·7 in October, and then declined rapidly until the end of the year.

The number of deaths registered was 827, 525, as compared with 675,787 in 1896, and the death-rate rose from 20·6 per mille in that year to 25·4, or 5 per thousand above the quinquennial mean.

The death-rate was higher than that of the preceding year, and in excess of the mean in fifteen districts; in seven of these, Anantapur, Bellary, Cuddapah, Ganjam, Godavari, Kurnool and Vizagapatam, the presence of famine was officially recognized, and in two, Malabar and South Canara, the pinch of scarcity was felt. The highest district rates were 50·1 recorded in Ganjam, where, besides cholera, small-pox was exceedingly prevalent; 35·8 in Madras (Town), and 31·6 in Vizagapatam. The lowest district rates were 20·1, 19·5 and 19·3 recorded, respectively, in Coimbatore, Nellore and Salem. In rural areas the average death-rate was only 24·8, as compared with 31·9 in the towns. Among the latter, the highest rates were recorded in Cannanore, 56·8 per mille, where the high-rate was largely due to great mortality—28·5 per mille, from cholera; 53·2 in Kurnool due to fevers and 'Other causes'; and 50·5 in Calicut, where cholera was rife. The lowest urban rates were 9·8, 9·7 and 7·3 registered, respectively, in Shendamangalam, Samalkot and Ambur.

The Muhammadan death-rate, 27·3 per mille, was the highest, followed by that of the Hindus, who constitute about 90 per cent. of the population, with 25·5; Native Christians died at the rate of 17·9 and "Other Classes" at the rate of 12·5.

The smallest numbers of deaths were registered in February, March and April in the order given; and the largest numbers in August and December.

The death-rates of infants were 148·9 and 124·2 per mille of males and females, respectively, a slight reduction as compared with 1896 in the case of males, due, no doubt, to the decrease in the number of infants born, for there was a notable increase in the mortality at all other age-periods, the numbers of boys and girls under five who died rising from 24·9 and 22·8 per mille, respectively, to 30·2 and 28·3. At all age-periods, save those from 15 to 29, the male death-rates were the higher, the average being 26·4 per mille for males, against 24·4 for females.

In the death-rates of the sexes in the age-periods, 20 to 29 and 30 to 39, there is a curious departure from the normal proportions as determined by the death-rates of the past five years. In the earlier age-period, while the male rate is slightly increased, in harmony with the general rise in mortality, there is a disproportionate increase in the female rate. In the later age-period conditions were reversed, the female death-rate is normal, and that of males greatly increased.

Coorg.

118. The total number of births recorded in Coorg was 3,503, a decrease of no less than 1,103 as compared with the number recorded in 1896; and the birth-rate fell from 26·62 in that year to 20·24, against a quinquennial average of 24·18. Regis-

tration is admittedly defective, and the excess of males among the population is nearly 20 per cent., but as there is no reason to believe that the registration of vital statistics became more defective during the year, or that the female population decreased, it must be concluded that there was a remarkable falling off in the number of children born. The rates in the various districts varied from 15·36 per mille in Yedenalknad, where the disparity in the numbers of the sexes is greatest, to 26·12 in Nanjarajpatna, where it is least. The percentage of male to female births was 100·74, as compared with 97·68 in 1896, and ranged from 108·14 in Merkara Taluk, to 93·63 in Kiggatnad.

The year was a remarkably unhealthy one, and a severe form of fever, described as malarial, attacked rich and poor alike and proved exceedingly fatal. The number of deaths registered was 8,658, by far the largest number ever recorded, and 4,084 more than in 1896.

The death-rate was 50·03 per thousand, against 26·43 in the previous year, and 27·19, the quinquennial mean. The death-rate was higher than the birth-rate in every taluk, and ranged from 34·45 in Kiggatnad, to 66·47 in Padinalknad. In rural areas the death-rate rose from 25·84 in 1896 to 48·84 per mille, as compared with a ratio of 62·15 in the five towns, where the average rate in 1896 was 32·43. In the towns many coolies from Malabar, South Canara and Mysore died in hospital, so that the urban death-rate is exaggerated.

Among Hindus who form the bulk of the population, the millesimal death-rate was 48·84; among Muhammadans it was 49·82; and among the small population of "Other Classes," 103·53. The number of deaths fell to a minimum in February, gradually rose to a maximum in July, and then declined, with the exception of a slight rise in October, to the end of the year.

The death-rate among infants was 359·85 per mille among males, and 331·37 per mille among females, as compared with 260·89 and 230·87, respectively, in 1896. There was a great rise in the death-rates of children under five, from 34·09 and 30·28 per mille for boys and girls, respectively, in 1896, to 77·06 and 78·41 in 1897. The female death-rate was 51·94, or 3·45 higher than the male, and only in infancy and in the age-periods, 5 to 10 and 40 to 50, were the male rates the higher.

Bombay.

119. The total number of births registered in the Presidency of Bombay including Sind, was 629,693, as compared with 691,847 in the previous year; and the birth-rate fell from 36·76 per mille in 1896, to 33·46, or 2·05 per mille below the quinquennial average. The birth-rates were lower than in 1896 in all the registration districts, and in only three of the 24 collectorates, Thana, Thar and Parkar, and Upper Sind Frontier were they higher. In Thana the total rate was considerably higher than the average of the previous five years, while the urban rate was lower than in 1896, which suggests that the increase in the rural areas may be due to immigration of women from plague-stricken centres.

The highest district rates were 44·11, 42·39 and 41·73 per mille, recorded, respectively, in Khandesh, Broach and Nasik; the lowest were 26·37 in Karachi, 18·05 in Hyderabad, and 11·29 in Bombay City.

The rural birth-rate was 34·66 against 24·85 in the towns. Among the latter the highest rates were recorded in Vengurla 56·22, Sangamner 55·68 and Kapadvanj 54·17, while the lowest rates were registered in Thana 14·61, Bombay 11·29 and Poona 10·44, in all of which plague was severely epidemic.

The percentage of male to female births was 108·42, ranging from 135·0 in Hyderabad, to 102·49 in Panch Mahals.

The total number of deaths registered was 749,916, as compared with 556,472 in the previous year, and the death rate was 39·84 per mille, as com-

pared with 31·69 in 1896, and, 30·45, the quinquennial average. In accounting for the rise in the death-rate two factors must be taken into account—the presence of famine and the epidemic of plague. As a result of the famine, cholera was more rife than usual, and caused 3·03 deaths per thousand of the population, as compared with a quinquennial average of 1·48, and dysentery and diarrhœa were exceedingly fatal, giving rise to a death-rate of 4·57 per mille, against an average in the preceding five years of 1·85. The epidemic of plague not only occasioned a recorded death-rate of 2·49 per thousand, but many plague deaths were registered under some other heading, and the special exertions made to detect cases stimulated the registration of deaths from all causes. It would be useful as well as interesting to ascertain the actual death-rate from plague, but defects in registration and the peculiar conditions of the year render this difficult, if not impossible. The registered excess of the total mortality in 1897 over the mean of the preceding five years was 9·39 per mille. From this must be deducted the excess attributed to cholera (1·55), dysentery and diarrhœa (2·72), small-pox (·01) and injuries (·05), which aggregate 4·33 per mille. The balance, 5·06, must be divided among "Fevers" and "All other causes." The fever death-rate in 1897, which includes deaths from plague, was 24·05,* or 2·49 per mille more than the quinquennial average of 21·56; and 2·49 is very curiously exactly the recorded millesimal death-rate from plague. The mortality registered in 1897 under "Other causes" in excess of the five years' mean was 2·58. In other provinces where there was scarcity but no plague, fever death-rates have been raised, so it may be concluded that had there been no famine in Bombay, the fever death-rate would not have been much higher than normal in spite of the plague; and, indeed, meteorological conditions favoured a low fever death-rate. If to plague is assigned all the excess mortality under "Fevers" (2·49) and "Other causes" (2·58), the actual death-rate from plague would be over 5 per mille, which would mean that rather less than half the actual number of deaths from plague were recorded as due to that disease.

The highest district death-rates were 58·89 per mille in Bombay City, 56·95 in Poona, 55·64 in Nasik and 54·92 in Satara, in all of which plague was virulently epidemic; the lowest were 21·11 per mille in Panch Mahals, —one of the two districts where no plague death was registered—19·86 in Thar and Parkar, and 15·92 in Hyderabad. In Thar and Parkar there were only two deaths attributed to plague, but there were 499 in Hyderabad, both are in Sind, where registration is defective.

The rural death-rate was 37·49 per mille, as compared with 56·72 in the towns. Among the latter, the highest death-rates were 148·78, 100·97 and 99·73 per mille, registered, respectively, in Karad, Sholapur and Nasik, due in the first two cases to high rates under fever, and in Nasik to a comparatively high fever rate and the enormous rate of 22·65 per mille under dysentery and diarrhœa. The lowest urban death-rates were 26·14 in Kumta, 21·77 in Karwar, both in Kanara, a district in which plague did not appear, and 10·63 in Ahmedabad Cantonment.

Among the various sects, the Hindus had the highest death-rate, 42·64, then the Christians, 37·74, Parsis followed with 32·56, and then Muhammadans with 30·14. The considerable population, 224,773, of "Other Classes," including Buddhists, Jews, Sikhs, and "unspecified," died at the rate of only 9·95 per mille. It is obvious, from an examination of Annual Form V, that this is absurdly wrong, and is due to deaths among "Other Classes" being credited to some other section,

* This figure is taken from Provincial Statement IX. In Statement VI the fever mortality is given as 24·59—a difference of ·54 per mille seemingly taken from the death-rate under "All other causes."

e.g., in the district of Broach the population of "Other Classes" is 17,828, and in Panch Mahals it is 11,086, but no death was registered among them; while in the same districts, three deaths occurred among an aggregate Christian population of 136.

The monthly death-rate fell to a minimum in February, and then rose gradually to a maximum in August, fell rapidly in September, and afterwards gradually until the end of the year.

Infants died at the rates of 212·77 males and 188·43 females per mille; and boys and girls between the ages of one year and five years at the rates of 64·18 and 60·77 per mille. At all ages, save from 5 to 19, the death-rates of males were higher than those of females, the differences increasing with advancing years, the average male death-rate being 40·68 as compared with 38·95 among females.

Burma.

120. Registration is in force throughout Lower Burma, except in the Northern Arakan and Salween districts, and in parts of the Akyab, Bassein, Thayetmyo and Toungoo districts; the census population concerned comprising 2,388,758 males and 2,126,015 females. In Upper Burma registration, in 1897, was confined to the populations of the towns of Mandalay, Myingyan, Pyinmana and Yamethin, aggregating 227,310 souls; but the registration of births and deaths is about to be gradually introduced into other towns, and the registration of deaths into all the more populous and civilized areas. The system in force in Lower Burma, whereby registration is carried out in municipalities and towns by special paid registrars or ward headmen, in villages by headmen appointed under the Lower Burma Village Act, and in rural areas by the police, continued in force; but amended rules to fix responsibility and simplify procedure were issued in April 1897.

The total number of births recorded during the year was 143,659, about two thousand fewer than in the preceding year, and the birth-rate was 31·82 per mille, against 32·27 in 1896. There seems to be no reason to fear that the improvement in the registration of vital statistics which has been brought about in recent years is not to be maintained, for although lower than that of 1896, the birth-rate of 1897 is higher than that recorded in any previous year, and is 3·86 per mille in advance of the quinquennial mean.

The highest district birth-rates were 40·97, 40·43 and 38·83 per mille recorded, respectively, in Sandoway, Pegu and Myaungmya, and the lowest 27·18, 26·52 and 17·61 in Amherst, Thâton and Rangoon Town district. In view of the low district rate recorded in the Thâton district, it is remarkable that in the town of the same name the birth-rate should be the second highest, 38·21 per mille, being preceded only by the town of Kawkareik, where the birth-rate was 47·79.

In the province as a whole 108 male children were born for every 100 female children, the rates varying from 116 in Rangoon Town district to 104 in Sandoway. Among the various communities there was great variation in the percentage of males born as compared with females, 115 among Christians, 109 among Hindus, 108 among Burmese and among "Other Classes," and 104 among Muhammadans. These variations seem to have no relation to the birth-rates, which ranged from 33·47 among the Burmese to 21·32 among Christians, and 8·57 per mille among Hindus.

In the province as a whole the largest number of births was recorded in December, and the least in April.

The total number of deaths registered was 118,570, against 106,687 in 1896, and the death-rate, which was the highest on record, was 26·26 per mille as compared with 23·63 in the previous year, and 22·27, the quinquennial mean.

In the districts the highest rates were 38·33, recorded in Rangoon Town district, 36·73 in Pegu, and 32·61 in Myaungmya; while the lowest were 18·94

recorded in Thâton, 18·11 in Tavoy, and 14·44 in Mergui. In rural areas the average death-rate was 25·33 against 32·34 in the towns, where the rates ranged from 43·89 and 38·24 per mille in Zigon and Myaungmya, respectively, to 17·87 in Shwedaung, 17·76 in Mergui, and 15·87 in Thônzé.

Of the sects, the Hindus had the highest death-rate, 31·51 per mille, and the Christians the lowest, 15·21, "Other Classes" occupying an intermediate position with 23·38; the rate among the Burmese was 26·68, and among Muhammadans 20·85.

The lowest mortality was recorded in February, the differences in the other five months of the first half of the year being slight; there was a sudden rise in the death-rate in July, when the largest number of deaths was registered, and a slight gradual fall until December, when the number of deaths again began to rise.

Among male infants the death-rate per thousand living was 269·24 as compared with 188·24 among females, both a considerable advance on the rates in 1896; a similar advance in the mortality was recorded among boys and girls between one year and five years of age, the rates having been, respectively, 35·66 and 30·53, against 33·60 and 28·57 in the previous year. The average death-rate among males was 27·76 against 24·58 among females, and at every age-period, except from 30 to 40, the male rates were the higher.

Military Cantonments.

121. The mortality among the native population of the Cantonments in the four commands of India and in the Hyderabad Assigned Districts is shown in the following statement:—

Death rate amongst Natives in the Cantonments of the four Commands of India and in the Hyderabad Assigned Districts during 1897.

Cantonments.	Died per 1,000 of population.	Cantonments.	Died per 1,000 of population.	Cantonments.	Died per 1,000 of population.
Fort William	14·7	Kamptee	33·0	Calicut	62·5
Alipore	19·6	Nowgong	48·7	Quilon	12·9
Dum-Dum	16·3	Deoli	14·8	Bellary	2·2
Barrackpore	21·1	Delhi	22·9	Trichinopoly	13·0
Darjeeling	34·4	Umballa	17·6	St. Thomas' Mount	24·1
Buxa	3·6	Kasauli	37·4	Pallavaram	13·8
Doranda	63·6	Dagshai	33·1	Vizianagram	15·1
Dinapore	17·7	Subathu	28·6	Berhampur	1·2
Cuttack	19·7	Jutogh	37·7	Maymyo	17·5
Cachar	6·6	Jullundur	10·2	Wellington	8·0
Shillong	18·3	Dharmsala	27·6	Poonamallee Depôt	17·5
Dibrugarh	24·0	Amritsar	9·5	Jacobabad	25·8
Kohima	50·0	Dalhousie	25·9	Hyderabad	20·4
Chakrata	19·2	Bakloh	16·8	Kurrachee*	...
Landour	12·8	Sialkot	8·3	Neemuch	28·1
Dehra Dun	15·3	Meean Meer	11·7	Mhow	56·3
Roorkee	19·5	Ferozepore	15·5	Deesa	32·9
Meerut	26·2	Rawalpindi	7·2	Ahmedabad	18·5
Naini Tal	17·5	Campbellpore	13·3	Rajkot	33·8
Ranikhet	16·3	Fort Attock	4·8	Bhuj	18·9
Almora	10·6	Murree	42·1	Baroda	38·1
Lansdowne	28·1	Jhelum	9·5	Sambalpur	22·6
Bareilly	14·0	Mooltan	13·0	Kamptee	30·3
Moradabad	3·5	Dera Ismail Khan	8·2	Raipur	45·9
Shahjahanpur	23·3	Dera Ghazi Khan	22·9	Malegaon	50·3
Fatehgarh	26·1	Edwardesabad	24·7	Ahmednagar	32·6
Agra	31·6	Peshawar	7·7	Sirur	25·0
Muttra	25·0	Nowshera	13·1	Poona	70·8
Cawnpore	25·8	Murdan	7·4	Kirkee	92·6
Allahabad	20·0	Abbottabad	6·3	Satara	3·3
Jhansi	19·2	Kohat	12·2	Quetta	16·2
Benares	16·3	Rangoon	24·2	Purandhur	7·6
Gorakhpore	10·8	Thayetmyo	25·3	Deolali Depôt	31·0
Lucknow	19·4	Meiktila	4·2	Ellichpur†	...
Fyzabad	15·1	Mandalay	32·6	Aurangabad	26·0
Sitapur	37·8	Bhamo	6·1	Jalna	25·4
Saugor	35·0	Shwebo	7·8	Hingoli	27·8
Asirgarh	...	Fort Stedman	6·0	Mominabad	30·5
Jubbulpore	32·1	Secunderabad	17·2	Bolarum	34·8
Pachmarhi	114·6	Cannanore*	...	Raichur	29·3

* Population not available. † Vacated from March 1897.

Appendix to Section V.

Statement No. I.—*Births.*

Province.	Population under registration.	Ratio of Births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.
		Maximum for any one district.	Minimum for any one district.	Mean for the Province.			
Bengal	71,069,617	47·40	18·46	36·94	106	4·00	...
North-Western Provinces and Oudh	46,904,791	50·74	13·76	31·10	108·98	...	9·36
Punjab	20,553,982	57·5	19·3	42·6	110·5	11·5	...
Central Provinces	9,501,401	46·30	16·23	26·83	107·76	...	42·51
Berar	2,852,825	40·4	37·0	39·7	106·7	...	12·9
Lower Burma	4,514,773	40·97	17·61	31·82	108	6	...
Assam	5,021,084	45·12	19·77	32·59	108·13	...	18·02
Madras Presidency	32,598,301	41·6	20·8	28·7	103·9	3·3	...
Bombay „	18,820 346	44·11	11·29	33·46	108·42	...	6·38
Ajmere-Merwara	542,358	42·33	31·23	33·69	112·40	9·01	...
Coorg	173,055	26·12	15·36	20·24	100·74	...	29·79
Mysore	4,843 523	22·13	14·62	17·15	102·77	...	·79

Statement No. II.—*Deaths.*

Province.	Population under registration.	Area in square miles.	Average population per square mile.	Ratio of Deaths per 1,000 of population.			Death-rate per 1,000.	
				Maximum for any one district.	Minimum for any one district.	Mean for the Province.	Male.	Female.
Bengal	71,069,617	144,408	492	49·46	23·88	32·94	35·87	30·03
North-Western Provinces and Oudh	46,904,791	107,777	435	62·07	23·67	40·46	42·06	38·73
Punjab	20,553,982	110,463	186	50·2	21·9	31·1	29·6	32·7
Central Provinces	9,501,401	71,582	133	98·36	30·22	69·34	77·02	61·07
Berar	2,852,825	16,068	177	61·1	42·1	52·6	55·3	49·9
Lower Burma	4,514,773	77,479	58	38·33	14·44	26·26	27·76	24·58
Assam	5,020,084	29,433	170	61·18	41·72	50·61	51·20	49·97
Madras Presidency	32,598,301	124,943	270	50·1	19·3	25·4	26·4	24·4
Bombay „	18,820 346	124,130	151	58·89	15·92	39·84	40·68	38·95
Ajmere-Merwara	542,358	2,711	200	26·08	24·28	24·68	24·04	25·41
Coorg	173,055	1,583	109	66·47	34·45	50·03	48·49	51·94
Mysore	4,843,523	27,924	173	26·51	13·37	17·94	18·43	17·46

Statement No. III.—*Deaths in Towns and Rural Circles compared.*

Province.	Number of Registration Circles.			Population.			Deaths per 1,000.		
	Rural.	Town.	Total.	Rural.	Town.	Total.	Rural.	Town.	Total.
Bengal	557	148	705	67,625,105	3,444,512	71,069,617	32·83	35·09	32·94
North-Western Provinces and Oudh	1,215?	97?	1,312	43,693,982	3,210,809	46,904,791	39·86	48·55	40·46
Punjab	447	151	598	18,540,013	2,013,969	20,553,982	30·67	34·44	31·05
Central Provinces	161	72	233	8,689,691	811,710	9,501,401	68·20	81·57	69·34
Berar	67	38	105	2,496,823	356,002	2,852,825	51·9	57·4	52·6
Lower Burma	181	35	216	3,926,404	588,369	4,514,773	25·33	32·34	26·26
Assam	59	21	80	4,914,687	106,397	5,021,084	50·26	66·71	50·61
Madras Presidency	179	93	272	30,060,268	2,538,033	32,598,301	24·8	31·9	25·4
Bombay „	220	63	283	16,515,973	2,304,373	18,820,346	37·49	56·72	39·84
Ajmere-Merwara	17	6	23	418,206	124,152	542,358	20·81	37·73	24·68
Coorg	5	5	10	157,544	15,511	173,055	48·84	62·15	50·03
Mysore	48?	20	508?	4,543,830	299,693	4,843,523	17·82	19·81	17·94

STATEMENT NO. IV.—*Deaths according to age.*

PROVINCE.	RATIO PER 1,000.																			
	Under 1 year.		1 year and under 5 years.		5 years and under 10 years.		10 years and under 15 years.		15 years and under 20 years.		20 years and under 30 years.		30 years and under 40 years.		40 years and under 50 years.		50 years and under 60 years.		60 years and upwards.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Bengal . .	239·11	194·41	45·79	38·72	19·34	15·65	16·08	13·12	20·47	18·50	22·43	18·71	24·59	19·14	31·99	23·26	46·73	37·35	83·66	61·74
N.-W. Provinces and Oudh .	262·97	255·10	73·64	72·78	20·24	17·68	12·20	11·45	14·65	18·63	19·96	18·32	27·68	21·41	43·66	33·73	68·01	50·55	85·40	57·51
Punjab . .	223·02	228·02	58·42	66·76	10·01	10·81	6·86	8·59	7·47	9·66	9·35	10·98	12·44	14·00	18·42	16·91	29·37	26·39	89·69	91·74
Central Provinces	403·00	356·11	79·64	63·78	45·05	35·48	31·52	25·93	46·33	35·69	48·31	33·42	66·43	47·76	87·18	64·56	122·14	96·80	183·11	141·88
Berar . . .	395·9	360·9	101·1	91·0	24·8	21·6	14·3	15·3	15·3	16·8	19·8	20·6	27·8	24·8	46·8	28·2	79·6	55·7	150·3	127·2
Lower Burma .	269·24	188·24	35·66	30·53	15·51	13·08	10·20	8·61	13·37	11·79	14·48	14·45	19·62	20·43	23·73	20·48	31·81	26·32	64·83	60·67
Assam . .	251·81	236·42	62·40	61·46	31·08	26·46	27·60	26·72	37·80	42·48	35·16	39·3·	40·05	39·59	48·52	40·27	63·92	58·27	111·57	92·36
Madras Presidency	148·9	124·2	30·2	28·3	13·0	11·9	10·3	10·1	12·5	15·6	10·6	14·0	17·4	11·0	22·9	17·5	35·6	29·3	59·4	54·1
Bombay ,, .	212·77	188·43	64·18	60·77	18·63	18·90	15·74	17·70	16·29	17·81	21·03	20·98	27·78	25·40	38·62	28·24	57·48	43·15	125·91	112·70
Ajmere-Merwara	217·47	201·53	40·27	42·03	5·15	5·75	5·00	6·14	6·43	12·36	9·25	12·01	12·61	11·64	20·16	16·27	43·13	38·17	55·48	49·05
Coorg . .	359·85	331·37	77·06	78·41	24·40	21·57	16·96	19·69	23·02	23·38	31·85	36·83	43·13	44·02	56·00	50·11	78·71	86·43	120·72	124·64
Mysore . .	83·65	69·88	21·45	16·46	10·81	9·10	12·65	14·60	16·06	19·65	12·17	12·37	13·68	12·48	17·24	15·57	25·26	24·49	49·63	38·21

STATEMENT NO. V.—*Deaths according to Cause.*

PROVINCE.	DEATHS PER 1,000 IN 1897.							Deaths per 1,000 in 1896.	Deaths per 1,000 in 1895.
	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa.	Injuries.	All other causes.	All causes.		
Bengal	2·76	·27	23·62	·75	·59	4·92	32·94	34·17	31·39
N.-W. Provinces and Oudh . .	·94	1·86	31·21	1·25	·71	4·48	40·46	33·32	29·13
Punjab	0·03	0·78	20·57	0·77	0·35	8·54	31·05	31·53	29·29
Central Provinces	6·01	0·38	40·98	8·53	0·79	12·64	69·34	49·31	36·75
Berar	3·5	0·2	23·0	10·3	0·5	15·1	52·6	43·8	49·9
Lower Burma	1·89	·43	11·46	1·95	·25	10·28	26·26	23·63	22·40
Assam	6·62	1·08	28·74	4·61	0·53	9·03	50·61	36·33	33·72
Madras Presidency . . .	4·4	0·7	9·0	1·2	0·3	9·8	25·4	20·6	19·6
Bombay ,, ...	3·03	0·20	24·59	4·57	0·37	7·08	39·84	31·69	28·61
Ajmere-Merwara	0·04	0·29	20·07	0·81	0·47	3·00	24·68	28·25	26·95
Coorg	0·61	0·34	41·50	3·11	0·35	4·12	50·03	26·43	29·31
Mysore	·88	1·47	9·72	1·47	·22	4·18	17·94	14·21	13·69

STATEMENT NO. VI.—*Deaths from All Causes according to Months.*

PROVINCE.	RATIO PER 1,000.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bengal .	2·30	2·05	2·97	2·66	2·53	2·28	2·41	3·34	2·80	2·70	3·81	3·02	32·94
N.-W. Provinces & Oudh	3·07	2·68	3·11	3·19	2·89	2·58	2·78	3·34	3·86	5·01	4·40	3·54	40·46
Punjab .	2·15	1·68	1·78	1·74	2·04	2·03	1·89	2·01	2·78	4·28	4·80	3 87	31·05
Central Provinces .	3·85	3·51	3·83	4·04	5·93	7·54	6·46	8·50	8·62	7·58	5·56	3·91	69·34
Berar . .	2·1	1·8	2·0	2·7	3·9	3·7	4·6	9·0	9·0	6·8	4·0	3·0	52·6
Lower Burma	1·95	1·79	1·91	1·97	1·95	1·92	2·78	2·60	2·38	2·24	2·23	2·55	26·26
Assam .	2·76	2·49	3·08	3·41	4·39	4·86	5·24	4·73	4·51	4·97	5·33	4·84	50·61
Madras Presidency .	2·4	1·6	1·6	1·5	1·7	2·0	2·4	2·5	2·3	2·5	2·2	2·7	25·4
Bombay Presidency .	2·71	2·53	2·89	3·00	3·18	3·22	4·02	4·38	3·78	3·65	3·46	3·02	39·84
Ajmere-Merwara .	1·66	1·36	1·50	1·64	2·01	1·55	1·21	2·16	2·95	3·37	2·70	2·54	24·68
Coorg . .	2·83	2·29	3·01	3·15	4·90	5·96	6·69	5·99	3·91	4·11	3·66	3·53	50·03
Mysore .	1·38	1·08	1·23	1·22	1·31	1·33	1·61	1·50	1·57	1·61	1·93	2·17	17·94

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SECTION VI.

GENERAL POPULATION.

HISTORY OF CHIEF DISEASES.

Cholera.

122. There is nothing new to record bearing upon the microbial origin of cholera; but allusion may be made to the connection established by Dr. E. Klein between the bacillus enteritidis sporogenes discovered and named by him in 1895,* and some cases of cholera *nostras*.

Cholera.

The bacillus is an anaërobic microbe, probably derived primarily from excrement and widely distributed in nature. It is particularly abundant and virulent in animal excreta and substances contaminated therewith, so that Dr. Klein has come to look upon the discovery of its presence in water as a more trustworthy criterion of direct fæcal pollution than the presence merely of bacillus coli.†

Milk forms an exceedingly favourable medium for the culture of bacillus enteritidis sporogenes; and, although the virulency of the microbe varies, the spores are frequently to be found in milk exposed for sale in London even after the milk has been subjected to the ordinary trade process of "sterilization." Dr. Klein took a sample from a bottle of "pure sterilized milk", heated it to 80°C. (176°F.) for 15 minutes, and then incubated it anaërobically at the body temperature, when it yielded a pure culture of the virulent bacillus.

Dr. Klein states, however, that the spores are destroyed by direct boiling in from three to five minutes.

The experience of the year teaches little that is new in the prevention and treatment of epidemic outbreaks of cholera in India. The old lessons are repeated; cholera cannot be prevented by any single precaution, and no possible precaution should be omitted; when the disease appears in epidemic form, prompt movement, intelligently carried out, is the most effective check.

The experience of the North-Western Provinces is encouraging, for it serves to show that even in a year of famine, well devised measures for preventing

* Report of the Medical Officer of the Local Government Board, 1895-96, Appendix B-1.
† Report of the Medical Officer, 1897-98, p. xx, and Appendix B-1.

the occurrence and checking the continuance of epidemics, carried out on a carefully organized plan, will not only save the lives of many relief workers, but will prevent their becoming a source of danger to the general public.

Experiments in the prevention of cholera.

123. The two experiments in cholera prophylaxis by the disinfection of water-supplies and anti-cholera inoculation, to which allusion was made in this Report for 1896, were continued during 1897.

Disinfection of water-supply.

124. The disinfection of wells by means of permanganate of potash was practised systematically in most provinces, and the results are generally considered to have been satisfactory, although in view of the fact that it is impossible to say that the disease would not have ceased in any case and the difficulty in disinfecting every source of water-supply, it is very hard to obtain evidence of a conclusive character.

The only circumstantial account of the effect of the measure is to be found in the Bengal Sanitary Report. The Civil Surgeon of Lohardaga carefully recorded the result of the disinfection of four wells in the town of Ranchi. In each case after the disinfection of the well only one case of cholera occurred among the people using the water.

In the North-Western Provinces and Oudh permanganate of potash was used to purify the wells in relief camps, not only in the presence of cholera but whenever there was any doubt regarding the quality of the water. The Sanitary Commissioner thinks there can be no doubt about the utility of the proceeding, but states that experience shews that if it is to be effective, it must be practised every three or four days.

In the Central Provinces the disinfection of water-supplies was generally used and most of the Civil Surgeons considered it beneficial, although there is some divergence of opinion among them. The Civil Surgeon of Mandla, where cholera was exceedingly severe, states that, "the use of the permanganate of potash never failed to control and quickly stamp out the most virulent epidemic." On the other hand, the Civil Surgeon of Bilaspur states that wells were disinfected, "but with no apparent effect on the course of the disease," which he suggests may be explained by the impossibility of disinfecting the great number of sources of supply.

The Sanitary Commissioner in summing up the evidence writes, "The application in fact of permanganate of potassium to ordinary unprotected water-supplies does not, it may be definitely stated, much or materially diminish the risk of cholera infection in epidemic times."

In Berar, the general opinion was that the use of permanganate had a beneficial effect, but it is pointed out that the number of wells in a Berar village or town renders systematic disinfection almost impossible.

In Madras the purification of water-supplies, when small, by permanganate of potassium, and when large, by lime or alum, was freely practised. Although the people sometimes objected to the red colour produced by the permanganate, in most districts the people as well as the medical officers regard its use with favour.

Anti-cholera inoculation.

125. Preventive inoculation against cholera was carried on in Bengal throughout the year, and 10,950 persons were operated on, mostly coolies on their way to the tea districts of Assam and Cachar.

No complete statistics regarding the efficacy of the inoculations have been obtained, but such facts as were recorded are in favour of inoculation.

Cholera was extraordinarily prevalent in 1897 among the coolies on their way to the labour districts in Assam and Cachar, and it is possible to compare roughly the mortality among the inoculated and uninoculated among the general body of immigrants on their way to the former. Confining the calculations to deaths which occurred between the ports of embarkation and the tea gardens, it appears that the general cholera death-rate was 16·7 per mille, and that the death-rate among inoculated coolies was 4·9 per mille. There are probably other circumstances besides inoculation to be taken into account; but it seems likely that, in the future, the data will be more complete, for the Chief Commissioner of Assam has prescribed a half-yearly return to be prepared by managers of tea gardens, in which will be shewn the deaths from cholera on the gardens among uninoculated persons and among inoculated persons, (1) within six months, (2) between six and twelve months, (3) between one and two years, and (4) after two years from the date of inoculation.

It was stated that a large number of the men of the Shropshire Regiment, among whom there was a very severe outbreak of cholera at Sitapur in September, had been inoculated by M. Haffkine at Fort William in 1896. An examination of the medical history sheets, however, shewed that if more had been inoculated, the operation was recorded in 27* cases only. The number of men at Sitapur when the epidemic began was 435; of these 65 were attacked and 41 died of cholera. Among the 27 inoculated men four were attacked and two died. So that among the uninoculated the percentage attacked was 14·9 and the case-mortality about 63 per cent., while among the inoculated the percentage attacked was 14·8 and the case-mortality 50 per cent.

Anti-cholera inoculation was carried out during the epidemics in the jails at Hazaribagh and Ranchi, but, although none of the inoculated were attacked, it does not seem that anything can be proved regarding the protective effect of the proceeding.

The medical officer of the jail at Ranchi found that of 335 inoculated 31·3 per cent. gained weight after the operation, 45·3 lost weight, and 23·3 neither lost nor gained.

The distribution of cholera in India.

126. The total number of deaths registered as due to cholera throughout India and Burma in 1897, was 555,035, as compared with 471,779 in 1896. During the last twenty years the cholera mortality of 1897 has been exceeded on only three occasions; in 1877, when the number of deaths was 635,977 including the enormous total of 357,430 deaths in Madras; in 1891, when the deaths numbered 582,081; and in 1892, when the total reached 727,493. Deaths from cholera were less numerous in 1897 than in the preceding year in Bengal, the North-

* This figure is misprinted 2 in the official account, the original manuscript shews 27.

Western Provinces and Oudh, the Punjab, Berar, Rajputana and Central India; in all the other provinces deaths were more numerous than in 1896; and in Madras, Bombay, the Central Provinces and Assam the mortality was quite exceptional.

The following statement shews the total numbers of deaths ascribed to cholera in every province in India in each year from 1877 onwards :—

Statement showing the deaths from CHOLERA in the different Provinces in India from 1877 to 1897.

Year.	Bengal.*	Assam.	N.-W. P. and Oudh.	Punjab.	Central Provinces.	Berar.	Rajputana.	Central India.	Bombay.	Hyderabad.	Madras.	Mysore.	Coorg.	Lower Burma.	Ajmere-Merwara.
1877 . .	155,305	11,377	31,770	29	3,418	842	60	926	57,228	7,414	357,430	2,902	‡	7,376	11
1878 . .	95,192	6,732	23,221	215	40,985	34,306	2,393	8,047	46,743	6,696	47,167	723	49	6,759	210
1879 . .	130,363	17,415	35,892	26,135	27,575	223	918	2,734	6,937	6	13,296	14	...	1,828	120
1880 . .	39,643	2,803	71,546	274	330	1	...	299	684	...	613	25	...	2,638	3
1881 . .	79,180	5,010	25,865	5,207	9,149	3,404	197	581	16,691	1,721	9,446	25	3	5,739	16
1882 . .	182,353	21,055	89,372	39	21,932	3,573	1,387	1,562	7,904	150	23,604	893	31	7,177	289
1883 . .	90,439	14,908	18,160	190	16,235	27,897	797	1,740	37,654	1,947	56,284	124	...	2,185	87
1884 . .	134,422	22,376	30,143	614	149	87	1,297	1,018	13,804	2,479	75,476	330	...	5,515	227
1885 . .	173,707	7,753	63,457	1,936	21,868	3,683	1,615	4,624	32,387	1,387	58,109	2,677	...	7,683	100
1886 . .	118,368	20,188	34,565	12	16,679	976	273	390	167	499	12,417	10	...	4,037	765
1887 . .	172,578	7,941	200,628	8,804	12,576	14,396	2,612	8,868	25,711	2,836	28,359	832	3	2,649	384
1888 . .	111,391	9,693	18,704	14,938	921	305	32	191	36,300†	2,057	58,677	1,015	2	15,981	13
1889 . .	171,103	18,188	48,404	2,838	52,588	10,925	6,923	3,144	32,431	1,128	76,020	‖ 1,590	9	3,240	55
1890 . .	145,885	15,396	80,295	3,401	4,787	847	3,746	3,132	3,259	...	35,288	1,326	5	1,076	408
1891 . .	229,575	23,882	169,013	10,107	21,312	7,958	2,946	13,474	17,850	3,102	98,773	1,304	7	2,400	532
1892 . .	259,398	21,552	194,886	75,959	39,972	3,030	26,760	8,384	42,900	53	79,033	5,497	58	6,208	2,351
1893 . .	126,976	21,849	13,154	639	557	1,188	314	127	18,853	165	32,209	680	9	2,393	3
1894 . .	236,150	13,497	178,079	113	7,043	3,452	2	5,210	33,588	1,862	42,289	328	8	7,428	...
1895 . .	177,087	18,962	51,562	549	15,506	11,919	1,049	6,043	8,890	467	21,172	2,334	...	5,150	289
1896 . .	226,824	17,042	69,147	5,146	51,985	12,264	3,797	15,766	35,404	525	47,847	2,100	49	2,059	11
1897 . .	196,247	33,240	44,808	622	57,131	10,122	1,496	13,202	57,109	1,039	143,445	4,248	106	8,538	19

* Excluding Calcutta from 1877 to 1892. † Including four deaths, the monthly distribution of which is not known. ‡ Statistics not available.

In the following statement the season distribution of the disease in the different provinces is exhibited. It will be observed that in the country generally, August, June and July, in the order given, were the months of greatest

prevalence; while, as in 1896, the mortality was least in February, January and November:—

Statement showing the deaths from CHOLERA registered in the different Provinces by months during the year 1897.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO OF DEATHS PER 1,000 OF POPULATION.	
														1897.	1896.
Bengal . .	5,597	7,154	25,328	30,028	20,908	18,654	19,331	24,979	10,469	6,990	14,023	12,786	196,247	2·76	3·19
Assam . .	1,266	1,408	3,108	3,320	4,209	1,784	1,484	1,180	1,640	3,227	5,769	4,755	33,240	6·62	3·39
North-Western Provinces and Oudh . .	22	204	1,314	2,256	2,968	7,317	7,534	7,978	6,721	5,495	1,602	797	44,208	·94	1·47
Punjab . .	...	...	...	...	...	13	175	150	193	91	...	...	622	0·03	0·25
Central Provinces	283	1,279	3,443	6,334	15,642	21,125	5,243	1,960	1,200	390	181	51	57,131	6·01	5·58
Berar . . .	77	59	144	808	1,676	1,029	1,226	4,026	977	100	...	...	10,122	3·56	4·31
Lower Burma .	255	733	1,515	1,462	1,118	714	1,327	795	316	112	97	94	8,538	1·89	·66
Madras Presidency	19,721	8,285	5,953	4,165	6,117	10,613	15,899	20,688	14,130	13,037	8,459	16,378	143,445	4·38	1·46
Bombay „ .	1,225	992	1,745	4,163	9,897	9,635	14,749	9,661	3,009	1,520	392	121	57,109	3·03	1·88
Ajmere-Merwara .	...	...	...	...	6	1	1	9	1	1	...	...	19	·04	·02
Coorg . .	...	...	...	...	41	54	5	6	...	...	...	...	106	0·61	0·28
Mysore . .	627	372	293	418	652	447	260	183	481	341	155	19	4,248	·88	0·43
TOTAL .	29,073	20,486	42,843	52,954	63,324	71,386	67,234	71,615	39,137	31,304	30,678	35,001	555,035	2·55	2·17

In the next statement the millesimal death-rates from cholera in the different provinces are contrasted with each other, and with the quinquennial averages; urban is compared with rural mortality; the highest mortality in any single district and in any one town in each province is shewn; and the months of greatest prevalence in each province as indicated by the number of deaths are named:—

PROVINCE.	Mortality in 1897.	Mean mortality of previous five years.	Urban mortality.	Rural mortality.	Per cent. of villages attacked.	Maximum mortality in any one district excluding towns.	Maximum mortality in any one town.	Month of maximum prevalence.
Bengal . . .	2·76	2·89	3·76	2·71	13·26	9·61	45·56	April.
Assam . . .	6·62	3·70	15·44	6·43	18·42	16·89	62·08	November.
North-Western Provinces and Oudh . .	·94	2·16	1·38	·91	5·7	3·39	9·40	August.
Punjab . . .	0·03	0·80	0·13	0·02	·082	0·50	3·98	September.
Central Provinces .	6·01	2·44	4·87	6·11	17·7	11·59	37·12	June.
Berar . . .	3·5	2·2	6·8	3·1	10·57	5·0	24·8	August.
Lower Burma . .	1·89	1·07	2·88	1·74	10·40	5·14	35·52	March.
Madras . . .	4·4	1·3	5·0	4·3	23·0	12·4	28·5	August.
Bombay . . .	3·03	1·48	2·26	3·14	13·8	9·16	26·63	July.
Ajmere-Merwara .	·04	·98	·11	·01	·54	·21	·19	August.

Cholera in Bengal.

127. The total number of deaths registered as due to cholera in Bengal was 196,247. The death-rate from this disease was 2·76 per mille, much less than the death-rate of 1896, which was 3·19, and ·13 below the average of the previous five years. As usual, every district in the province suffered, and in most of the districts cholera was present throughout the year. In spite of the lower death-rate the percentage of villages attacked was higher than in 1896—13·26 as compared with 12·23. In 26 districts the cholera death-rates were below the average and in 20 above it. Cholera was far more prevalent than usual in all the districts of Chota Nagpur, and much less prevalent than usual in the districts of the Patna Division. The highest district death-rates were 9·57 per mille recorded in Puri, 8·35 in Chittagong, and 8·02 in Lohardaga.

Puri always suffers more or less severely from cholera. Great numbers of pilgrims pass through it along the pilgrim road on their way to attend religious festivals, and these people are, from the conditions of their pilgrimage, peculiarly liable to cholera. In 1897 the district was famine-stricken. Cholera broke out epidemically in May in two *thanas* which were severely affected by the famine, and did not abate until August, after nearly 4,000 deaths had occurred.

In the district of Chittagong the cholera death-rate was nearly four times the average. There were two outbreaks, the first in April, May and June, attributed by the Civil Surgeon to the concentration of the polluted water-supply on account of drought; the second in November and December, but chiefly in the latter month, when, owing to the rise in the price of the ordinary articles of food, the people were subsisting largely on dried fish. This dried fish, although bad smelling, may, it seems, be consumed in moderate quantities with impunity, but when it was taken into use as a substitute for the every-day diet of rice and *dál*, it gave rise to diarrhœa and predisposed the consumers to be attacked by cholera. Particulars regarding the most unusual cholera mortality in Lohardagga are not given. The district is not included in the list of those seriously affected by famine, but the neighbouring districts of Palamau and Manbhum, where the cholera death-rates were also very high, are included.

The lowest cholera death-rates were registered in the district of Darbhanga, ·14 per mille against a quinquennial mean of 3·27, Jalpaiguri ·30, Saran ·35 and in Muzaffarpur ·35, against a mean in that district of 4·38.

Cholera was more fatal in the towns than in the districts, the millesimal death-rates having been 3·76 and 2·71. Only ten towns, including Darjeeling, Dinajpur, Motihari, Lalganj and Roserha, escaped altogether, and in very many of the towns the rates were very high. The towns in Chota Nagpur suffered especially, and enormous death-rates were registered in Daltonganj, 23·10 per mille, Hazaribagh, 25·07, and Lohardaga, 45·56!

In the province as a whole, the greatest mortality occurred in April, March and August, and the least in January, October and February. The incidence of mortality as usual varied in different localities. In Bengal proper, cholera was most severe in April, March and June; in Bihar, in August, June and July; in Orissa, in July, June, November and August; and in Chota Nagpur, in August, July, September and June.

Thirteen cases and 11 deaths from cholera occurred among the European seamen in the Port of Calcutta, as compared with 23 cases and 18 deaths in 1896. Among the native floating population there were 116 deaths, as compared with 156 in 1896.

128. The cholera mortality in Assam in 1897 was enormous; the number of deaths rising from 17,042 in 1896, to 33,240, and the death-rate from 3·39 to 6·62 per mille, as compared with a quinquennial average of 3·70.

Cholera in Assam.

Although the cholera death-rate was nearly double the average in Cachar, it was a little below it in Sylhet, and the population of the latter being about six times as large as that of the former, the average death-rate in the Surma Valley was but little in excess of the quinquennial average,—3·79 per mille as compared with 3·58. In the selected areas of the Khasi and Jaintia Hills cholera was a little less prevalent than usual.

The enormous increase in the cholera death-rate then, was due to the prevalence of the disease in the Brahmaputra Valley. Even there, the death-rates were lower than usual in Nowgong and Lakhimpur, but in all the remaining districts the rates were very high, and in Kamrup (17·48), Goalpara (10·35) and Sibsagar (9·75), they were enormous.

The seasonal distribution of the disease was not that of an ordinary year. In the Surma Valley cholera is generally most fatal in the cold weather months; in 1897, the death-rates were less than the average in the months of November and December, and less than half the average in January, whereas in March, April and May the rates were rather more than twice the average. In the Bramaputra Valley there are two seasons of cholera prevalence, April, May and June, and November and December; in 1897 the monthly rates were all far above the average and the maxima occurred earlier, in March, April and May, and in October, November and December.

In the towns the cholera death-rate averaged 15·44, against 6·43 in the country, but it must be remembered that the towns are small, and that the rates were raised by the deaths of immigrants at the coolie depots. Thus, the highest urban cholera death-rates were 62·08 in Tezpur, and 58·86 in Dhubri, but in the former 233 out of 249 deaths, and in the latter 216 out of 284, occurred among immigrants. A high rate of 13·56 per mille in Silchar is accounted for in the same way. In Barpeta, where the cholera death-rate was 52·59 per mille, 504 out of the 625 deaths occurred in August, and the severity of the outbreak is attributed by Colonel Stephen to pollution of the water-supply produced by disturbances caused by the earthquake.

Although the cholera mortality of the year would have been heavy in any case, there seems to be every reason to believe that the total mortality was greatly enhanced as a result of the suffering and privation to which the people were exposed by the floods which resulted from the earthquake.

The mortality among the immigrant coolies was entirely exceptional, no less than 474 dying on steamers going up the river and 934* in the depôts after landing.

The mortality among the coolies on the tea-gardens, calculated on their population in 1891, was 6·83, against 6·66, the average among the general population of the districts in which the gardens are situated; but, as pointed out by the Chief Commissioner, the population of the tea-gardens has increased by 30 per cent. since the census, and calculated on the actual populations the cholera death-rate on tea-gardens was 4·91 per mille. Taking the actual number of deaths, in the districts, excluding the tea-gardens, the number of deaths rose from 14,885 in 1896, to 30,081 in 1897; on the gardens the number of deaths

* According to the Provincial Sanitary Report; the figures given in the immigration returns are respectively 371 and 750.

rose from 2,112 to 3,108. Roughly, the mortality among the general population was doubled, while the deaths of tea-garden coolies increased in number by one half.

Cholera in the North-Western Provinces and Oudh.

129. In a year of famine, when the general health of the people was reduced and great numbers of the very poorest were gathered together on relief works, it might be expected that the mortality from cholera would have been exceptionally great. But this was not the case. The mortality was less than half the average. Time after time, cholera appeared in epidemic form among the relief-workers, but the measures adopted never failed to check the disease. These measures were, 'the careful preservation of the purity of the water-supply, the prompt removal of the people from the infected area, and the breaking up of large bodies of people into smaller manageable units.'

The total number of deaths was 44,208, equal to a death-rate of ·94 per mille, as compared with 1·47 in 1896, and an average of 2·16 for the five years preceding that under report. In no district was the cholera death-rate very large; the highest rates being recorded in Pilibhit (3·21), Jalaun (3·03), Hamirpur (2·86) and Banda (2·72); in nine districts the rates were less than ·10 per mille, and in no less than seven of these the numbers of deaths were under ten, three of them, Almora, Garhwal and Muzaffarnagar, escaping altogether. The rural cholera death-rate was ·91, against 1·38 in the towns. Twenty-eight of the latter entirely escaped, and in only a few were high cholera death-rates recorded—Sandila (9·40), Ramnagar (9·10), Fatehpur (8·42), Barhaj (7·00), Kalpi (5·58), Azamgarh (5·40), Mubarakpur (5·29) and Gorakhpur (4·45).

There was but little cholera in the provinces in January and February; a rapid rise in March, was followed by a gradual rise till June when there was another sudden rise; rates rose gradually to a maximum in August, and gradually fell until October, when the fall to the end of the year was rapid.

Cholera in the Punjab.

130. Cholera was present in only five districts, and the total number of deaths recorded as due to it in the Punjab was 622, equal to a death-rate of ·03 per mille, as compared with ·25 in 1896, and ·80, the quinquennial mean. Of the total, 538 deaths occurred in Hissar, 61 in Gurgaon, 15 in Rawalpindi, 6 in Gurdaspur and 2 in Lahore. The average district rate was ·02, as compared with ·13 in the towns. The disease appeared in only five towns, Hissar (cholera death-rate 3·98 per mille), Hansi (2·63) and Bhiwani (2·37) in the Hissar district, Rewari (2·18) in Gurgaon, and Lahore (·01). All the deaths occurred between June and October, inclusive, the largest number being registered in September.

Cholera in the Central Provinces.

131. The cholera returns of the Central Provinces in 1897 afford a remarkable contrast with those of the North-Western Provinces and Oudh; in both provinces famine was present, but while in the latter the cholera mortality was that of an ordinary year, in the former it surpassed those of all previous years, except 1869 when the prodigious rate of 10·50 per mille was computed.

The total number of deaths registered was 57,131, equal to a death-rate of 6·01 per mille, as compared with 5·58 in 1896, 2·44, the quinquennial mean, and 5·96 in 1889, another year of extraordinary cholera prevalence. In every district, except Burhanpur, the cholera death-rate was higher than the district mean, and in twelve of the twenty districts the rates were higher than they were in 1896. Cholera deaths were returned from 221 of the 233 circles of registration, every

circle in 12 of the districts being attacked. As in 1896, the greatest mortality was registered in Mandla, and the least in Burhanpur; but while the rate in Mandla fell from 15·75 per mille to 11·62, the rate in Burhanpur rose from ·68 to ·73. The next highest rates were 10·04 and 9·87 recorded in the adjoining districts of Raipur and Bilaspur; while the next lowest, were 1·96 in Jubbulpore, which marches with Mandla, and 2·93 in Wardha.

The average millesimal cholera death-rate in rural areas was 6·11, far higher than the average urban rate of 4·87, but many of the smaller towns suffered in an extraordinary degree. The highest rates were 37·12 per mille, registered in Drug, in Raipur, 35·49 in Sironcha, in Chanda, and 24·22 in Seoni. Ten towns, among them Burhanpur and Jubbulpore cantonment, escaped altogether, and the rate in Jubbulpore city was only ·29. The comparative immunity enjoyed by Raipur town in 1896 when the death-rate in the town was rather less than a third that of the district was not continued; in 1897 there were 111 deaths in the town and the death-rate, 4·67, was just under half that of the district. It seems, however, that the general water-supply of the town, to the good quality of which the relatively low death-rate in 1896 was ascribed, was bad in 1897.

The death-rate increased steadily from January (283 deaths) to April (6,334); in May, there was a rapid rise (15,642), and the maximum (21,125) was reached in June; in July, there was a very rapid fall (5,243) which was maintained until December when the minimum (51) was reached. The greatest mortality in most of the districts was recorded in June, but in Narsinghpur and Burhanpur the largest numbers of deaths occurred in April, in Murwara, Hoshangabad, Balaghat and Nagpur in May, and in Chanda in July. At the beginning and end of the year many districts were free from the disease, and even in the three months when the epidemic was most severe, two districts were unaffected. In Burhanpur there were only two fatal cases in May and none in June or July; and in Chhindwara no death was reported in April. The average death-rate of males (6·47) was considerably higher than that of females (5·56); but in Saugor, Narsinghpur, Chhindwara, Damoh and Betul the female rates were the higher, the reported deaths of females being actually more numerous than those of males in the first three of these districts.

Cholera in Berar.

132. In a year of famine and distress it was to be expected that there would be a great number of deaths from cholera in Berar, a province where the disease is an annual visitant. The number of deaths was large, 10,122, but it was less than in either 1896 or 1895, when 12,264 and 11,919 cholera deaths were recorded, and the aggregate of these three years is almost exactly equal to the appalling total registered in 1878, the last year of famine, when 34,306 deaths were ascribed to cholera.

The death-rate in 1897 was 3·5, against 4·3 in 1896, and 2·2, the quinquennial mean.

The highest district rates were 5·6 and 4·4 per mille, recorded, respectively, in Akola and Amraoti, and the lowest 2·6 and ·7, in Basim and Wun, where the highest rates of the preceding year were registered.

In rural areas the average cholera death-rate was 3·1 per mille, less than half the urban rate of 6·8. In some of the towns the rates were excessive, particularly in Talegaon (24·8), Karanja (20·6) and Kolapur (19·6), in Amraoti, in which district are located also the only four towns that escaped altogether—Ner Pinglai, Nandgaon Pett, Pusla and Buroor. The towns of Pusla and Buroor

have escaped cholera altogether during the last three years, but in 1894 the cholera mortality in them was almost the highest in the province.

The seasonal distribution of the disease was normal; slight during the earlier months, rising through the hot weather to a maximum in August, and then rapidly declining to disappear altogether with the onset of the cold weather in November.

Cholera in Madras.

133. Cholera was exceedingly prevalent and fatal in Madras in 1897, and no less than 143,445 deaths from it were recorded, equal to a death-rate of 4·4 per mille, as compared with 1·5 in 1896, and 1·3, the mean of the quinquennium. The two districts that suffered most were Ganjam in the extreme north-east, and Malabar in south-west. In these districts the death-rates were, respectively, 12·5 and 10·4 per mille. In both districts scarcity was severe, and the district medical officers state that diarrhœa simulating cholera was extremely prevalent owing to the people eating unsuitable food. In Malabar the sex distribution of the mortality was peculiar. In that district, as in most of the coast districts of Madras, there is an excess of females in the population; but in Malabar alone, not only was the actual number of females who died, larger than the number of males who died of cholera, 14,616 as compared with 12,917, but the female cholera death-rate was much the higher, 11·0 against 9·9. The next highest death-rate, after that recorded in Malabar, was 7·5 per mille in Tanjore, and this was followed by 6·0 in Madura and 5·9 in Anantapur. The lowest rates were ·5 and ·3 recorded, respectively, in Nellore and Madras.

In rural areas the average death-rate was 4·3 per mille, against 5·0 per mille in the towns. Only two of the latter escaped altogether, namely, Rayadrug and Rajahpalaiyam, but in nine, including St. Thomas' Mount, Ootacamund and Mangalore, the numbers of fatal cases were 5 or less. The highest urban rates were 28·5, 23·6 and 23·1 per mille registered, respectively, in Cannanore, Parlakimedi and Calicut, and in no less than seventeen other towns rates in excess of 10 per mille were recorded.

The disease was exceedingly prevalent in January (19,721 deaths), it decreased rapidly in February, and then gradually declined to a minimum in April (4,165); the number of deaths then gradually rose until August (20,688), when the maximum was reached; the numbers again declined until November (8,459), and then suddenly rose again in December (16,378).

Cholera in Coorg.

134. Although the cholera death-rate in Coorg was only ·61, the disease was unusually prevalent there as compared with past years; there were 106 deaths, against an aggregate of 150 in the last ten years. Only nine deaths occurred in the towns, all in Virajendrapet where the death-rate from cholera was 2·02 per mille.

Cholera in Bombay.

135. The number of deaths registered as due to cholera in Bombay was 57,109, a number which has not been nearly equalled since the famine year, 1877, when the number of deaths from cholera was 57,228. In its broader features the distribution of cholera in 1897 resembles the distribution in 1877. In both years Sind was free from the disease, and the districts of Gujarat suffered comparatively little; but in 1897, the districts of Kolaba, Khandesh, Ahmednagar, Nasik, Poona, Sholapur and Satara suffered more severely than they did in 1877, while the remaining districts, although the disease was very prevalent in them, suffered less.

The death-rate in 1897 was 3·03 per mille, as compared with 1·88 in the

previous year, and a quinquennial average of 1·48. As has been indicated, the province of Sind was practically free from the disease, only one death occurred in the town of Karachi in September. No fatal case was reported in Ahmedabad, only seven were reported in Panch Mahals, and ten each in Broach and Kaira.

The highest district death-rates were registered in Satara (9·03), Poona (8·62), and Belgaum (7·41), and high rates, over 4 per mille, were recorded in Bijapur, Sholapur, Kolaba, Ahmednagar and Nasik.

The average cholera death-rate in rural areas was 3·14 per mille, as compared with 2·26 in the towns. Twenty-two of the latter escaped entirely, and in twelve others, including Surat (1) and Broach (3), the numbers of deaths recorded were less than ten. By far the highest urban death-rate from cholera was 26·63 per mille, in Nasik, where 650 deaths occurred. In Pandharpur the death-rate was 12·33, in Kalyan 9·68 and in Junnar 9·58.

Nearly as the local incidence of the epidemic of 1897 resembled that of 1877, there is not much in common in the monthly distribution of the disease in the two years. In the earlier epidemic the disease prevailed steadily throughout the year, reaching its maximum of 8,309 deaths in June, and then gradually declining to a minimum in December. In 1897, the vast majority of the deaths occurred between May and August, the maximum of 14,749 being reached in July. As in 1877 the smallest number of deaths was recorded in December.

Cholera in Burma.

136. The number of deaths from cholera registered in Lower Burma was 8,538, and it is necessary to go back to 1888 and 1873, when 15,982 and 8,109 deaths were, respectively, recorded, to find this total exceeded or nearly equalled. The death-rate was 1·89 per thousand, as compared with ·66 in the previous year, and 1·07, the quinquennial average. The disease was most severe in the deltaic districts of Myaungmya (death-rate, 5·10 per mille) and Thongwa (4·41), in Thayetmyo (3·72) and in Tharrawaddy (3·28). The southern districts of Tavoy and Mergui escaped entirely, and Sandoway, although it is bordered by Thayetmyo (3·72), Prome (1·76), Henzada (1·72) and Bassein (1·84), in all of which the disease was more fatal than usual, is reported to have been exempt. The other two districts of the Arakan division, Kyaukpyu (·12) and Akyab (·63) were, however, unusually, free from cholera.

The urban cholera death-rate was 2·88, as compared with 1·74 per mille in rural areas. In six towns no death from cholera was reported, and in other five the number of deaths was less than six; but the rates were upwards of ten per mille in five towns, the highest being 35·52 and 12·57 recorded, respectively, in the small towns of Zigon and Myanaung where the populations are so small that a comparatively small epidemic gives an enormous death-rate.

The disease was present in ten districts out of eighteen in January, and the number of deaths reached the maximum in March; in April and May there was a slight decline, which became considerable in June; in July the number of deaths again rapidly increased, and in August, almost as rapidly decreased, after which there was a steady fall to the end of the year, the minimum being registered in December

Summary of cholera registers.

137. The following paragraphs have been compiled from the official reports of the occurrence of cholera among European and Native troops and among prisoners. It is apparent that, owing to the press of more urgent work, the materials for these

reports are not always collected at the time ; and the reports, in consequence, too often lack precision, even when they have been drawn up by the same medical officer who was in charge at the time of the outbreak.

Details regarding first cases, etc.

138. Cholera occurred among European troops at 23 different stations. There were in all 132 cases and 85 deaths, a case-mortality of 64·39 per cent. In eleven instances the attacks were single, and seven of these single cases ended fatally. Three of the single cases, of which two were fatal, occurred in regiments on their way to the front. All the outbreaks were small, except at Sitapur, where there was a very severe epidemic among the men of the 1st King's Shropshire Regiment.

Among native troops the disease appeared in 34 different stations, and among 43 bodies of men. Excluding the cases of three European officers, all of whom died, there were 201 attacks and 121 deaths, a case-mortality of 60·19 per cent. Of the total, 100 cases and 58 deaths,—case-mortality 58 per cent.—occurred among regimental followers. There were 13 single attacks, and 10 of these ended in death. The vast majority of the outbreaks were slight, and in only four instances were there upwards of 10 cases.

Cholera appeared in 82 jails during the year, and in 16 of them on more than one occasion. There were in all 975 seizures and 482 deaths, equivalent to a case-mortality of 49·43 per cent. Although cholera was so wide-spread among the prison populations, only the Punjab, Berar and Coorg escaping, the majority of the outbreaks were slight. In 24 jails single cases only occurred, but 17, or 70·83 per cent., of these cases were fatal. In the following jails the outbreaks were very severe, Coimbatore, 280 cases and 113 deaths, Rajahmundry, 202 cases and 75 deaths, Thana, 63 cases and 37 deaths, Moulmein, 63 cases and 37 deaths, and Hazaribagh, 26 cases and 19 deaths.

Prevalence of diarrhœa at the time of the occurrence of cholera.

139. Diarhœa seems to have been very seldom specially prevalent at the time that cholera occurred. Among European troops it was unusually prevalent on only two occasions, namely, at Jhansi and Nusseerabad ; and among native troops on no single occasion. At the time of the outbreaks in the jails at Purulia, Hazaribagh, Rajmahal, Jaunpore, Rajahmundry (during each of the three outbreaks) and Bassein, an unusual prevalence of diarrhœa was noted.

Proportion of buildings which furnished cases.

140. The statement below shews, as nearly as possible, the numbers of buildings occupied by the various bodies of men attacked by cholera and the proportion which furnished cases of the disease :—

Communities.	Numbers of buildings occupied by bodies of men attacked.	Numbers of buildings which furnished cases.	Percentages of buildings which furnished cases.
European troops	572	52	9·29
Native troops and followers . . .	12,549	153	1·22
Prisoners	879	179	20·36

State of the weather during outbreaks.

141. Cholera occurred during all conditions of weather, but no special relation between particular meteorological conditions and the occurrence of the disease was established.

Communication with cholera elsewhere.

142. In most instances in 1897, cholera was prevalent throughout the districts in which the bodies of men attacked were located, so that evidence of importation, in the sense in which the term is used here, namely, the bringing of cholera from a place where it existed to a place where it did not exist, and its subsequent spread in the latter, could not be adduced.

In only six instances, when European troops suffered, the presence of cholera was not reported in the surrounding villages. These instances are the following :—At Fyzabad, a man was seized two days after his return from Calcutta where he had been on escort duty; the man died, but the disease did not spread. At Muttra, a man who was in hospital and another living in a tent were attacked on the same day: both men had been eating country bacon, and had no other circumstance in common; both died, but the disease did not spread. Two men of the 1st Dorsetshire Regiment suffering from cholera were removed at Umballa from the troop train carrying the regiment to the front: one man died and the other recovered; and no other case occurred in the regiment, which was detained at Umballa for eleven days, or among the troops in that station.

One man suffering from cholera was taken from the troop train of the 1st Northamptonshire Regiment at Mian Mir: he recovered, and no other case occurred at Mian Mir. A second case occurred in the regiment at Rawalpindi: the man died, but there was no spread of the disease.

At Nusseerabad, there were four cases, of which three were fatal. The cases were not apparently connected with each other in any way, and were separated from each other by intervals of not less than six days. The first man attacked attributed his seizure to eating unripe fruit, but the day before his seizure a native servant who had just arrived from Mhow was attacked at the travellers' bungalow.

Among native troops three single fatal cases occurred at Bangalore, Mhow and Mandalay, respectively, when the disease seems to have been absent from the immediate neighbourhood. Three cases occurred in the 10th Madras Infantry at Maymyo in the persons of men who had just travelled up from Mandalay, and were supposed to have contracted the disease at one of the camps on the road. The disease did not spread. At Sirdarpore, the first man seized had been a patient in hospital for five days. He was about to be discharged when he ate a meal of curdled milk and Indian corn. He was seized with cholera on the next day, the 28th August. On the 27th August a European lady died of cholera in a house south of the regimental lines, her attack being attributed by the medical officer to eating raw vegetables brought from comparatively distant places where cholera was prevalent.

Attendants attacked by the disease.

143. The next statement shews the numbers of persons who were in attendance of one kind or another on cases of cholera with the numbers and percentages attacked :—

Communities.	Number of cases of cholera* treated.	Attendants.		
		Number.	Number of these attacked.	Percentage of attendants attacked.
European troops . . .	128	269	1	0·37
Native troops and followers .	182	449	5	1·11
Prisoners	970	847	30	3·54

*Cases not treated in hospital are excluded when the number of attendants is unknown.

A European orderly, one of nineteen persons in attendance on two cases at Fort Allahabad, was seized four days after the second case of cholera was admitted to hospital. The medical officer attributed the man's attack to neglect of the precautions he had been instructed to take.

Of the five persons attacked while in attendance on native soldiers and followers, two belonged to the regiment at Sirdarpore and a third was the sister of a lascar at Raipur; these attacks were attributed by the medical officers to neglect of precautions. The fourth case, that of a sweeper at Bolarum, was not ascribed to attendance, but to the man's wandering in an intoxicated condition in the *bazaar* where cholera was prevalent. The fifth case was that of a sowar at Hingoli, who was in attendance on his child; but the medical officer did not think the attack was due to the attendance.

Not included among attendants attacked, is the case of the medical officer of the 1st Madras Lancers. The regiment was in cholera camp, at Sangana Kulli, and the epidemic had apparently ceased on the 18th October. On the 30th the medical officer and two grass cutters were attacked and died. The reporting officer writes, "His attack was not due to attendance on any of the cases, none having occurred in camp between the 18th October 1897 and the 30th October 1897."

The large number of attendants who suffered in the epidemics among prisoners is in part due to the unusual prevalence of cholera among the people generally. In two or three cases the attacks might fairly be attributed to attendance, but medical officers sometimes appear to forget that attendance on cases of cholera does not afford immunity from the incidence of the disease, if it is specially prevalent in the locality. For instance, at Coimbatore, 13 attendants were attacked and the medical officer concludes that their attacks were due to "close attendance on the affected." In the epidemic there were 280 cases among a population of 1,054 persons. Omitting the medical staff, all of whom escaped, there were 91 convict orderlies of whom 13 got cholera. That is to say, out of the general body of 963 prisoners, 267 were attacked, or 27·73 per cent., while of 91 orderlies 13, or only 14·29 per cent., were attacked.

Sanitary defects in connection with outbreaks of Cholera.

144. Except at Kirkee, where the method in use for the removal of waste water is condemned, no defect in the general sanitation is noted in connection with any outbreak among European troops.

Beyond scantiness of the water supply in several instances, overcrowding at Shillong, and defective drainage at Sirdarpore, few complaints regarding the sanitary surroundings of the native regiments in which cholera occurred, are made.

In the Jail reports, complaints are more frequent, principally of overcrowding and defective drainage; in some instances the water supply seems to have been bad; while in a few cases the general sanitation of the jail seems to have been at fault.

Effects of Movement.

145. The effect of moving European troops, when this remedy was required, was invariably beneficial not only in respect of the cessation of cholera, but as regards the general health. In the Shropshire regiment seizures took place after movement, but all within a very short time. In one party 14 cases occurred after they had been moved, but five of the cases occurred within 24 hours and the remaining nine within three days. Three cases occurred in a second party moved to a different camp, but all within 24 hours.

The movement of native troops was always successful, and the effect on the general health was good.

In the case of the 1st Madras Lancers the reporting medical officer states that the first move was not successful, "probably due to there being a cholera-stricken village within about half a mile of the camp". After seven cases had occurred in the regiment, it was moved into camp on the 17th October. On the 18th October, one case occurred at the camp. No other case occurred till the 30th, when the medical officer and two followers were attacked. The regiment was again moved on the 2nd of November, and no other case occurred. It would seem that the first move was successful, and that the three cases which occurred on the 30th October were due to a fresh infection.

Prisoners were moved in very many instances, and with the exceptions noted below with the best results, not only in checking cholera, but in improving the general condition. The general health of prisoners moved into camp was affected more or less injuriously by heat and glare at Minbu; exposure to rain gave rise to dysentery at Hazaribagh; and the chilly mornings and hot days set up dysentery among the prisoners camped out at Vellore.

At Coimbatore, Rajahmundry and Moulmein the movement of prisoners failed to arrest the epidemics; and at Ranchi the success of the manœuvre was only partial.

At Coimbatore the number of prisoners in confinement on the 5th April, when the outbreak began, was 1,054. When it was certain that cholera was present in epidemic form, 462 prisoners were moved out between the 9th and 12th April into tents pitched at a distance of about 400 yards from the jail. This seems to have had no effect in checking the outbreak; and on the 14th, 15th and 16th of April the prisoners who had remained in the jail, and those who had been encamped, to the number of 650 in all, were taken to a camp about six miles away from the jail. The epidemic did not cease at once, and the details given in the cholera register unfortunately do not permit either the identification of the dates when prisoners who were attacked at the camp had arrived there, or of the formation of any opinion as to why the movement was not successful. The move was not an absolute failure; indeed, the officer in medical charge considered it a success, for he writes, "cholera disappeared within a week after removal to Siganallore camp." The virulence of the disease certainly abated, but this is common towards the termination of epidemics, and even before the move there were not wanting signs of diminishing severity.

After 176 cases and 83 deaths had occurred in the jail and in the tents in its neighbourhood, the prisoners, as we have seen, were moved to Siganallore in three batches on the 14th, 15th and 16th of April. There were 104 cases and 30 deaths at Siganallore, a case mortality of only 29 per cent. against a case mortality in the jail of about 47 per cent. Nearly half the seizures—51, of which 19 terminated fatally—took place before midnight on the 16th; and 81 cases, which accounted for five-sixths of the deaths, were admitted before midnight of the 17th, that is before the whole body of prisoners had been 36 hours in the camp; and it is, perhaps, fair to assume that in the vast majority of these cases the infection was received in the jail. Nine more cases, of which one was fatal, occurred on the 18th; and 11, of which three were fatal, on the 19th. After this there were only four cases, two on the 22nd, one on the 27th and the final one on the 30th.

At Rajahmundry the purpose of movement does not seem to have been fully understood, and the arrangements made were not such as to secure good effects from the measure.

At Moulmein, the number of convicts was 767; there were 63 cases of cholera and 37 deaths. The outbreak began on the 17th March; on the 20th a party of 302 were taken to cholera camp at Kyauktan, and on the 21st a second party of 100 were taken to the same place.

The epidemic continued at Kyauktan, no less than 29 cases occurring among the prisoners after their arrival there.

On the 24th and 27th of March two other parties, 141 and 92 in number, respectively, were taken from the jail where cases were still occurring, and encamped on a hill in the vicinity. These later moves were comparatively successful, as there were only four attacks on the 25th, 26th, 29th and 30th of March. On the 1st of April, the whole party at Kyauktan was moved again; and this time successfully, for after the occurrence of one case on the 2nd April, the epidemic ceased.

The medical officer is unable to account for the failure of the movement to Kyauktan, just as he is unable to account for the origin of the disease in the jail, where the greatest precautions are taken to preserve the food and water from the possibility of carrying infection.

At Ranchi, although the medical officer reports that movement was successful, five cases occurred after the prisoners had been moved; but the prisoners had only been taken to a shed in the immediate vicinity of the jail.

Other details regarding the occurrence of Cholera.

146. The outbreak in the Shropshire regiment at Sitapur was an exceedingly virulent one, the earlier victims being struck down and dying of collapse within a few hours of their seizure. The outbreak was attributed to the consumption of tea obtained at the Army Temperance Association room. The circumstantial evidence against the tea, in the special report by the medical officer, is very strong, and a vibrio was discovered in some that had been left, although none could be found in the water with which it is said to have been prepared. If the tea was the medium of infection, the incubation period in many of the cases was exceedingly short, for the tea was drunk on the evening of the 10th September * and the first case of cholera was brought to hospital at 6-30 the same evening, and before 8 A. M. next morning, the 11th September, 24 cases had been admitted to hospital.

One of the two cases among Europeans at Cawnpore is of interest as being possibly a second attack. The man was a total abstainer and a "heavy feeder." It is said that he had a severe attack of cholera in 1896, attributed to eating guavas in excess. No special cause for the fatal attack in 1897 could be discovered.

Two cases occurred at Jubbulpore at a time before cholera was reported in the neighbourhood of the cantonment. Two European officers belonging to different regiments, went out together on the 18th of March to a place near Jubbulpore on a pigsticking excursion. Neither of them ate or drank anything while away from the cantonment. On the 20th, both officers played polo together. The same evening they both went to a dinner party at which eight persons in all were present. Both officers were attacked about half past one.

* Moreover it is stated in the report, that "the first case that actually occurred was * * * He was reported sick at 8 A.M. of the 10th of September, suffering from fever and diarrhœa, which he stated he had had for two days. He was admitted into hospital, but choleraic symptoms did not appear until midnight, the 10th September. He was not a member of the Army Temperance Association."

on the morning of the 23rd and died that day. Two other persons who were at the dinner suffered from choleraic symptoms, and this led to the dinner being suspected. Tinned provision had been consumed at the dinner, and vibrios were found in the washings of a tin in which asparagus had been preserved, but how they got there does not appear. No complete examination of the articles used in the kitchen in which the dinner had been cooked was possible, as nearly every thing had been washed before the necessity for search arose. On the 26th March a fatal case of cholera was reported from a village within ten miles of the cantonment.

Small-pox.

Small-pox in India.

147. The deaths from small-pox in 1897 in the parts of India under registration numbered 167,318, or 25,875 more than in the preceding year, the ratio per mille of population being 0·77 against 0·65. The increase in ratio affected six of the twelve provinces in the table; but was much the greatest in the case of the North-Western Provinces and Oudh.

The mortality rose month by month from the beginning of the year up to its maximum in April, then sank month by month to its minimum in October, and, finally, rose again to the end of the year; and in all the provinces the maximum was in the first half of the year, the minimum in the second. Of the total deaths of the year, 81 per cent. occurred in the first half, and 19 per cent. in the second. The months of greatest mortality were April, May, and March, and those of least mortality, October, November, and September. Each of the first five months had more deaths, and each of the last seven, fewer, than the corresponding months of 1896.

The following shows the mortality from small-pox in the different provincial registration areas of India in 1897, month by month :—

Statement showing the deaths from SMALL-POX *registered in the different Provinces by months during the year 1897.*

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.		Ratio of Deaths per 1,000 of population	
													1897	1896	1897	1896
Bengal . .	1,360	1,710	3,477	3,576	3,541	2,056	1,061	920	504	311	512	627	19,655	13,388	0·27	0·19
Assam . .	515	561	603	1,016	855	650	343	247	155	111	133	231	5,420	5,444	1·08	1·08
North-Western Provinces and Oudh.	6,529	7,076	12,605	21,313	19,224	10,723	5,856	2,185	814	375	168	259	87,127	42,771	1·88	0·91
Punjab . .	3,420	2,124	1,789	1,729	1,909	1,643	1,293	675	416	303	383	393	16,077	45,084	0·78	2·19
Central Provinces	409	336	565	708	613	427	190	109	57	137	32	58	3,641	7,747	0·38	0·82
Berar . . .	65	83	103	128	85	56	14	7	3	1	16	56	617	810	0·22	0·28
Lower Burma .	120	155	196	265	272	202	181	150	96	88	81	144	1,950	1,669	0·43	0·37
Madras Presidency	1,612	1,954	2,117	2,262	2,773	1,931	1,479	1,331	968	1,014	1,354	2,883	21,678	9,410	0·67	0·29
Bombay „ .	378	676	952	775	384	186	106	73	37	58	43	167	3,835	6,443	0·20	0·34
Ajmere-Merwara .	11	25	27	28	14	11	10	10	11	4	...	7	158	3,821	0·29	7·05
Coorg . . .	...	7	3	8	3	2	3	9	12	6	6	...	59	18	0·34	0·10
Mysore . .	603	594	695	713	753	600	727	505	413	346	470	682	7,101	4,838	1·47	1·00
Total .	15,022	15,301	23,132	32,521	30,426	18,487	11,263	6,221	3,486	2,754	3,198	5,597	167,318	141,443	0·77	0·65

Small-pox in Bengal.

148. The number of deaths recorded as due to small-pox in Bengal in 1897 was 19,655, or 0·27 per mille, as compared with the 0·19 of the previous year, and with the average of the past ten years, which was 0·16. Most of the districts of the Patna, Orissa, and Burdwan Divisions had ratios above both the quinquennial and the decennial averages. The disease prevailed with epidemic intensity in Shahabad, Puri, and Gaya (ratios over 1 per mille). The Civil Surgeon of Shahabad thought that the severe prevalence might be due to the large number of unprotected people who came in search of work from other districts. The Civil Surgeon of Puri says that the infection came from the adjoining Madras district of Ganjam, and that the adult male population, who had either been inoculated in their childhood or had had the disease in a mild form before, were the chief sufferers.* According to the Civil Surgeon of Gaya, almost all the deaths in the town of Gaya were among the unprotected and the outsiders, and the prevalence of the disease in the rural areas was due to the great opposition on the part of the people to vaccination. The number of district ratios not less than 1 per mille was 3; not less than 0·5 per mille, 3; not less than 0·05 per mille, 20, and less than 0·05 per mille, 20. Only in the Jalpaiguri district was there no death. The urban death rate was 0·26, as compared with a rural rate of 0·27. Mortality ratios of over 2 per mille, distinguished the towns of Bhadreswar and Serampore in the Hooghly district, and eight other towns had ratios of over 1 per mille.

The number of deaths among children under 1 year of age rose from 1,924 in 1895 to 2,805 in 1896 and again to 4,351 in 1897; and among children from 1 to 12 years of age, from 4,707, to 7,026, and again to 9,787; while the percentage of children's deaths in the total small-pox mortality of all classes rose from 50·92 in 1895 to 73·43 in 1896, but fell to 71·93 in 1897.

As in the preceding year one non-fatal case occurred among the European seamen in the port of Calcutta; while among the native floating population there were 8 deaths against 1 in 1896, the respective ratios being 0·31 and 0·03.

Small-pox in Assam.

149. In Assam there were 5,420 deaths registered during 1897, against 5,444, yielding a ratio of 1·08 per mille, the same as in 1896, against the 0·69 of the preceding quinquennium. The highest district death-rate, 5·10 per mille, representing 2,333 deaths, was recorded in Sibsagar; Lakhimpur and Kamrup following with ratios over 2 per mille. One district had a ratio of over 1 per mille, one of over 0·5, and three districts, ratios of not less than 0·05. Since a slight outbreak in 1881-82 very few small-pox deaths had occurred in the Nowgong district. The Civil Medical Officer reports that a brass-worker of the *Moria* caste was attacked with small-pox at Nachonipara in the Sibsagar district, and was brought in a boat, while suffering from the disease, to Moriagaon near Kuaritol, in the eastern portion of the Nowgong district, in the beginning of April 1897. The disease afterwards spread in that village, in which about 130 persons were attacked and 13 died. From this village small-pox spread to neighbouring villages, and before the end of the year the greater portion of the Nowgong district was affected. As soon as the outbreak was reported, all arrangements were made to vaccinate unprotected persons in the affected villages, but in almost every case parents refused to allow their children to be vaccinated. The Sanitary Commissioner himself did all that he could personally. But "the

* See Thomson and Brownlee in *Lancet* of 10th December 1898, page 1531.

people are," he says, "so bigoted that comparatively little vaccination was done during the season; and, as a large portion of the population is unprotected, the probability is that small-pox mortality in Nowgong will be large in 1898." In ten towns there were no deaths from small-pox, and in the others the mortality ranged from 5·62 per mille at North Lakhimpur to 0·14 at Sylhet, the provincial urban ratio being 0·50. On the other hand, the provincial rural ratio was 1·09, the district extremes being zero and 5·16. Among infants under one year of age there were 1,062 deaths, nearly 20 per cent. of the total; and among children between one and twelve, 2,846 deaths, nearly 53 per cent. of the total.

Small-pox in the North-Western Provinces and Oudh.

150. The lowest recorded death-rate from small-pox in the twenty-six years, 1871—96, was 0·04 from 1,968 deaths in 1895. But in 1897 there were 87,127 deaths from small-pox, giving a ratio of 1·86 per mille. The increase over 1896 was 44,356 in actual deaths, and 0·95 in the ratio. "This," says the Sanitary Commissioner, "is a considerable increase, and the explanation is possibly to be found in the peculiar climatic conditions prevailing. Small-pox appears to be in this country especially a disease of dry weather, its virulence increasing with heat . . . It appears to have had little or no connection with famine: certainly it did not particularly affect the distressed districts." The districts with mortality ratios not lower that 5 per mille were Sultanpur, Jaunpur, and Bijnor; and there were five districts with ratios not under 4 per mille, one with a ratio not under 3 per mille, five with ratios not below 2 per mille, thirteen with ratios not less than 1 per mille, three with ratios not under 0·5 per mille, fourteen with ratios not under 0·05 per mille, and four with ratios under 0·05 per mille. There was no district without a small-pox death; and only 17 of the 97 principal towns escaped. The urban mortality was 0·62 as compared with 1·95 in the rural areas. Omitting the towns without mortality the extreme urban ratios were, on the one hand, 8·31 at Nagina, 7·59 at Bilgram, 5·94 at Kiratpur, and on the other, 0·01 at Agra.

Among infants under one year 27,526 deaths occurred, against 14,410 in the previous year; and among children under 12 years of age but not under one year, 48,036, against 26,443. Again, the percentage of deaths of the former class of children to the total small-pox mortality of all classes of the population was nearly 32, against nearly 34 in 1896, and that of the latter class of children to the same, over 55, against nearly 62.

Small-pox in the Punjab.

151. After the severe epidemic of 1896 small-pox greatly abated in the Punjab in 1897; the total number of deaths registered being 16,077 against 45,084, and the ratio per mille 0·78 against 2·19. As usual, says the Sanitary Commissioner, the lowest death-rate from small-pox was registered in Kangra, the best vaccinated district in the province. The Bannu district had a ratio over 3 per mille; the Hazara district, a ratio over 2 per mille; ten districts had ratios not below 1 per mille; eight, ratios not below 0·5 per mille; nine, ratios not below 0·05 per mille, and two a ratio below 0·05 per mille. The rural mortality was 0·81 and the urban 0·57. The extremes of the town mortalities are far apart owing to the excessive mortalities in certain towns due to a neglect of vaccination which calls for reform. Rajanpur had a ratio over 9 per mille; Nowashar one over 8, and five towns ratios over 5; while the lowest mortality, excluding 47 towns wherein there were no small-pox deaths, was at Rawalpindi, one of the larger of the 151 towns.

Of the 16,077 persons who died from small-pox, 5,001, or over 31 per cent., were children under one year of age; and 8,549, or over 53 per cent., children between the ages of one and twelve.

Small-pox in the Central Provinces.

152. The number of deaths from small-pox in the Central Provinces fell from 7,747 in 1896 to 3,641 in 1897, and the ratio per mille of population from 0·82 to 0·38. The quinquennial mean was 0·93. The province was not altogether free from small-pox in any month of the year; but the disease prevailed, as usual, with greatest intensity in the hot months, and declined in the monsoon season. Only three districts, namely, those of the Mahanadi Division, had ratios over 0·5 per mille; and the ratios of the other 17 districts lay between 0·05 and 0·5. In the division just referred to the district ratios were all above the quinquennial mean. The rural mortality was 0·38, and the urban 0·43. The distance between the urban extremes was very great, the highest ratios being 18·08 at Drug, 9·04 at Mungeli, 6·73 at Ratanpur, and 4·14 at Bilaspur, the three last in the district of Bilaspur, and the lowest ratio 0·02 at Kamptee, while 38 towns had no small-pox mortality.

In the 3,641 persons that died from small-pox were included 888 children under one year of age, or over 24 per cent., and 1,428 children between the ages of one and twelve, or over 39 per cent.

Small-pox in Berar.

153. The total number of deaths registered from small-pox was 617 against 810 in the previous year; while the death-rate was 0·22 against 0·28 in 1896, and against 0·20, the quinquennial mean. Out of the six districts of the province one had a ratio of 0·50, one a ratio of less than 0·05, while the ratios of the other four lay between 0·05 and 0·50. The rural mortality was 0·20, and the urban 0·50. While in 25 towns, mostly in the Ellichpur and Amraoti districts, there was no small-pox mortality, Balapur had the maximum, 6·20, and Akola the minimum 0·20. In Balapur, says the Sanitary Commissioner, the Superintendent of Vaccination personally did his utmost to assist the vaccinator in checking the spread of small-pox in the town, and in affording protection to the population, but difficulty was experienced with the Muhammadan inhabitants. The high ratios of seven towns the Sanitary Commissioner considers to be highly discreditable to the responsible town officials, who seem to have failed in their duty of collecting children for the vaccinators.

Out of the 617 persons who died from small-pox 191, or nearly 31 per cent., were under one year of age, and 241, or over 39 per cent., between one and twelve.

Small-pox in Madras.

154. The number of deaths from small-pox in Madras in 1897 was 21,678 against 9,410 in the previous year; and the death-rate was 0·67 per thousand of the population against 0·29 in 1896, and against 0·6, the quinquennial mean. The highest district ratio was that of Ganjam (11·7); five districts had ratios not under 0·5, fourteen, ratios not under 0·05; and two ratios under 0·05. With regard to Ganjam the Sanitary Commissioner quotes as follows from the District Medical and Sanitary Officer:—

> It must also be noticed that the customs of the Uriyas tend greatly to spread an outbreak of small-pox. The infected rags and mats, etc., are collected and thrown into the uədo, and the soiled clothing, etc., washed in tanks used for drinking purposes, thus disseminating the disease. Several instances have been brought to notice where the bodies of people dying of small-pox have not been buried, but deposited on tank-bunds

or dry beds of tanks and other convenient spots. This matter was brought to the Collector's notice, and orders were issued to prevent this procedure. I fear it will not be possible to entirely stop this custom, nor will small-pox be kept in check until vaccination is made compulsory throughout the district.

The rural death-rate was 0·7, the urban 0·2; while the urban extremes were 5·8 at Palkonda and 0·02 at Coconada. Kampti (4·2) was the only other town with a very high ratio.

Children under one year of age furnished 4,573 deaths, or over 21 per cent. of all the persons who died from small-pox; and children between the ages of one and twelve, 10,120, or nearly 47 per cent.

Small-pox in Coorg.

155. In Coorg the total number of deaths from small-pox registered was 59, against 18 in the preceding year; and the ratio of deaths per 1,000 of population was 0·34 against 0·10 in 1896, and against 1·37, the mean of the quinquennium. Deaths were registered in 26 villages out of the 517 in the province. Of the *taluks* Mercara had the highest ratio (0·82), the lowest being 0·03. The rural death-rate was 0·35, the urban 0·26, Virajendrapet being the only town with any small-pox mortality. No children under one year of age died of small-pox, but twelve, that is over 20 per cent. of all the persons that died of it, succumbed between the ages of one and twelve.

Small-pox in Bombay.

156. In the Bombay administration there were in 1897 deaths to the number of 3,835, against 6,443 in the preceding year, and the ratio was 0·20 against the 0·34, of 1896, and the 0·19 of the quinquennium. The disease reached its maximum intensity in March, a month earlier than usual, then declined, but rose again in the end of the year. Of the registration district ratios those of the Western and Sind districts were the highest. Two collectorate districts had ratios over 1 per mille, one a ratio over 0·5, twelve ratios not under 0·05, and nine ratios less than 0·05. The ratio for rural areas was 0·20. The mean urban mortality being 0·26, the extremes were 10·28 at Umarkot and 0·01 at Ahmedabad.

The total 3,835 deaths from small-pox include 1,130 of children under one year of age, or over 29 per cent., and 1,779 of children between the ages of one and twelve, or over 46 per cent.

Small-pox in Lower Burma.

157. There were 1,950 deaths from small-pox during the year, and the death-rate was 0·43, as compared with 0·37 in 1896, and with 0·42, the mean of the previous five years. The disease persisted throughout the year, but was most fatal in April, May and June, and least so in October and November. There seems to be a general consensus of opinion among district medical and health officers that in the majority of cases inoculation is responsible for outbreaks of small-pox in Lower Burma. In one instance a public vaccinator had to be dismissed for patronising inoculation by private inoculators. The influx of unprotected coolies also spreads the disease. Only one of the three districts of the Arakan Division had a death, and the Tavoy district had no small-pox mortality. Two districts, Pegu and Toungoo, had ratios not less than 1 per mille; four, ratios not less than 0·5; seven, ratios not less than 0·05, one a ratio less than 0·05, and four no mortality. The rural death-rate was 0·45, and the urban 0·31, the extreme town mortalities being 0·91 at Henzada and 0·03 at Prome.

Out of the 1,950 persons who died from small-pox 375, or over 19 per cent.,

were under one year of age ; 890, or nearly 46 per cent., between the ages of one and twelve.

Plague.

158. Plague is an acute infectious fever, in the causation of which the microbic factor is the *bacillus pestis* of Kitasato and Yersin ; the other factors being a susceptible animal and a suitable environment. It is the only known disease of the class which attacks epidemically and simultaneously man and certain of the lower animals.

Forms of plague. (²³)

159. Although cases with severe intestinal symptoms have occurred, the experience of the present epidemic in India has so far not furnished any anatomical evidence that the bacillus has actually entered the body of a patient by the alimentary canal below the naso-pharynx ; while the demonstration of its entry by the skin and by the lungs is almost complete. If the bacillus in the penetration of the skin has entered directly into a blood-vessel, or if it is of so virulent a type, or attacks so susceptible a man, that it is able quickly to paralyse and overcome the leucocytes of the lymphatic glands, and pass on into the general circulation, the result is the rapid and fatal Primary Plague Septicæmia. If, on the contrary, the bacillus, from its position in the tissues, and from its deficient virulence or the refractoriness of the patient towards it, falls to be dealt with by the lymphatic system, the disease assumes the bubonic form, the form which gives the patient the best chance, such as it is, of recovery. For recovery to take place, however, it is necessary that the disease should remain confined to the lymphatic system ; for, if the bacillus should succeed in passing the lymphatic filter-barriers and entering the blood-stream, the patient will almost certainly die of Secondary Plague Septicæmia. The situation of the bubo depends probably on the place of entrance of the virus, but is most frequently the groin, and next most frequently the axilla. It would have been natural to suppose that plague pneumonia is always a secondary manifestation of plague septicæmia ; but the evidence of those who have studied cases clinically and anatomically in the present epidemic is clearly in favour of the occurrence of primary plague pneumonia. The main forms of plague, then, are :—

1. *a*. Primary Lymph Plague.
   b. Secondary Blood Plague.
2. *a*. Primary Blood Plague.
   b. Secondary Lung Plague,
3. *a*. Primary Lung Plague.
   b. Secondary Blood Plague.

Such are the divisions to which the reports of most observers more or less clearly point, and there is a very general consensus of opinion that the presence of the bacillus in the blood is an almost certain sign of a near approaching fatal issue. The first part of the report of the Austrian Plague Commission, however, speaks of bacilli being found in the blood of patients recovering from the disease, recognises only two forms, gland plague and lung plague, and asserts that the sick man does not die because he has bacilli in his blood, nor recover because he has not, but recovers or dies according to the amount of strength he has to fight against the disease. Further explanation will probably be given in the bacteriological part of the report, which has not yet been published. Simond's idea is that plague is always contracted by skin-puncture, and that the difference between bubonic and septicæmic cases is simply due to different degrees of virulence of the microbe, a very virulent microbe attaining at once the lungs or

the blood, a moderately virulent one being delayed by the group of lymphatic glands nearest the point of entry. Clinically other divisions have been made, either as showing the position of the primary lesion, as in the Tonsillar Type, or as indicating the prevalent symptoms, as in the Gastro-intestinal Type.

160. In primary septicæmic cases there is during life widespread tenderness of the lymphatic glands of the body; and after death there is found a general involvement of nearly all the lymphatic glands, one member or group of which may show greater enlargement than the others, with a colour dark red or pink according to stage. There are hæmorrhages in the internal organs, the skin, the sub-cutaneous tissue, the muscles, and the mucous membranes; parenchymatous degeneration of glandular organs; swelling of the spleen, lymphatic glands, and bone marrow; serous or sero-purulent inflammation of the convexity or base of the brain; often miliary plague nodules in the lungs, liver, spleen, and kidneys, or larger solitary nodules. These nodules consist of masses of bacilli, and the bacilli are also found in the lymphatic glands and their surrounding tissue, in the blood, spleen, marrow of the bones, bile, urine, peritoneal fluid, juice of the base of the lungs, and fluid from the brain. In a case with hæmorrhages into the mucous membrane of the intestine the epithelium was found to be intact, and the bacilli were present only in the vessels and the extravasated blood, not in the mucous membrane or its follicles. In one case the *diplococcus lanceolatus* was found in a patch in the lung without the plague bacillus. In searching for the plague bacillus the examination must be made as soon as possible after death, as the bacillus disappears somewhat rapidly in the decomposing body.

Pathological Anatomy and Bacillary Distribution (1).

The bubo is usually in the groin of either side, less commonly in the axilla, rarely in the neck, and most rarely in the supratrochlear or popliteal region. The limb corresponding to the bubo is swollen and œdematous, and petechiæ are usually seen upon it, but they are always in greatest number over the site of the bubo itself, and there may be a few over the body generally. The bubo consists of a chain of swollen glands matted together with serous and hæmorrhagic infiltration, and showing changes varying from medullary swelling to blood infarction, and from softening to suppuration and necrosis. The superficial bubo is often found to be continued into an internal bubo, or into a series of internal buboes, the most internal appearing to be the most recent. Death in the bubonic form of plague is so commonly due to secondary septicæmia that it is difficult to say what would be the appearance in a case of death from the pure bubonic form. Swellings, engorgements, hæmorrhages, cloudy swellings are described. In some cases Peyer's patches and the solitary follicles looked distinct, prominent, and slightly swollen; but these were probably septicæmic cases. In the lungs there was engorgement with œdema, and, rather frequently small hæmorrhages into the lung tissue. The specific bacilli are found in enormous numbers in the glands of the bubo and in the surrounding hæmorrhage, in the latter probably only after the bacillus has gained access to the blood.

The Bombay Plague Research Committee says that there was no autopsy which went to show that the plague bacillus had reached the stomach or intestines, *e.g.*, in food, and had thence infected the mesenteric glands; and the German, Russian, and Austrian Plague Commissions give similar evidence.

In the primary pneumonic form the only marked evidences of disease are found in the lungs, whereas the lymphatic glands and other organs are scarcely

at all affected. No petechiæ were observed in the skin, and large internal hæmorrhages were absent; but petechiæ on the surface of the heart, in the pelvis of the kidney, in the bladder, stomach, and intestines, were commonly present, probably as the result of the toxin circulating in the blood. Throughout the lungs, but especially in the lower lobes, are patches of lobular pneumonia, and sometimes a mixture of hepatisation and catarrh produced a lobar form. Occasionally necrosis and hæmorrhagic infarction were observed, and, of course tubercle was sometimes simultaneously present. Sometimes there are bronchial buboes, sometimes not. Plague bacilli are found in abundance in the pneumonic patches, and sometimes in alveoli which show little or no signs of inflammatory reaction. In one case the *diplococcus lanceolatus* was found by the German Commission along with the plague bacillus; and Sticker states that it may be associated with that, or the streptococcus, or the influenza bacillus.

Histology. (²)

161. Childe of Bombay, the describer of primary plague pneumonia, treats of the histology of this and the other forms in the report of the Bombay Plague Research Committee. Some German papers on the subject concern themselves with the lesions produced in animals by artificial introduction of the virus.

The Plague Bacillus. (³)

162. The bacillus is usually stated to have been discovered by Kitasato and, almost simultaneously, by Yersin at Hongkong in 1894; but it seems that the descriptions given of the bacillus by Kitasato and by Yersin were somewhat different, and that that of Yersin corresponds the more closely with what has been found by subsequent observers. Kitasato described the microbe as motile and stainable by Gram's method, Yersin as non-motile and not stainable by Gram's method. Most subsequent observers have agreed with Yersin that it is non-motile, but on the other hand, its motility and the presence of fiagella have been affirmed. The bacillus varies much in different circumstances as to the relation of its length to its breadth; but the typical form is that of a short spindle, such as may be obtained from a plague patient or from a cultivation on agar at 37°C. Because its breadth is great in proportion to its length and its ends rounded, it approaches more or less to the form of a coccus, and has therefore been described as a cocco-bacillus; and on agar at 37° C. such cocco-bacilli form chains like those of the streptococcus. In fluid media the chains are still longer, and the individual bacilli also tend to be longer. A peculiarity of these chains is that after every few links there is a kink from two adjacent links being set askew to one another, and long chains show sudden sharp angles or knicks. The bacillus is easily stained by all the ordinary basic aniline dyes, but not by Gram's method. The stain appears chiefly in the poles, leaving the centre of the bacillus unstained, or nearly so. Observers have given differing opinions as to its possession of a capsule when in the tissues or fluids of its host. No spores have been discovered.* The plague bacillus is agglutinated by the serum of a plague patient after the method of Widal.

Cultivation of Bacillus. (⁴)

163. The bacillus can be cultivated on all the ordinary laboratory media, but prefers the addition of glycerine. A very favourable medium is said to be an alkaline 2 per cent. peptone solution to which 1-2 per cent. of gelatine has been added. The growth of the microbe in broth is said to be characteristic, in that it resembles much

* But see Schultz in C. B. XXIII, page 597.

that of the streptococcus, flocculi being deposited. Alkaline broth containing fat, according to Thomson, produces flake-like islands underneath the surface, which fall to the bottom like vermicelli choppings, on shaking the containing flask. This growth appears in 24 to 48 hours, and continues to grow and develope fresh festooned flakes for upwards of a month. On agar at 37°C pin-head-sized colonies appear in from 24 to 48 hours. The colonies on agar are whitish and transparent, and by reflected light their borders are iridescent. Abel states that the bacillus can grow in acid media, and that it can be cultivated anaërobically; but the former statement is opposed to the large experience of Hankin, and the latter does not appear to be corroborated by other observers. Conflicting statements have been made as to the capacity of the bacillus for surviving and growing in milk, but probably these differences are due to differences of reaction, as Hankin has shown that whenever milk begins to assume an acid reaction, it begins to obtain the power of destroying the *bacillus pestis*. Klein has pointed out a curious diagnostic dimorphism of the colonies grown on the surface of gelatine. Yersin also originally described dimorphism in agar colonies, and maintained that the two different kinds of colony in the same culture possessed different degrees of virulence, and that the milder varieties tended to overgrow and choke the more virulent. Abel corroborates the fact of the dimorphism, but did not succeed in finding the different degrees of virulence. Kasanski also observed dimorphism. Under unfavourable circumstances, such as old dried media, the bacillus forms bloated involution-forms which are useful for diagnostic purposes. Hankin and Leumann discovered that a rapid way of obtaining such forms was to transfer an agar culture to salt-agar. Such forms also occur in the human body, but Hankin found that this was altogether a *post-mortem* phenomenon.

Degree of hardiness of the bacillus. (5)

164. The optimum temperature for the bacillus is 37°C, but its growth is also good at temperatures so low as between 22° and 24°C. Below this its growth is retarded; but it has withstood exposure to cold of —20°C, and has survived repeated freezings and thawings. Temperatures above the optimum retard the growth of the bacillus more than those below it; and moist heat at 80°C kills the microbe in 10 minutes, at 100°C, in one minute. The usual statement that the *bacillus pestis* cannot survive drying requires some qualification. The fatality of drying to the bacillus is directly proportional to the rapidity with which it is conducted and to the temperature at which it is conducted. Thus, rapid drying at 37°C (the very temperature at which the bacillus flourishes best) is more quickly fatal than slow drying at a lower temperature, and rapid drying at 37°C is more rapidly fatal than slow drying at the same temperature. Diffused sunlight appears to have no effect, and the number of hours required by the direct rays of the sun to destroy the bacillus depends on the thickness of the layer in which the bacillus lies and the facility with which the rays can get at it. Even when placed in the most favourable circumstances, *i.e.*, when kept moist and sheltered from light and heat, the life of the bacillus placed in *thin* layers on various articles of clothing or common use is generally measured only by days. Experiments have, however, been published, by Gladin among others, which seem to show that on certain materials and under favourable conditions as regards nutriment, moisture, temperature, and shelter, the bacillus may survive for weeks or even months. Some of the most recent experiments, such as those of the German Plague Commission and of Mr. Hankin, are those which

give the shortest survival-periods. It is true that Gabritschewsky says that when kept moist and sheltered, in water, agar, pus, or blood, the bacillus can live for months and years; but in the absence of full details of his paper it is not known whether this is merely an inference or is the result of actual observation. Recent experience in Bombay is that the bacillus is delicate and short-lived under all experimental conditions. There is some contradiction between this and the persistence with which the infection has been known to cling to some places; but the explanation may be that for persistence the bacillus requires the help and services of a living host, the possible hosts occupying various heights in the scale of the animal kingdom. Details of the various experiments will be found in the works to which reference is given. It may be said, however, that so long as the microbe remains in life, it retains its virulence, though its action may be delayed; and that its survival depends on supply of nutriment in suitable surroundings.

To ascertain what danger there is from the buried bodies of those dead of plague, Yokote made some experiments by burying the bodies of plague-mice in little coffins(6). He found that the bacilli died out in from 22 to 30 days, the rapidity of their disappearance being proportional to the amount of heat and putrefaction present, and that the bacilli did not come out into the earth round about the coffin.

Gladin(7) examined a large number of microbes in conditions of rivalry with the *bacillus pestis*, and found that, except in the case of one (*sarcina aurantiaca*), the latter invariably got the worst of it. Among them was the staphylococcus.

Large numbers of experiments on the action of disinfectants on the bacillus have been made by various observers,(8) and particulars of these may be found in the works to which reference is given. Suffice it here to say that the experience of the laboratory was not always found directly applicable to the bacillus in its natural habitats, and that different antiseptics were found best for different circumstances. Those which have been found of most universal application are fire, boiling water, and an acidulated solution of corrosive sublimate. The last is made by adding two parts of a 1 : 250 dilution of sulphuric acid to 1,000 parts of a 1 : 1,000 solution of corrosive sublimate.

The virulence of the bacillus has been observed to vary, and this is one of the factors supposed to determine whether a man shall suffer from the bubonic or the septicæmic form of plague. Yersin and Metschnikoff state that passage through a guinea-pig increases the virulence of the bacillus, and Devell found the same for frogs. Hankin, however, states that, though the same rule applies to mice, passage through rats is, contrary to expectation, attended by diminution of virulence. (8)

The plague bacillus in nature. (9)

165. It cannot be said that the bacillus has ever been found in nature uncontaminated by man, or that it is often found in the earth, air, or water of plague surroundings. It has as yet never been found in air, but perhaps no experiments have been made with the air surrounding a patient sick of primary plague pneumonia. The plague-like bacilli found in earth by Yersin were not pathogenic, so that their identity is doubtful. Haydon and Gibson have tried in vain for months to find the bacillus in soil and in the floor scrapings of infected houses, and Hankin appears to have met with as little success. Leumann was successful in 3 out of 25 cases, but thinks the floors had been recently contaminated, probably by

sputum. Ogata did not succeed in inoculating animals by means of earth from infected localities; but Kitasato obtained a positive result in one mouse with house-dust, the other mice inoculated dying from tetanus. Haydon and Gibson also failed in earth-inoculations, the animals dying of malignant œdema. Wilm reported that he had found the bacillus in one out of three wells near Kowloon (China, opposite Hongkong) at a time when plague was prevalent; and the following is the only instance in which it was detected by Hankin.

"Sewree Koliwada is a village in the north-east of the island of Bombay, containing a population of some 600 Kolis, inhabiting about 150 houses.

"The first case of plague reported in the village occurred on the 12th of December, but it was not until January that the disease became epidemic. The disease here, as in Worli, was marked with great virulence: nearly every case being fatal.

"Disinfecting operations were carried on all through December and January in individual affected houses, but had little or no effect on the spread of the disease. On the 27th of January these operations were extended, and some 200 coolies were placed on the work; they disinfected and limewashed all and every house; rags and *kutchra* were burned; all roofs were opened for ventilation; and the place generally had a thorough cleansing. This work lasted five days, and the spread of the disease was checked. But at the back of the village there was in December and January a long and narrow pool of water. This pool was daily largely used by the male population of the village for ablutionary purposes in connection with defæcation. Mr. Hankin in his researches at this village about the 24th January discovered the plague bacilli in large numbers in this water. Upon this being known, the pool was thoroughly disinfected with carbolic acid on or about the 27th January, and the whole field, which was littered with human excrement, was cleaned up. It is possible that in this incident lies the crux of the situation. Disinfecting operations apparently up to January 27th had very little effect on the spread of the disease, and it may be conjectured that its spread was fostered and maintained by the daily use of the water in the pool, especially when we know that most of those affected were males. The incident, however, is of interest, as from the 27th January little or no disease occurred in this village, which, although considerably reduced in numbers, was not altogether depopulated, there being never less than 350 people in the place." The disease did not form itself into groups, as is usually the case, but was almost evenly distributed over the village, there being rarely more than one case in a house. This points to an unusual element in the spread of the disease, and this element General Gatacre believes to have been the use of the water of the polluted tanks.

If the means of investigation at present available are adequate, these results, so far as they go, indicate that soil, air, and water do not become generally infected during an epidemic, but are only subject to temporary local contaminations.

Dissemination of bacilli from the sick. (10)

166. In order to understand how far a plague patient is likely to contaminate his surroundings, it is necessary to remember what has been said under the head of "Forms of Plague." A man suffering from pure bubonic plague has no means of disseminating the bacillus, except, it may be, from a skin wound; but, unfortunately, the majority of cases progress towards a fatal termination by becoming septicæmic, the bacillus breaking through the lymphatic barriers into the blood stream. In that case the hæmorrhages, which have been shown to be so common in plague, will contain bacilli, and in this way the latter may come to be excreted by the alimentary canal, by the urinary organs, or by the air passages. It has even been reported that the bacillus has been found in the milk of lying-in women suffering from septicæmic plague. It is much more often found in the urine than the fæces. It has been said by Germano that, as the *bacillus pestis* cannot survive drying more than a day, it is not likely to be conveyed by the air in a virulent condition; but the researches of Flügge on *bacillus prodigiosus*

have shown that a microbe can be readily disseminated in a room in the fine spray which results from coughing. In this way plague pneumonia cases may well be supposed to spread infection, and with this supposition the opinions of clinical observers agree. It is precisely in this form of plague that the chief danger to nurses and medical attendants appears to arise.* The fact noticed above that in pure bubonic plague there is no shedding of the virus by the sick probably explains those cases where a woman sick of plague has borne or suckled an infant without communicating the disease to it, and where a suckling with plague has not communicated it to the mother. Thomson quotes Dieudonné of the German Commission as stating that in Bombay in only one case of plague that recovered was the bacillus demonstrated in the blood, and that was in a child 4 years old, with right parotid bubo, in whose blood bacilli were found four times in five examinations. The statements of Kitasato and of Wilm as to the finding of bacilli in the bodies, blood, and excretions of patients days or even weeks after the cessation of active symptoms must be received with reserve. When a bubo has spontaneously softened and burst, its contents are often, if not always, found to be sterile, not to contain any plague bacilli; and in cases where the staphylococcus has gained access to the bubo, it soon overgrows and destroys the plague bacillus. It has always been held that plague can be spread by means of clothes; and from what has already been said it may be gathered that patients' clothes have opportunities of becoming infected, and that under favouring circumstances the bacillus may thereon maintain vitality and virulence for considerable periods. Wilm claims to have cultivated the bacillus from soiled clothing and bedding. Two cases are quoted by Hankin in which it appears that the virus was preserved in clothing for respectively about 36 and about 10 days. The second of these cases will be quoted again below as showing that the infection carried by clothing is not always directly conveyed to man, but sometimes indirectly. Two good cases of conveyance of infection by clothing are given in the Report on Plague in the Punjab, pages 88 and 91.

Mild Cases (11)

167. It has already been mentioned that the virulence of the plague bacillus is subject to variation; and man is less susceptible than the rat. There are also grounds for supposing that among susceptible kinds of animals there exist individual differences of susceptibility. According as a more or less virulent bacillus attacks a more or less susceptible man, there results plague of all grades of severity, from the acute and rapid primary septicæmic cases to such mild cases as have been described by General Gatacre and by the German Plague Commission. These mild cases were seen as men or boys with one day's fever and slight tenderness of one gland; or even without fever, but with stuffiness and headache, or pains in the limbs, or slight digestive disturbances, and recovering in a few days; and the diagnosis was confirmed by the fact of the patients belonging to families suffering from plague, by the undue weakness remaining, and especially by the irritability of the heart left behind. Lyons, on the contrary, reports that no such cases were seen by the Plague Research Committee. Some cases supposed to be plague were found by the German Plague Commission on bacteriological examination to be caused by other microbes, such as the influenza bacillus.

* One attendant who had been in the habit of finishing off the remains of patients' stimulants was ultimately attacked with rapidly fatal plague.

Other Factors in Causation. (13)

168. It has been stated that not only are drought and famine * frequent precursors of plague, but that all great epidemics of plague have been preceded by epidemics of influenza. Whether that general assertion be true or not, it is a fact that, besides the drought and famine of 1896-97, influenza has been prevalent in India since 1890. With regard to climate and temperature all that can be said with certainty is that in the hottest and driest part of the year there has been a lull in the plague epidemic; but how far this is due to the fact that men are more out of doors, and sleep more out of doors in that season of the year than in the cold weather and rains, and how far the recrudescence in the colder seasons is due to the bringing out again of infected clothes, is not known. That plague can exist in the Himalayas of Garhwal and also at the sea-level in the Bombay Presidency is evidence that elevation above the sea-level is of itself of no account in the etiology of epidemic plague. But it seems to have something to say to plague endemicity; this being probably due to the fact that on account of the cold causing disinclination from ablution the inhabitants of elevated regions are more dirty in their persons, and, in order to economise warmth, more crowded, shut up, and insanitary in their dwellings. Density of population, poverty, dirt, overcrowding, deficient ventilation, may invite plague into a town; but once the plague has started, it does not confine itself to the worst parts of the town. It has been said that "plague does not go upstairs," and the health officer of Bombay shows that fewer deaths from plague occurred in upper stories than in lower; but statistical objection has been brought by Hankin against this method of stating the case. Certain statements have already been made with regard to the relation between plague and geological formation; but the subject will be better discussed when more is known about it, when the epidemic has revealed its final boundaries. Men have been attacked more than women, and young adults more than other men. In Bombay there has appeared to be some ground for believing that meat-eaters were less liable than vegetarians, perhaps because, as the Austrian Commission thinks, the latter are usually inferior in stamina. The comparative exemption of Europeans and rich natives has probably been due in great part to their better built houses and to their more fastidious personal habits. It was sometimes noticed that banias were the first to be attacked, or people living above or close to grain-stores; and this has been connected with the facts that grain attracts rats, and that rats are very susceptible to plague infection. The sight of plague-intoxicated rats in the street in open daylight was often the harbinger of an outbreak among men. The condition of a house in regard to the accessibility of its living rooms for rats is believed by the Health Officer of Bombay, by Mr. Hankin, and by others, to be the most important of all the environment-factors. The dwellings of the poor are badly built, in bad repair, contain articles of food tempting to rats, and are accordingly swarming with rats; while the houses of the rich are well-built, are kept in good repair, so do not offer thoroughfare for rats, and articles of food are not kept in the sleeping or sitting rooms, but often altogether separately in out-houses.

Animals and Natural Infection. (14)

169. The animals which in India have been found liable to natural or spontaneous infection by plague are rats (very frequently), mice, squirrels, grey and brown monkeys.

* Refractory animals, such as pigeons when starved, were found by de Giaxa and Goslo to become susceptible.

Some cases in which cats were suspected of being so infected are mentioned by the Health Officer of Bombay, by Mr. Hankin, and by the medical officers of three affected native regiments (see Section III, paragraph 58); but bacteriological evidence has not been adduced. In the report of the Bombay Plague Research Committee it is stated that there was *post-mortem* evidence of one dog having been affected, but there is no mention of bacteriological confirmation. Dogs are also mentioned by two medical officers of native regiments, and squirrels by one (see Section III, paragraph 58). In India the animals noticed to be immune from natural infection are pigs, sheep, goats, horses, cows, birds.*

Rats. (11)

170. That rats die numerously in times of plague has long been known; but, since the discovery of the plague bacillus, bacteriological investigation has shown that at such times it is from plague actually that they die. This has been repeatedly verified in India, the bacillus being found in the bodies of rats found dead in streets or houses. By placing healthy and infected animals in contiguity, Yersin proved for mice, and Simond for rats, that the disease is communicable from animal to animal. In the present Indian epidemic, though local outbreaks have occurred in which there was no observed mortality from rats, as in Hardwar, Bellary (1898), and some of the Kathiawar and Punjab villages and towns, yet in most of the reports the mortality of rats and their connexion with the spread of the disease are emphatically noticed. Grain depôts were often the first centres in the spread of the plague. The infection having been imported into the colonies of rats that haunt the depôts, spread among them, and they died in large numbers. The grain dealers in this way were sometimes the first human beings to be affected. Rats when sick of plague come out of their holes into the light of day, tumbling about in a dazed condition, so that they have been described as appearing to be drunk or mad, and it appears that their object is to seek water to appease their thirst. When a certain number of rats have died, the remainder are apt to forsake the place; and it is evident that this migration must aid powerfully in the dissemination of the disease. It is quite possible also that the liberal use of disinfectants, by making the place intolerable to its rats, may have been instrumental in driving rats with infected individuals among them further afield. To avoid this as much as possible, Hankin has recommended the use of corrosive sublimate for infected places, and of odoriferous disinfectants for localities as yet uninfected. It has been said that concealed cases may continue among rats after the human outbreak has ceased, and Simond claims to have actually found such cases. On the other hand, the disease may continue among men after the rats have left the place or have ceased to be found suffering from plague. It is important to note also that after a village has been evacuated by its human inhabitants, the disease may still go on spreading among the rats, with the result that the village may become more widely infected, and therefore more dangerous to occupiers than before. It is supposed that the interval between two outbreaks in an epidemic at a place is the time necessary for the renewal of the rat-population. Mice do not seem to suffer to anything like the same extent as rats. That rats are an important factor in the spread of the disease in a large city is shown by Mr. Snow, the Municipal Commissioner of Bombay:—

> It would be futile to report on or discuss an epidemic of bubonic plague without considering the part played in its spread and the propagation of infection by the

* de Giaxa and Gosio found starved pigeons become susceptible

hundreds of thousands of rats which infest a city like Bombay. Their presence probably nullifies to an enormous extent the advantages to be derived from ordinary human remedies, while their absence, if such a state of things were ever found in cities and towns, would undoubtedly render plague operations far more effective.

From the time the bubonic plague had established itself in Mandvi at the end of September 1896, large numbers of rats were seen running about the streets and coming out of house connection pipes and drains in a sickly or dying condition. Many of them had buboes actually developed on the neck and groin. Bacteriological examination was carried out by the various specialists present in Bombay on numerous specimens, and the plague bacillus was freely detected. It was thus clearly proved in Bombay from the outset, as has invariably been the case in other places, that the disease attacks human beings and rodents. Those acquainted with the life-history and characteristics of the rat tribe are aware, if I may use the expression, of their extremely clannish habits. They appear to have regular means of communicating to each other any causes or symptoms of alarm, disease, and danger. As an instance of this I may mention that when the well-known preparation "rough on rats" has been used with success in an infested house for a few days, the rats altogether disappear and will not be found to return for several months, sometimes longer.

In almost every quarter of the city where the bubonic plague appeared in force it was preceded by the presence of dying rats in considerable numbers. This condition was noticed both in the houses, open streets, and gardens. In addition to this, a regular migration of rats speedily manifested itself; its course was, generally speaking, from east to west and thence up the sides and centre of the island due north. Minor migrations also took place in the south of the city, and that on Malabar Hill was especially noticeable.

The bubonic plague travelled principally from east to west and then north, throwing out branches to the south, and obtaining a footing on Malabar Hill later on. By the commencement of December nearly all the rats had disappeared from Mandvi and adjacent quarters of the city, while they were noticed in Kamathipura, Tardeo, and Byculla in great numbers, many of them being found dead. The bubonic plague followed in their track with unerring regularity. I was so struck with this portion of the plague phenomena that, in the end of December and January, I made a series of verbal inquiries from natives in various parts of the town. The replies were invariably the same, that the rats had disappeared from the centre of the city, and were observed in great numbers on the west and north. In my opinion it is useless to seek further for the origin of the severe outbreaks in Worli village, Mahim, and Bandra on the west, and Parel, Naigaon, Sion, and Dharavi on the northern side. The enquiries I made showed that vast numbers of rats flying from the danger of the pestilence moved steadily in those directions and were noticed in numbers in places where they had not before caused remarks. In this way not only would the local stock of rats have become infected, but the pestilence would be carried far and wide through the various houses. The great majority of the rats seem finally to have left the island, for in most of the infected localities only a few have been noticed up to the end of July where swarms existed before. The probability is that thousands of them crossed into Salsette and were in great measure the cause of the outbreak in so many Salsette villages of the Thana District.

The migration of the rats on Malabar Hill was of later occurrence, as the plague did not get a firm hold there till the commencement of 1897. Many rodents were observed dead or dying in the houses along the Walkeshwar, Pedder, and Nepean Sea Roads, and subsequently on the ridge of the hill, just before disease broke out in force. By the middle of March not a rat was to be seen or heard on Malabar Hill, and yet in ordinary times they infest the whole locality and are constantly appearing or making their presence known. They have never returned, or only such a few as to be unnoticeable. Since last March, on the ridge where they were very plentiful, I have never seen a rat, and only a few of the musk tribe remain.

Precisely the same phenomena as regards rats have been noticed in Karachi during the recent epidemic. Dead rats were found in the vicinity of many infected houses as far back as December, and in one of the principal streets running through the main bazar dead rats were picked up in hundreds during the first week of February, at which period and subsequently plague was raging in the vicinity. The march of the rats in Karachi was from west to east, and the outbreak and course of the plague in the various districts corresponded with and followed their migration.

The rats at Karachi finally proceeded in great numbers to the Civil Lines, where they were noticed in swarms such as had never before been seen there. The epidemic in these lines was of the slightest and practically confined to a few servants of European residents. The obvious conclusion is that the rats migrate on the first symptoms of danger, and dropping all their sick and diseased as they go along, keep ahead until they reach a place of comparative safety or have obtained freedom from the disease. The return of the rats has been noticed in several godowns in Karachi since June, and this, coupled with the fact that the plague has entirely disappeared, may be regarded as a sign that all danger is over, at all events for the present. It will thus be observed that, as far as it is possible to compare a small city like Karachi with Bombay, precisely the same phenomena have been observed in regard to the movements of rats and their connection with the propagation of bubonic plague.

The conditions detailed above are of the gravest import, and must largely influence the spread of the plague and the efficacy of any measures to be devised against it. It is indeed difficult to see how any measures of disinfection or segregation could fully avail until the migration of rats had ceased and the infected localities were free of this moving pest. While it is clear that until some effective means of destroying the rats *en masse* or preventing their migration is discovered the restriction of the spread of plague at its outset in any large city or town becomes an impossibility. It is extremely unlikely that any effective measures will ever be devised for dealing with this contingency, and while the migration which in Bombay lasted in the various districts for several months was going on, any advantages to be obtained from segregation and other measures were reduced to a minimum.

In one infected house in Mokundpur in the Punjab as many as 200 dead rats were found; and the finding of them in or near infected houses was in the affected parts of India also very common. They were not always found in the houses in which cases of plague had occurred, but sometimes in the houses surrounding it. Cases of plague on board the steamers *Shannon* and *Patna* were, according to Simond, preceded by the finding of dead rats on board. It has been supposed that careless or incomplete burial is apt to lead to the spread of plague, by giving rats an opportunity of gnawing the dead body, and the following case, which occurred in the village of Khankhanan in the Punjab, shows that the danger may not be altogether imaginary. An old woman died of plague, and her body was locked up in the room for medical inspection. When the medical officer arrived next morning, it was found that the nose and part of one cheek had been gnawed away. The body was burned as soon as possible. In the next few days every house in the block of buildings in which the corpse was found was affected, and, when the houses were afterwards disinfected, a number of dead rats were found in them. If men suffered without rats in Hardwar, rats appear to have suffered without men at Mahim and perhaps Kankhal (at first); the rats of Old Kurla are supposed to have conveyed the disease to the rats of New Kurla; in some cases the advent of a plague-sick man to a house was followed by plague among men; in some first by plague among rats and then by plague among men; cases have already been given where rats are supposed to have conveyed the plague to men; Hankin quotes the following case from Collie, showing the progression—clothes, rats, men. A man lost his wife at Bombay. Ten days after he took her clothes and jewellery to a house of his in a village near Hurnai in the Ratnagiri District. About a week after dead rats were found in the house and its vicinity. Six members of the family died, the last being the man who had come from Bombay. None of the others had left the village, which, after this importation, was severely visited. Cases have already been given in which the order was man, clothes, man, without the intervention of rats. But the most curious cases are those in which the arrival from an infected locality of healthy men, who do not

themselves subsequently develope plague, is followed by plague either among the inmates of the visited house, or first by plague among the rats and then among the inmates. Several of the different cases mentioned above are given in the following very interesting extract from the report on Thana District by Surgeon-Major A. V. Anderson, Deputy Sanitary Commissioner, Western Registration Division :—

With regard to the mode of conveyance of bubonic plague from place to place, it would appear that towns and villages remote from an infected centre become infected by human intercourse, while contiguous places frequently become infected by rats carrying and propagating the disease.

The latter mode of infection is well seen in the history of the progress of the disease through Bándra, Páli, Chuim, Santa Cruz and Joo, and also in the case of Old Kurla village, which became infected by rats from New Kurla.

In Bándra, which is practically a suburb of Bombay, the first local case occurred on 3rd December in a house in which dead rats had been found about one week before; and the disease at once spread in this locality. On the same date another local case had occurred in another part of the town in a house where no rats had died. The disease did not spread in this locality, and it is possible that the infection had been caught elsewhere.

In Páli dead rats were seen on the 6th or 7th of January, and the first case occurred on 13th January.

In Chuim rats died in the beginning of February, and the first case occurred on the 9th of February, although it was not reported till the 12th February.

In Dánda in the same way dead rats were found in several houses prior to the outbreak of the disease on 11th February.

The above four villages, separated from each other by a distance of about half a mile, are included in the Bándra Municipality.

In Santa Cruz, two miles distant from Bándra, dead rats were found on 12th February, and on 15th February the two first cases occurred in the house in which the dead rats were found.

In Joo, which is separated from Dánda by a creek, dead rats were found in a house about the 10th of April. The people thereupon removed to a shed for 10 days and then returned to the house which had not been disinfected, and three days after their return the first case occurred in this house.

It would appear that the Bándra rats spread the disease in the adjacent villages, as they entirely disappeared from the town, and are only now, in the beginning of June, re-appearing.

Dead rats were in the same way discovered at an early stage of the local outbreak in the villages of Vela Párla, Andheri, Goregaon, and Padali, which form an almost continuous line of houses along the Bándra-Ghodbandar Road, the intervals between the various villages being at that time filled up by the sheds of Bombay refugees.

The disease appears to have been carried along this line of road, as it was carried in Bombay itself.

In Old Kurla village, which is only separated from New Kurla town by less than half a mile of open fields, no case had occurred, though the disease was very prevalent in New Kurla during January, February, and March.

On the 4th of April rats died in the house nearest New Kurla, and although that and some of the adjoining houses were vacated and disinfected, the first cases occurred in the village on 8th April. Here the presumption is that the rats came from New Kurla and carried the disease with them.

In all other instances which I have investigated we find a distinct history of the introduction of the disease by human intercourse.

In most places as in Kurla, Bassein, Chembur, Trombay, Malád, Chinchni, Thána, Bhiwndi, Bháyndar, etc., we have a history of persons coming sick from an infected locality or falling sick a day or two after their arrival prior to the occurrence of local cases.

In other instances we find the disease introduced by persons themselves in good health coming from an infected locality.

In Agáshi the first local case occurred in the person of a Shimpi woman, to whose

house some friends from Bombay had come to live. None of these Bombay people were sick or were afterwards attacked.

In Kelwa, also, the first local cases occurred in the person of two Shimpis to whose house some Shimpis from Bombay had come five days before. These Bombay people were in good health, and after staying three days they returned to Bombay.

In both the above instances rats died in the houses after the arrival of the people from Bombay and before the persons living in the house were attacked.

It would appear that rats are extremely susceptible to the disease, have a short incubation period, and propagate the disease locally. It is improbable that they intensify the poison, as in Máhim rats died in at least three different houses and no local cases occurred in the town.

At Vesáwa a striking instance of the disease being carried by an apparently healthy person occurred.

The first imported case at Vesáwa occurred on 30th January in the person of a Bráhman who came sick from Bombay. The Bráhman schoolmaster of Vesáwa visited this man while he was sick and attended his funeral on 31st January. The schoolmaster lived in the village Talátí's house. On the 2nd February the Talátí's nephew, who lived in this house, was attacked by plague, while the schoolmaster himself was not attacked till the 5th of February.

In Marol, also, the first case occurred in a house to which a number of people had come from Bombay to attend a wedding. These people were in good health. Here also rats died in the house after the arrival of the Bombay people and before the first human occupant was attacked.

Again in the village of Madhan, an isolated case occurred prior to the outbreak there, in the person of a man to whose house a man from Bombay had come to live.

Four or five days after this man's arrival rats died in the house and the people moved out into sheds.

A day or two afterwards the local occupant of the house was attacked and died, while the Bombay man escaped.

Some of these cases are given with ampler details by Mr. Logan, Collector of Thana. The Bombay Plague Research Committee says it is evident that infection may be carried by rats to persons who have never been brought into contact with plague patients nor with persons visiting plague patients, and whose food and clothing could not have been contaminated in any other way; and Simond (page 636) gives cases which seem to support this view. It seems likely, however, that rats play a greater part in the dissemination of plague within a village or town than in its conveyance from village to village or town to town, this latter being more frequently the work of men, either in person or by means of clothing. It has been stated by Clarkson that if the plague is brought by rats, men are attacked in a few days, but that if it is brought by men, neither men nor rats are attacked for a month or six weeks after; but some of the cases given by Logan and Anderson contradict this. Ogata stated that in Formosa handling dead plague-rats was regarded as dangerous, and he himself seems to have been alive to the possibility that the fleas on the animal might constitute the danger. Simond and Hankin quote a Bombay case in which 20 coolies were employed to gather and dispose of dead rats in a warehouse, and 12 fell ill of plague within 3 days. Simond mentions the case of a coachman who picked up a dead rat and threw it away on the 13th of the month, and was attacked on the 16th of the same month. Hankin gives another case in a man whose duty it was to clean a house in which the bandicoot rats had been attacked, and to remove the dead rats. An important point noticed by Simond is that when a man gets plague as a result of handling a dead rat, his bubo is at least just as often inguinal as axillary. This seems to lead up to the idea that though the rat is an important agent in the spread of plague, it is not absolutely necessary, and that there is a missing link between the rat and man. Simond says that

so long as the rat's body harbours fleas, it is dangerous, but that after the fleas have deserted it (probably in about 24 hours), it can be handled with impunity. Notwithstanding the opposite opinion of Bitter and Rogers, it would appear that in India rats have played a very important part in the dissemination of the disease; but Payne and Hankin both notice that rats may not have had much or anything to do with the spread of plague in England in the old days; and Hankin suggests that even in India the importance of its rôle may be different in towns and rural areas, or even in one part of India and another.

Animals and Artificial Infection. (15)

171. Haffkine found that horses, goats, cows, and sheep were immune against artificial infection by inoculation. The German Plague Commission found pigeons,* fowls, geese, pigs, to be absolutely refractory, and dogs almost so. In the case of cats, sheep, goats, cows, horses, there was more or less general and local reaction, but no plague developed, and all the animals recovered. Of all the animals tested, says the German Plague Commission, the rat is by far the most susceptible. Simple inoculation with the smallest quantities of a culture invariably produces fatal plague in a few days. But so susceptible is the rat that it is not necessary to wound it at all: it can be infected from the unwounded, mucous membranes, and by way of the alimentary canal. Rats died, whose conjunctiva or nasal mucous membrane had been merely touched with a small quantity of a pure cultivation. Others died after having been fed with very small quantities of bacillary culture, or after having gnawed the bodies of rats dead of plague. As this gnawing of the bodies of their own dead is a common habit of rats in a state of freedom, it is easy to see one reason why plague spreads so rapidly among them. Some rats into whose mouths pure cultivation was trickled, died of plague. In one of the five cases the path of infection could not be traced; but in the others it was either aspiration into the lungs, or, as shown by the presence of local buboes, through the mucous membrane of the mouth. The grey monkey, says the German Plague Commission, is as susceptible as the rat to inoculation, natural or artificial, by minimal quantities of the virus through the skin; while the brown monkey, being refractory to small quantities, can only be inoculated artificially. It has since been shown, however, that the brown monkey is susceptible to natural infection, though, possibly, not so readily as the grey. To give plague through the alimentary canal to brown monkeys, they must be fed with large quantities of plague culture. The animals die in a few days, and show severe hæmorrhagic infiltration of the stomach and intestines. Hankin considers that in order to infect a rat by feeding, the bacillus used must be a very virulent one; and Yersin, Calmette and Borrel state that plague bacilli directly taken from man are effectual. Yersin found that he could infect mice sometimes, rats almost always, by feeding them with pure culture, or with pieces of plague-spleen or liver. Sticker says that intestinal plague can be demonstrated by feeding rats and monkeys, there being lesions of the mucous membranes and symptoms like those of intestinal anthrax or malignant enteric fever. Bandi and Balistreri found that in guinea-pigs plague by feeding was a more chronic process than plague of other introduction, and that it sometimes resulted in secondary plague pneumonia. Klein discovered that in guinea-pigs dead of plague produced by sub-cutaneous injection of a virulent culture, plague bacilli could be found on

* Found by de Giaxa and Gosio to become susceptible after starvation.

the free surface of the mucous membrane of the trachea and larynx, and in the slimy fluid contained in the inflamed duodenum. Wyssokowitz and Zabolotny in Bombay found that, while they could give primary plague-pneumonia to monkeys by injection of plague bacilli into the trachea, injection into the stomach did not produce plague, though any little wound of the buccal mucous membrane readily led to infection. Simond obtained negative results from feeding rats, mice, and monkeys; also from inhalation in a monkey; also from application to a little wound in a grey monkey. In a note to Simond's paper Roux says that it is quite easy to infect rats by placing on their nasal mucous membrane, without excoriating it, a few plague bacilli from an agar culture or from the spleen of a plague-animal; and suggests that it would be interesting to know whether the nasal mucus of rats affected with plague is infectious. Wyssokowitz and Zabolotny, experimenting with monkeys, found that if the amount of virus inoculated by the skin was great there was œdema; but a small wound made in the palm of the hand with a needle showed absolutely no re-action, and quickly became invisible, though a local bubo formed, and the animal died in from 3 to 7 days. No re-action at the wound was discoverable at the *post-mortem* examination. Similarly, a monkey inoculated by a pin-prick on the foot developed inguinal and retro-peritoneal buboes, and died in 10 days. Lyons corroborates this account. Mice and rabbits are also among the animals to which plague can be artificially communicated.

Insects. (16)

172. Yersin in Hongkong, having noticed a number of dead flies in his plague laboratory, triturated them with water, and injected them into a guinea-pig, with the result that the animal died of plague. Nuttall afterwards found that flies fed with plague organs, though they ultimately died, could continue to go about several days with still virulent bacilli in them. In Formosa, Ogata counted 15 and 20 fleas, respectively, on two dead rats found on the road, but on a rat which had been dead for some hours he found none. He rubbed up seven of the fleas found on the dead rats with water, and injected them into mice. One mouse died, the other did not. Some guinea-pigs in his laboratory about this time died of plague, and he suspected that the infection might have been conveyed by insects. if not by food. In the fleas taken from the dead rats he discovered virulent bacilli, and recognised that the bacilli might in this way be conveyed to man; and he recommends that the sick of plague should, for the sake of others, be kept under mosquito-curtains. Hankin noticed that ants cut up dead rats, and carried the fragments off and about, and therein he recognised a danger; but, as they did not die themselves, and did not retain the infection long, he considers the danger not great. They were found infected only where rats were dying, not where men only were dying. The German Plague Commission considers it doubtful whether insects can inoculate the disease, and certain that mosquitoes cannot, looking to the immunity of sick-attendants, who are constantly being bitten. They found, however, that fleas taken from a rat found dead contained virulent bacilli, which, inoculated into a guinea-pig, produced plague. Sticker, one of their members, formed a decided opinion as to the rôle of insects above-ground, as contrasted with the rôle of rats underground, mentioning especially those which feed on living or dead rats,—ants, pediculi, and perhaps mallophagi and acari. Except in the case of pneumonic plague, he considers insects the chief agents of infection-carriage from the sick. Simond found that the flea which infests rats attacks both men and dogs. A

healthy rat keeps itself free from fleas; but when a rat falls sick, and loses the energy to keep itself clean, the fleas multiply upon it and overrun it. In several cases he found in the intestinal contents of such fleas bacilli morphologically identical with those of plague. The fact that he had no opportunity to cultivate them matters little in view of the success obtained by others, as noted above. He inoculated three mice with triturated fleas, and one of the mice died in 80 hours of plague. The others died in 9—12 days, but the bacillus could not be found in them. A rat suspected of plague was placed by Simond in a large wide-mouthed glass bottle. It was seen to have a few fleas upon it, and 20 more from a cat were thrown in upon it. At the end of 24 hours the animal seemed to be dying. There was then lowered into the bottle a little iron cage with only one side grated, containing a small rat. The first rat died soon after, but its body was left in the cage for 36 hours. It was found to have died of plague. The young rat remained in the cage and bottle. It died on the fifth day of characteristic plague. Three more similar experiments were afterwards made, one successful in the case of a mouse, and two unsuccessful in the case of two adult rats. Simond attributes the two successful results to the agency of the fleas, not only because the animals were separated by a grating, but also because he never succeeded in infecting a rat or a mouse by placing it in contact with an animal inoculated in the laboratory and free from fleas. In one case the body of a rat dead of spontaneous plague at Karachi, and freed from fleas, was left for 24 hours in a cage containing 7 healthy rats, none of which contracted plague. One would have almost expected to be told that the seven rats had devoured their dead companion, and perhaps that some of them had contracted the disease in that way. Simond cannot explain exactly how the flea infects. It is not likely that the flea's lancets can retain the infection long; but it may be readily observed that the flea, during suction, deposits where it sits a drop of liquid dejection, and in cases where this drop is a cultivation of the plague bacillus, it may inoculate the wound made by the flea's lancets. Further researches are required as to the persistence and ultimate fate of plague bacilli in the bodies of fleas.

Experimenting with bugs, Nuttall found that they might contain virulent bacilli but, by injections of their crushed bodies into mice, that their infectiveness died out in at the most about 72 hours. When bugs containing virulent bacilli were made to bite mice, no positive result was obtained. Yamagiwa in a little sore caused in a man by a bug-bite, or said to have been so-caused, found the plague bacillus. In several cases Simond thought bugs were most likely to have been the agents of infection. He considers that the transmission of the microbe by means of parasites explains most of the hitherto inexplicable points in plague-propagation. Hankin thinks it is possible that, in order to continue virulent, the microbe has to pass from the rat to another medium, the soil, or stagnant water, or perhaps the body of an insect, and thence to another rat; but that, in any case, more research is necessary before a positive opinion can be justified.

The rôle of flies would, of course, be confined to taking up, carrying about, and depositing the virus; but skin-piercing insects may take a more active part in the infection of man. Blood-sucking parasites can obtain blood containing the plague bacillus only from a septicæmic case, primary or secondary.

173. It has been proved by experiment that the virus can be introduced

Mode of entrance of the bacillus. (17)

into certain animals by the unexcoriated conjunctiva or nasal mucous membrane, by the trachea, through the intestine by feeding, through the skin by puncture. In the case of man it has been mentioned above that there is no Bombay evidence that the plague virus can obtain primary entrance by the intestine or stomach; but the presence of local buboes in certain cases has proved that it can penetrate by the lining of the mouth and naso-pharynx. Most of the Indian observers, except Simond, consider it certain, or almost certain, that pneumonic plague is directly infectious from lungs to lungs. That the virus often gains entrance through the skin is widely believed; but the difficulty of proving this lies in the fact that the point of entrance is not usually either suspected by the patient or marked by signs of reaction. It has been noticed above, however, that in monkeys inoculated by an infected needle there is no local irritation. And, as a matter of fact, in a number of instances, though not in a majority, points of entrance were found on the extremities, from which points plague bacilli could be obtained, a bubo also existing in the nearest gland-group above the point of inoculation. Cases in which primary skin lesions could be found were estimated by Simond for Bombay at about one in twenty, and for Formosa by Yamagiwa at about one-seventh of the total cases. It is a common opinion that those who go barefoot are more liable to become infected; and Aoyama asserted that the Chinese, who went barefoot, had nearly always inguinal buboes, the Japanese, who wore shoes, almost always axillary buboes. But Wilm pointed out that the 300 English soldiers engaged in plague operations at Hongkong worked with their hands, while their legs and feet were protected by clothing, and yet the ten affected had mostly inguinal buboes. Simond gives a table of 61 cases in which primary lesions (phlyctenules) were observed with buboes corresponding. It shows that 51 primary lesions were in the skin of the lower extremity, 43 of them about the foot or ankle, and 19 of them on the dorsum of the foot; and Simond points out that they occurred on places where the skin is thin and delicate, and as such the favourite biting-places for fleas and other parasites. Yamagiwa speaks of one patient who on admission had a small sore on the leg, said to be the result of a bug-bite, and of the finding of the bacillus in this wound. The Austrian Plague Commission, on the other hand, never found a recognisable entrance-place in the skin, and never saw any cases that they considered must have been caused by insect-punctures. They, like others, point out the usual immunity which mosquito-bitten attendants of mosquito-bitten patients enjoy. The German Commission and the Plague Research Committee draw attention to the possibility of self-inoculation in scratching the skin; and the latter say that it is not improbable that plague cultures grow in the *ghee* always present under the nails of natives who eat curry, and that it is a common custom among natives for friends to receive the sputa of the sick in their hands, and to use their hands and clothing in wiping away discharges from the patient's mouth. In opposition to the common view that plague enters by little wounds already existing on the extremities, McCabe Dallas shows that there was an old belief that the presence of open wounds was protective against the plague (General Gatacre's Report, page 96). And it has been mentioned above that Simond failed to inoculate a monkey by a small open wound on the foot. But it is a matter of common knowledge that a wound inoculated at the time it is made is much more dangerous than an older wound placed in contact with a virus. Since the classical cases of Aoyama and

Ischigani at Hongkong, several self-inoculations by accidental puncture at *post-mortem* examinations have occurred in India. Cases are mentioned by Thomson (Gatacre's Report), Jennings (Campbell's Report), Simond (the case of Sticker), Weir (the case of Sticker), Clemow, Prall, Green; some doubt, however, resting upon the diagnosis of the two cases reported by Green. There may be other Indian cases on record, and it is possible that a case may have been counted twice from having been reported by two different writers. With reference to such puncture cases it has been customary to say that some doubt must remain as to the reality of the inoculation because plague was prevailing at the time. But as the symptoms appeared within three days of the apparent inoculation, and as appropriate local buboes formed, the doubt here appears to be too scrupulous. Netter and also Manson give some account of some inoculation and other experiments on human beings in Egypt in the beginning of the century. The only case of laboratory infection known is that of Vienna, and both the original and the succeeding cases appear to have been of the primary pneumonic form.

Incubation-time. (15)

174. So far as is known, it seems pretty certain that in the case of men and monkeys direct inoculation through the skin is followed by symptoms within 3 days; and there is reason to believe that with pulmonary infection the incubation period is much the same, perhaps a little longer. There is no doubt, however, that the time between contact with a sick person and the development of symptoms is often much longer. The probable explanation of such a case is that the subject did not then receive the virus into his system, but carried it away with him, and that the actual inoculation took place subsequently. He could only have carried it away upon his person or his clothes, in the form either of patients' excreta or of blood-filled parasites. It follows that if the bodies and clothing of all suspected persons be thoroughly disinfected during detention, the detention-limit of 10 days adopted by the Government of India is ample.

Propagation. (16)

175. It is known that plague is propagated from man to man and from rat to rat. There is also strong evidence that it is conveyed from man to rat and from rat to man; in fact, it appears that in India the rat plays in the propagation of plague among men, if not a necessary, at least a frequent, part. It is also known that clothing may be the intermediary of infection between the sick and the hitherto healthy. In the case of plague-pneumonia the disease is probably propagated directly from lungs of man to lungs of man; and it is possible that among rats it may be conveyed from individual to individual by mucous membrane contact. But plague-pneumonia is after all a comparatively uncommon form of the disease, and the difficulty is to explain the method of propagation in the other and commoner forms. It is commonly taken for granted, as has already been mentioned, that the bacillus exists in the soil, and that barefooted men are therefore very liable to infection through casual wounds and abrasions. But, as has been shown above, there is no proof that the bacillus is a frequent inhabitant of the soil, even of infected places; and there is something strange in the idea that large numbers of the population should have on their extremities little wounds and sores in a condition suitable for the reception of infection, and that such wounds should only admit the plague bacillus. It is well known that wounds that have reached a certain stage of healing are no more, or little more, liable to take up infection than the unbroken skin, and it is also known, not to mention the ubiquitous

pyogenic cocci, that in the soil, especially if it be rich in organic material, are very commonly present, very actively pathogenic microbes, such as those of tetanus and of malignant œdema. Of all wounds the most dangerous is that made with an infected instrument, the wounding and the inoculation being simultaneous. It is imaginable that if a man has the virus under his nails or upon his fingers, and scratches himself with sufficient energy, or if the scratched surface happen to have some plague bacilli smeared upon it, or if with the freshly-scratched surface clothing defiled with the bacilli come in contact, that man shall inoculate himself with plague. Now one of the most usual causes of vigorous scratching is the presence of vegetable or animal parasites; and that is one way in which parasites may aid in the spread of the disease. But some animal parasites themselves inflict punctured wounds, and if the insect inject the bacilli into the wound, or puncture with contaminated lancets, or if the bacillus, whether by the agency of the insect itself or not, be upon the skin that is pierced, the result is likely to be plague inoculation. If, as appears, the flea of a man is ready to attack not only another man but also a rat, and the flea of the rat to attack a man, and if an infected flea can bide its time in unworn clothing, great possibilities of transmission are disclosed. This is the line which Simond takes in a reasoned and lucid paper, though the completeness of his scheme is somewhat ahead of the proved facts. His concluding words are:—The mechanism of the propagation of plague comprehends the transport of the virus by rats and by men; its transmission from rat to rat, from man to man, from man to rat, and from rat to man, by parasites. The measures of prophylaxis must, therefore, be directed methodically against each of these three factors: parasites, men, rats.

Conclusions.

176. Plague is a communicable fever, the virus of which is a bacillus. In a certain small proportion of cases the bacillus enters by the lungs, but for India its entrance by the intestine has not yet been proved. In the majority of cases it appears to enter through the skin, but the mechanism of this entry has not yet been absolutely demonstrated. There is, however, sufficient suspicion attaching to the possible rôle of insects as not only to justify but to call for further research.

History of Plague in India. (20)

177. The first trustworthy information of the occurrence of plague in India dates from the year 1812, when an epidemic broke out in Cutch and spread into Gujarat and Sind. In 1828-29 a disease absolutely like the Pali plague is reported to have been prevalent at Hansi in the district of Hissar in the Punjab. In 1836 another epidemic broke out at Pali in the Marwar State of Rajputana, and spread over a considerable area causing great loss of life. Along with these isolated outbreaks there exists an endemic centre of plague on the southern slopes of the Himalayas in the districts of British Garhwal and Kumaun. The existence of this centre can be traced back with certainty to the year 1823, and it has frequently since been the scene of outbreaks of varying degrees of severity. The disease is there known as Mahamari.

Koch states that plague is also endemic in Uganda, a part of Africa which is now in touch with India, owing to the employment there of natives of India for military and other purposes.

Plague in India in 1897. (21)

178. During 1897 the plague continued to spread from Bombay, both creepingly and by springs, the most notable instances of the latter mode of extension being the

infection of Karachi, Khandraoni, the Hardwar Union, and the Jullundur and Hoshiarpur districts. While the plague spread gradually from the Bombay and Karachi centres, it at the same time sent out long streamers of exported cases along the Indian lines of communication by land and sea. The extremes for indigenous cases were North Sind, the Punjab, the North-Western Provinces, Hyderabad(?), Belgam, Hubli, and Goa; while imported cases occurred as far apart as Baluchistan, Kashmir, Madras, Hyderabad, and south-west of Hubli.

The maps to which reference ([23]) is here given show the incidence of the disease better than verbal description.

Plague in Bombay City.

179. In the beginning of December 1896 there had been a large rise in the amount of plague, and this rise continued progressively until the end of the month. Throughout January 1897, the high figure was maintained, and a further rise occurred at the end of that month. February saw the height of the epidemic. During March the disease began rapidly to decline, and the epidemic waned steadily throughout April, May, June, and the first-half of July. From the middle of July began the recrudescence, the second great culmination being reached in February and March 1898. The following table is derived from the reports for 1896 and for 1897 of the Bombay Municipal Health Officer:—

Months.		Number of attacks.	Number of deaths.	Percentage.
September	1896	135	79	58·51
October	,,	406	313	77·09
November	,,	339	273	80·53
December	,,	1,664	1,271	76·38
TOTAL		2,544	1,936	76·10
January	1897	2,537	2,110	83·1
February	,,	3,532	3,349	94·8
March	,,	2,694	2,424	89·9
April	,,	1,866	1,309	70·1
May	,,	448	345	77·0
June	,,	202	104	51·4
July	,,	72	42	58·3
August	,,	124	72	58·0
September	,,	247	171	69·2
October	,,	290	180	62·2
November	,,	378	254	67·1
December	,,	924	643	69·5
TOTAL		13,314	11,003	82·6

The highest mortality in Bombay from plague occurred in the suburbs, in the districts of Mahim, Sion, Kamathipura, Parel, Sewri, and Byculla. A lower mortality occurred from plague in the surface-crowded portions of the city than in the suburbs, the explanation being, in the opinion of the health officer, the difference in ventilation. The *chawls* in which the poor classes live have often a gully on one side, and into this gully windows open. In consequence of this, there is more air circulation in the rooms in which they live, even in *chawls*, than in the central and dark rooms in the old-shaped buildings in the suburbs, although these buildings may be in the fields or surrounded by open spaces. The validity of this explanation is decidedly doubtful. Thus, the Plague Committee's Report for 1897-98 states that in Mandvi the plague chiefly occurred in large well built houses, to few of which on the score of want either of light or of air could objection be taken. In giving the following table

for 1897 the Municipal Health Officer mentions that the mortality in some classes cannot be accepted as correct, not only from concealment of cases, but also from imperfect recognition of the disease:—

Classes.	Population by census of 1891.	Number of deaths.	Death-rate per 1,000 of population.
Jains	25,225	373	14·78
Brahmins	37,982	397	10·45
Lingaets	784	26	33·16
Bhatias	7,891	59	7·47
Hindus of other castes	451,465	7,172	15·88
Hindus, low caste	45,169	1,084	23·99
Musalmans	155,101	846	5·45
Parsees	47,458	357	7·52
Jews	5,021	30	5·97
Native Christians	29,712	580	19·52
Eurasians	4,330	42	9·69
Europeans	11,290	20	1·77
Negro-Africans	146	4	27·39
Buddhists	190	...	...
Other and unknown castes	...	13	...
Total	821,764	11,003	13·39

The most correct of the above statistics seem to be those of the Europeans, the Brahmins, and the Parsees. In habitations the number of deaths was generally lowest in the highest rooms of the highest buildings.* Such as they are, the figures indicate that the mortality was greater among males than among females, and greatest among males between 35 and 40 years of age. According to the health officer, the experience of 1896 was repeated, in that cases in buildings were generally preceded by the occurrence of the disease among rats, and that the rats appeared almost always to travel from south to north and from east to west, and to infect one side of a street first and then the other, and that plague seemed to stick to places presenting favourable hiding and feeding places for rats, and that measures which, even unintentionally, resulted in the closure of rat-holes and the demolition of rat-homes, were of use in preventing recrudescence of plague in buildings. Just before the rise of the plague curve in July the city had been suddenly crowded by the arrival of about 300,000 or 400,000 immigrants from the mofussil, most of them in search of work. Labour was scarce, and the price of grain very high. Thus many infected or insanitary houses which had been declared unfit for human habitation were unavoidably reoccupied.

It was noticed that the first onset of the disease was rarely rapid in any locality. Isolated, imported and, perhaps, endemic cases occurred from time to time, followed by one or more small groups of endemic cases. Then the disease, having obtained a footing in the locality began to spread, and soon increased with rapidity and virulence, until the place became thoroughly infected. It was also noticed that infection appeared to spread from house to house, neighbouring houses forming groups in which many cases occurred. The infection was hardly ever found at all evenly distributed over the locality.

The origin of the outbreak remains unknown, but as stated on page 149 of the report for 1896, the suspicion which points to China is the strongest.

Plague in the Bombay mofussil.

180. The following table is, with the omission of Bombay City, taken from the report of the Sanitary Commissioner for the Government of Bombay:—

* But see paragraph 168.

Districts.	Total for 1896.		January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total for 1897.		Grand Total from September 1896 to 31st December 1897.	
	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Aacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.
Khándesh	6	5	6	1	8	4	7	1	2	2	3	3	5	5	...	...	2	1	1	1	...	...	1	...	68	58	103	76	109	81
Násik	...	...	24	16	10	10	6	3	4	2	1	...	...	...	5	4	132	92	314	271	227	175	268	212	398	290	1,389	1,075	1,389	1,075
Thána	129	95	423	324	1,208	948	1,709	1,350	1,373	999	429	262	107	17	88	4	149	47	249	77	363	46	161	26	93	56	6,352	4,156	6,481	4,251
Kolába	14	13	19	19	114	84	212	158	629	608	228	188	36	35	22	16	38	28	81	62	51	38	48	40	39	33	1,517	1,309	1,531	1,322
Ahmednagar	6	4	5	3	7	4	8	4	...	1	...	...	...	...	...	...	12	9	44	32	117	77	138	89	220	167	551	386	557	390
Poona	53	39	205	159	300	238	1,284	910	730	510	98	78	21	15	198	118	954	619	1,147	825	2,272	1,640	2,951	2,239	1,811	1,520	11,971	8,871	12,024	8,910
Sholápur	1	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	15	9	260	199	1,211	983	1,357	1,162	2,846	2,353	2,847	2,354
Sátára	...	...	3	3	3	3	3	2	1	1	...	...	...	...	198	107	1,316	1,024	2,118	1,543	4,214	3,127	3,692	2,858	1,694	1,363	13,242	10,031	13,242	10,031
Ratnágiri	...	...	5	5	6	6	...	...	...	...	...	...	...	...	...	...	9	9	...	...	2	1	5	5	...	...	27	26	27	26
Belgam	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	6	222	162	331	275	569	444	569	444
Dhárwár	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	10	27	23	6	5	46	38	46	38
Bijápur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	2	3	3	3	3
Kánara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Surat	23	21	34	27	174	118	903	703	793	615	120	98	19	19	66	36	46	22	178	126	459	274	907	579	617	453	4,316	3,070	4,339	3,091
Broach	5	5	4	4	5	2	6	2	1	1	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	16	9	21	14
Kaira	11	10	3	...	2	...	1	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	1	1	9	3	20	13
Panch Mahals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad	54	29	24	19	20	10	22	15	9	6	7	6	3	3	...	...	2	2	1	...	1	2	1	1	1	1	91	65	145	94
Karáchi	63	59	844	768	1,202	1,052	1,232	905	787	574	244	179	26	20	13	9	...	...	1	1	9	1	66	48	18	15	4,442	3,572	4,505	3,631
Hyderabad	1	1	30	26	24	19	134	98	389	295	65	60	1	1	...	...	...	...	...	...	...	...	...	...	...	...	643	499	644	500
Thar and Párkar	...	...	...	...	1	1	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	3	2
Shikárpur	1	1	2	1	12	8	287	219	499	351	160	124	27	13	...	...	...	...	...	...	...	...	...	...	...	...	987	716	988	717
Jacobabad	...	...	...	...	...	...	2	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3	3

The figures shown are from returns received in the office of the Sanitary Commissioner for the Government of Bombay, and "do not tally with returns elsewhere published." It is known that these and all other published figures on the subject are inaccurate, and that they err on the side of defect. In Section V, paragraph 119, an attempt is made to estimate the amount of the defect, and reasons are there given for believing that it is very great. The following are the districts in the case of which the Sanitary Commissioner mentions the number of towns attacked :—

Districts.	Number of towns and villages affected with plague.
Khándesh	11
Nasik	60
Thána	96
Poona	119
Sholápur	69
Satára	194
Ratnágiri	10
Belgam	6
Karáchi	47
Hyderabad	23
Shikárpur	42

Several maps[23] have been published showing in a general way the extent of the epidemic. At the end of 1896 plague had not appeared in the districts of Nasik, Satara, Ratnagiri, Belgam, Dharwar, Bijapur, Kanara, Panch Mahals, Thar and Parkar, and Jacobabad. Indigenous cases had been reported in Bombay City, Ahmedabad, Karachi, Bandra, and Bhiwndi towns, and in one village of the Kolaba Collectorate. In Ahmedabad Town the local cases (two in number) were reported at the very beginning of the outbreak there, but the rest were imported. Imported cases only had been reported as occurring in the collectorates of Khandesh, Ahmednagar, Poona, Sholapur, Surat, Broach, Kaira, Hyderabad, and Shikarpur. In January 1897 cases occurred in the districts of Nasik, Satara, Ratnagiri, and Belgam. In February a case occurred in the Thar and Parkar district, and in March two cases in the Jacobabad circle. The first case reported in the Dharwar district was in October, and in the Bijapur district in November. The districts of Kanara and the Panch Mahals alone returned no cases of plague during the year, and the districts of Khandesh, Ratnagiri, Dharwar, Bijapur, Broach, Kaira, Thar and Parkar, and Jacobabad were but lightly visited. The rise in Khandesh in December was due to the affection of the town of Jalgaon. The Collector of Thana, Mr. Logan, writes :—

"There has not been a single instance in this district where there is even a remote suspicion that the plague had a spontaneous origin. In practically every case infection can be traced either to a stranger from an infected place or to a local resident who visited

an infected place.....There can be no doubt that the Thana plague entered every place by the agency of persons, clothes, or rats, which had become infected elsewhere. .....The plague adhered to the railway, and it almost confined itself to the area traversed by the local trains, the limits of which are respectively Virar and Kalyan..... That this plague was essentially a *bania* or trading class plague sufficiently explains why it went further along the Bombay, Baroda and Central India than the Great Indian Peninsula, the former being the line by which Gujaratis naturally fly.....The fact that the interior of the district escaped scatheless is due, in my opinion, not to its being dry, though that may be generally true, but to the fact that, firstly, the small villages of the Kunbis offered little accommodation to fugitives from the towns, and, secondly, that owing to a printed proclamation from this office to every village, the villagers exercised a strict quarantine against all strangers.....The intensity of the plague appears also to have borne no perceptible ratio to general sanitary conditions.....The only satisfactory explanation of the intensity is the liability to infection by a constant stream of immigration, *minus* promptness and vigour in segregation. Given accommodation for high caste natives and easy distance for Bombay, infection was everywhere a certainty; and the degree of it depended, I should say, almost entirely on the degree of efficiency in the machinery for stopping the spread of infection."

Writing about the same district Surgeon-Major Anderson, the Deputy Sanitary Commissioner, says:—

"With regard to the mode of conveyance of bubonic plague from place to place, it would appear that towns and villages remote from an infected centre become infected by human intercourse, while contiguous places frequently become infected by rats carrying and propagating the disease.....In some instances we find the disease introduced by persons themselves in good health coming from an infected locality; and in some of these cases rats died in the houses after the arrival of the people from Bombay, and before the persons living in the house were attacked."

In the Kolaba district the cases as a rule occurred at coast towns or villages easily reached from the sea-board, and were introduced from Bombay. The Ahmednagar district suffered from famine and plague, the Sholapur district from famine followed by plague. In the Ratnagiri district the villages affected were all near or upon the coast as in the case of Kolaba referred to above.

Plague was first detected in Karachi city early in the month of December 1896. Up to the termination of that year 63 cases and 59 deaths from plague had been reported. These cases were apparently all of local origin, the most careful inquiries having failed to discover the original case or cases importing the disease. At this period the remainder of the Sind Province, with the exception of Kandiaro and Shikarpur, into which towns cases had been imported, was free from the disease. During the year 1897 plague gradually spread along the main lines of communication; and it was not until the 16th August 1897 that Sind was declared to be entirely free from the disease. During this period 6,057 cases and 4,770 deaths had been reported in the province. Afterwards, however, a second outbreak occurred in Kotri town, the first case being reported on the 28th October 1897. The origin of the outbreak was stated to be unknown; but the Sanitary Commissioner thinks it probable that the disease was reimported into the town from an infected area outside the province. Up to the end of the year, 93 cases and 64 deaths had been reported. The last case in Karachi town was reported on the 27th July 1897, the last case in the rest of the Karachi district on the 26th May 1897. One account gives the total for the city of Karachi as 4,086 cases and 3,301 deaths in 1897.

Plague in the North-Western Provinces and Oudh.

181. Fifteen cases of plague, other than those occurring in the Hardwar Union, were reported in these provinces in 1897. Of these, eight occurred in large cities.

Precautionary measures were taken, and no secondary cases followed. Only seven cases were reported from the districts, but it is quite possible that others occurred of which intimation was not given. From inquiries made by him while on tour the local Sanitary Commissioner is inclined to think that the extensive circulation of information as to the symptoms of plague and the action to be taken may have led to the adoption of the proper procedure of isolating the sufferer in some cases where no report was made of the incident. Interest principally centres round the outbreaks in the Hardwar Union. On the 8th of April the dead body of a woman was seen by the Civil Surgeon of Saharanpur and the Sanitary Commissioner at Hardwar. They arrived at the conclusion that it was a case of plague, and took action accordingly. The deceased had only occupied the hut for two days, and on searching the pilgrim lodging-house from which she had come a woman was found recovering from a severe illness and with a suppurating bubo in the groin. It was a time of much anxiety, inasmuch as the great fair was in progress, and nearly 200,000 pilgrims were collected in the town. However, all passed off well, and the great collection dispersed without disseminating the disease. Subsequent inquiries led to the conclusion that the disease had been introduced a short time before by pilgrims from Sind. On a thorough examination of the houses in the neighbourhood of the pilgrim lodging-house above referred to three more cases were discovered, and up to the 22nd April the total number was eight. Between the 22nd April and the 16th May no cases were reported; but on the 16th May a *pujari* who had visited, and probably slept in, the infected area, died of plague, and afterwards nine more cases occurred, the last on the 8th June. Eighteen cases in all occurred. The first seven cases occurred within 130 yards of one another in a definite portion of the town, the evacuation of which for purposes of disinfection was possible. Within a mile and a half of Hardwar is situated the town of Kankhal, with some 6,000 inhabitants, and much communication exists between the two centres of population. About the middle of June an unusual mortality among rats was observed at Kankhal, and the government bacteriologist discovered the plague bacillus in some of them. Steps were taken to obviate the threatened danger, and it was at first hoped with success. But in the first week of September the special plague medical officer, who had been left in charge of this town, had his suspicions aroused that all was not right, and on the 16th of the month an undoubted case of plague was reported. About the middle of October an alarming development was the occurrence of the disease among the hordes of monkeys which infest this town. Subsequently Messrs. Hankin and Haffkine found the bacillus in the dead bodies of some, though most of the examinations gave negative results. In the case of the human inhabitants of Kankhal the diagnosis of plague was also confirmed by bacteriological examination. In all, 64 cases occurred, distributed over the greater part of the town, but so grouped together as to form definite *foci* of the disease, which were made the basis of the proceedings taken for the evacuation of infected localities. By the third week in December the outbreak was practically at an end, and early in February 1898, the town having been disinfected, the people were permitted to return to their houses. Meanwhile the disease had appeared in certain villages in the vicinity; but it was not till the 9th of January 1898 that it broke forth in the town of Jawalapur, 2½ miles distant, and with 15,000 inhabitants.

182. The origin of the plague in the Punjab is involved in some obscurity.

Plague in the Punjab.

The following account is principally derived from the Sanitary Commissioner's report :—

In February a Brahmin named Ram Saran left Khatkar Kalan, a village of 1,200 inhabitants in the Nawashahr tahsil of the Jullundur district, for the purpose of making a pilgrimage to Hardwar, a place in which the first case of plague was discovered on the 8th of April. He returned to his village on the 29th of April, and it is reported that he stayed one night at Rahon (another village near Nawashahr) on his way back, and that it was here the symptoms of the disease first showed themselves. By the time he reached his home he was very ill with high fever and delirium, and after a few days' illness he died. The people of the village in this case apparently recognized that he was suffering from some new form of fever, of which they had no previous experience, but it was not reported at the time. Shortly after the death of the first case, a Brahmin woman was attacked (a relative of Ram Saran) by name Mussammat Málin, who lived near a large well situated in this part of the village, and subsequently there were a few more cases of severe fever which caused no anxiety to the villagers, as they were ignorant of its nature and there was no tendency to an epidemic. At the end of July or the beginning of August, however, rats were noticed to be dying in a curious way in some cattle-sheds belonging to a zamindar named Hari Ram, situated not far from the well referred to, but beyond noticing the fact it does not seem to have aroused any suspicion whatever in the minds of the villagers, so far as has been ascertained, or if it did, it was certainly kept quite quiet.

In September the Chamárs, who live on the west side of the village, and whose houses adjoin those of the Brahmins living near this well, became affected. The disease then began to spread more rapidly, and by October had taken on the characters of an epidemic, and the villagers now realized that they had an infectious and very fatal form of disease among them. On the 14th October four deaths took place which thoroughly frightened them, and a report was sent to Banga Thana, and the Hospital Assistant at the dispensary went at once to the village, and as the result of his investigations he reported the disease as plague. The Civil Surgeon, Jullundur, then went to the village and expressed the same opinion.

On the morning of the 18th October the Sanitary Commissioner received a telegram from the District Superintendent of Police to the effect that plague had appeared in Khatkar Kalán, and immediately instructed the Deputy Sanitary Commissioner to meet him at Jullundur, and together they visited the village on the 21st October, when the disease was officially announced as plague. The last case at Khatkar Kalán occurred on the 4th December 1897.

After Khatkar Kalán had been declared free of plague, cases were found in other villages, which showed that the disease had spread, as on the 2nd November Jhandher Khurd, a village west of Banga, and about six miles from Khatkar Kalán, was found to be affected; the Chamárs, who were the first to be attacked, being related to the Chamárs of Khatkar Kalán. It was dealt with in the same manner, and there were here only 29 cases and 18 deaths altogether, the last case occurring on the 19th December, the total population of this village being 395. On November the 24th plague was discovered in Khán-Khána, a large village containing 2,500 inhabitants, but it is almost certain that it was present in this village some time before it was reported by the village headmen. The villagers at first were not inclined to leave their houses as they hoped that segregating the sick would be sufficient to check the disease, but a very rapid increase in the number of seizures (96) during the following fortnight caused them to understand their danger, and in the end they asked to be put out into camp. This was done, and by December 6th every one was out and the village deserted. After the evacuation of the village the disease, as elsewhere, declined, but not so rapidly as in the other villages, a fact probably due to the firm hold of the place the disease seemed to have obtained, as well as to the large number of persons under treatment, and to the cold weather which made the people huddle together more than they had previously done.

The next place the disease appeared was at a village named Berámpur in the Garhshankar tahsil of the Hoshiárpur district, about ten miles distant from Khatkar Kalán, the outbreak being reported on December the 11th. In this case the source of infection was distinctly traced to Khatkar Kalán, as a sweeper's wife ran away from that village

when her husband was attacked, and she subsequently became ill and died at Berámpur. It is reported that she escaped from Khatkar before a proper cordon had been placed round the village, and from the investigations and inquiries subsequently made by the officers detailed for duty in the infected area, there seems reason for thinking that two, or possibly three, villages were infected before it was realised that there was plague in the district. Khatkar Khurd was found to be affected on the 28th December, and had 10 cases.

Up to the close of the year there were altogether four villages in the Jullundur district and one in Hoshiárpur attacked, 274 cases and 155 deaths occurring in the Jullundur villages, and 28 cases with 20 deaths in the Hoshiárpur one. The disease thus spread slowly in the province, just as it has done in Bombay and elsewhere, and it was only in the month of February 1898, after heavy rain had fallen, that it made a sudden rise, spreading more rapidly to other villages with increase of cases.

"There seems to be no doubt," says the Deputy Sanitary Commissioner, "in the minds of the villagers that Ram Saran brought plague into their midst, and the impression is strengthened when we remember that there was plague at the time at Hardwar where the man had been. The disease at first was confined to the Brahmins, to which caste he belonged, and there seems to have been a regular sequence of cases from Ram Saran to the Chamárs who were found with the disease on them when we arrived. Further evidence was found when the people evacuated the village between October 24th and 26th.

"Up to this time none of the Rawals had been attacked. They lived in a separate 'patti' or section of the village, cut off from the rest, and had quite a different entrance to the Brahmins. But after they got out, a woman named Barkat, wife of Nabbu, was attacked and died. As it was impossible for the infection to have arisen in the new healthy camp, the inference was that she became infected from the village. On going to her house, which lay at the very end of a long *cul-de-sac*, we were surprised to find that it adjoined, back-to-back, Ram Saran's house. In fact, the two houses were under the same roof. The Rawal family had no connection whatever with the Brahmins. This infection of houses adjoining others in which plague has occurred is so common that towards the end of the epidemic in the Banga district we made special arrangements for the disinfection of all houses surrounding, and especially those back-to-back to "infected houses." The agency of communication is probably rats. But whatever the agency may be, the fact remains that houses touching infected houses although, as in this case, having their entrances in different streets and occupied by people totally different in caste and habits, are especially liable to infection."

After having found some further evidence the Deputy Sanitary Commissioner concludes :—

"In short, all Ram Saran's surroundings seem to have been ultimately attacked."

In reviewing the evidence of the whole provincial epidemic, the Deputy Sanitary Commissioner thinks that it is pretty clear that human agency is the chief cause for the spread of the disease from village to village, and that any means which stops or hinders people from leaving an infected locality will also tend to prevent or retard the spread of the disease. There were also facts to show that, though it may not be a common mode of infection, rats may sometimes carry infection from one village to another. On the other hand, facts indicated that in the spread of plague *within* a village, though human intercourse was an important factor, rats played an equally important part; and that, after a village had been evacuated by its human inhabitants, a continuance of the epidemic among the rats remaining behind might lead to a more widespread infection of houses than existed before the evacuation. In the Punjab in 1897 there were reported 312 cases and 179 deaths, of which 302 and 175 belonged to Jullundur and Hoshiárpur, and the others were scattered imported cases.

Plague in Madras Presidency.

183. A racing party that had visited Poona was affected. A case of plague from amongst them was taken from the train at Guntakal and another at Arkonam. A third case underwent incubation in Madras whilst on the observation list. He died of the disease. In their eagerness for ascertaining the conditions in this—to them new—disease, a *post mortem* was conducted by two medical officers; one had an abrasion on his hand, and was duly affected with symptoms indistinguishable (see above under "Mode of entrance of the Bacillus) from plague; an attendant pricked his hand during the *post mortem*, and died of this disease. This menial absconded from the hospital, but was luckily traced by the health officer. Under the system of observation in force the whole of the persons connected with the outbreak were readily traced and carefully supervised. The man received at Arkonam ultimately recovered. Some cases in this presidency reported as probably plague, turned out on investigation to be instances of anthrax in the human being.

Plague in Gwalior.

184. The outbreak in the village of Khandraoni affords a typical and well-defined instance of the diffusion of the disease by human individuals. Khandraoni is a small village situated in the Gwalior State and distant about twenty miles from Jhansi. The population in July 1896 was 558. For some years past several of the inhabitants of Khandraoni had been in the habit of going to Bombay and taking service there, revisiting their village at intervals; among these were two Brahmins, Bindraban and Khoobi, the former being one of the headmen of the village. These two Brahmins came from Bombay to Khandraoni in January 1897, at a time when the epidemic was virulent in Bombay. They travelled straight from one place to the other and arrived at Khandraoni on the 9th of the month. On leaving Bombay Bindraban was suffering from fever, and Khoobi attended him on the way, bringing him to Jhansi by rail and from there, in a country cart, to Khandraoni, where he died five days after his arrival. Two days after Bindraban's death, Khoobi fell ill and died in three days, and almost a week after his death a native doctor of the village, who attended the two Brahmins, was attacked with fever and died, and at the same time a second native doctor, who came from another place to treat the first doctor, also succumbed to the disease. The plague then gradually spread amongst the inhabitants of the village, and by the 18th March, 59* seizures had occurred, of which 47* had proved fatal.

Plague in Garhwal.

185. The last outbreak in Garhwal, which occurred in the spring of 1897, occasioned particular notice and anxiety, as it was contemporaneous with the worst period of the Bombay plague. The locality was a small village near Okhimath on the main road of pilgrimage from Hardwar to Kedarnath, and some 20 miles distant from the latter place, which was the scene of the 1823 outbreak.

At the commencement of the attack some of the inhabitants, following the usual practice in such cases, left the village, which was very small, remote, and inaccessible, and thus escaped infection. Only four or five families remained, most of the members of which died of the disease. There were 17 deaths in all.

* Now given as 74 cases and 52 deaths.

Plague elsewhere.

186. Most of the districts or places where plague occurred in 1897 have already been mentioned, and the following completes the list, with the exception of the Portuguese possessions of Daman and Goa, in the former of which the outbreak was severe:—

Year.	Cutch.		Hyderabad.		Central Provinces.		Rajputana.		Baluchistan.		Kashmir.		Central India excluding Khandraoni.	
	* Cases.	Deaths.	‡ Cases.	Deaths.	† Cases.	Deaths.	† Cases.	Deaths.	† Cases.	Deaths.	† Cases.	Deaths.	Cases.	Deaths.
1897 . .	6,653	5,709	24	8	16	11	51	44	2	1	1	...	21	11

* Imported and Indigenous.
† Imported only.
‡ Imported and perhaps also indigenous.

The first case reported to have been landed from Bombay at Mandvi, the principal sea-port of Cutch, was on the 3rd of October 1896, but indigenous cases were not reported there till the 9th June 1897. The first place to suffer to any extent from indigenous cases was Rawapur, which was infected from Karachi by a dirzi, who gave the disease to 11 of his relatives, all of whom died. Mandvi is in direct and constant communication with Bombay and Karachi; and most of the other villages of Cutch affected at first were within easy distance from Mandvi and the coast. The disease does not appear to have taken root in every place to which it was imported. The epidemic reached its acme in May, and then declined rapidly; but there was a recrudescence in August and September, and cases continued to occur up till the end of the year. It is said that vegetarians were more affected than meat-eaters.

Conclusions.

187. In its long distance marches plague seems to have spread along the lines of communications—coasting steamers, railways, roads, rivers,—and in this case man, in person or clothes, was the agent of diffusion. Between the houses and streets of a town or village, and even between closely neighbouring villages, the disease was often carried by rats also.

Measures for India (21)

188. At the end of January, when the plague had, in spite of all precautions, taken a firm hold of Bombay, when it had become epidemic in Karachi, and when it had begun to spread to Poona, Ahmedabad, and other places, it became evident that the ordinary provisions of the law were not sufficient to enable the local authorities to enforce all the measures necessary for grappling with the disease where it already existed, and for preventing its spread to other districts, provinces, and countries. Accordingly, the Government of India determined, having regard to the high mortality resulting from the plague, the persistence of the disease in Bombay and Karachi, the apprehension that it might spread and become epidemic in other places, the injury that was resulting to the trade of the places affected and the country at large, that it was necessary to take special powers by legislation. With this object a bill "to provide for the better prevention of the spread of dangerous epidemic disease" was introduced in the Council of the Governor-General on the 28th January and passed into

law as the Epidemic* Diseases Act (III of 1897) on the 4th February. The intention of the Government of India in passing the Act was that regulations for dealing with the epidemic should, subject to the general control of the Governor-General in Council, generally be made by the Local Governments, who, with their greater local knowledge and experience, and with their greater facilities for gauging local opinion and enlisting local sympathy, were in the best position to devise regulations to meet the particular circumstances which had arisen and might arise in the territories under their administration. Therefore, on the day that the Act received the force of law began the issue of the necessary series of notifications † conferring powers on Local Governments and Administrations. The Government of India itself found it necessary to take action under the Epidemic Diseases Act only in four classes of cases; issuing orders referring to the prohibition of the pilgrimage to Mecca, to the prohibition of emigration from India, to the temporary prohibition of the booking of railway fares to certain localities with a view to prevent the assemblage of large religious gatherings, and to the prohibition of the importation of certain articles likely to carry the seeds of infection from the Bombay Presidency to other parts of India.

The preventive measures actually adopted may be divided into the following classes:—

(1) *Measures to suppress the disease in plague centres*:—Arrangements to ascertain the existence of plague cases by compulsory report, registration at burning and burial grounds, house to house visitation, inspection of corpses, and other means; the treatment of plague patients in special hospitals constructed with a view to the segregation of the sick; the disposal of corpses in a manner calculated to prevent their breeding infection; the segregation of persons who had been living with persons suffering from plague; the evacaution of infected buildings and localities, and the accommodation of their evicted inmates in carefully-supervised health camps; the disinfection and cleansing of houses in which cases of plague had occurred; the disinfection of contaminated articles, or their destruction if they were of little value; the exposure of insanitary and infected dwellings to light and air; the demolition of insanitary and infected huts; the general disinfection and cleansing of the locality; the general improvement of drainage; and other sanitary precautions, such as the abatement of overcrowding.

(2) *Measures to prevent isolated cases establishing a fresh focus of infection*:—These were similar to those described above. They consisted mainly in the segregation of the sick, and of those who had been in contact with them; the disposal of the corpses in a safe manner; the disinfection or destruction of contaminated clothing, bedding, and other articles; the disinfection of contaminated conveyances; the evacuation of the dwellings in which cases had occurred, and their disinfection or destruction; the evacuation, if necessary, of the locality; and the adoption of general sanitary precautions.

* Given as an Appendix.

† The Home Department General Notification is given as an Appendix.

(3) *Measures to prevent the spread of infection by persons travelling by land :*—Land quarantine was not imposed; but all persons travelling from infected localities by rail, road, or river, were examined by a medical officer, who was given a wide discretion to retain under observation, in suitable and isolated shelter, all persons considered to be likely to spread infection by reason of the symptoms, their appearance, or the state of their clothes or personal effects, and persons without a fixed abode and who were not likely to be traceable or to give information of the occurrence of plague cases amongst them. This inspection was in general carried out on departure from the infected locality or area, and on the route or at the place of destination.

The whole of India was protected against the Bombay Presidency and Sind by a series of inspection stations on the main lines of railway traffic. Arrangements were also made to keep a watch at their own homes over persons arriving from infected districts. An additional, and very necessary, precaution was the disinfection of the clothing and baggage of travellers from infected areas, which ro m its condition or other reasons was deemed to be dangerous. Rules were also promulgated for the disinfection of railway carriages. Precautions milar to those adopted on the railways were put in force in the case of travellers by road and by river routes.

(4) *Measures to prevent the spread of infection by persons travelling by sea :*—Vessels sailing from ports in the infected areas, and, in the case of vessels sailing for ports out of India, from other principal ports in India, were inspected before departure, and any cases of plague discovered on board were removed. Quarantine was also impressed against the infected ports at other ports in India. The original rules enforced at the ports of arrival were issued under the Quarantine Act (I of 1870) and were similar to those enforced against Hongkong in the year 1894. Revised rules were subsequently issued under the Epidemic Diseases Act (III of 1897), based on the regulations prescribed by the Venice Sanitary Convention of the 19th March 1897. The rules for the medical inspection of vessels before leaving port were also revised after the issue of the Convention.

(5) *Measures to prevent the spread of infection by susceptible articles :*—The importation of rags, used apparel and bedding, waste paper, and used gunny bags, from the Bombay Presidency and Sind to other parts of India was prohibited, both by land and by sea. Precautions were also taken to prevent the spread of infection by grain and other food-stuffs.

Measures in the Bombay Presidency and Sind.

189. A first set of general regulations under the Epidemic Diseases Act was issued by the Government of Bombay on the 20th February. A number of additions were made to the rules in the light of later experience, and the whole series was afterwards consolidated in a notification dated 29th March.

The general course pursued was, as regards preventive measures, to hinder

those coming from an infected area from entering a healthy town or village, by detention at an observation camp till freedom from infection was assured and the person and personal effects disinfected. When the disease was apprehended, or had appeared, in a town, usually a small committee with full powers supervised the whole proceedings. Otherwise in a district the collector managed the business. The town was divided into wards, each with a superintendent in charge, with suitable assistance, which comprised a searching staff, a medical staff, and a cleansing staff. The searchers, under carefully framed rules, visited the houses, and if any sick were found, the medical staff were called in to diagnose the case, which, if considered plague, was removed to hospital, the other inmates of that house being placed in a segregation camp to be disinfected and remain there for 8 or 10 days. The cleansing staff then cleaned and disinfected the infected building. In some instances in large towns, instead of searching daily, the superintendent watched the daily number of deaths, and kept a list of the sick, any suspected case being examined. If the number of deaths mounted up, the ward was searched, and, if it could be done, the people were turned out into camp. As a rule, all the houses were cleaned and opened up either by the staff or the owners, and sanitation strictly attended to. All deaths had to be reported, and, if the cause of death was not clear, a medical inspection was made. In large towns, every now and again, without warning to the people, the whole searching staff was concentrated on a given ward, a cordon having been put round to prevent ingress or egress, and the whole place rapidly and thoroughly searched with a minimum of inconvenience to the people; and this measure was very useful in those cases in which wards had become seriously affected. Another good measure, though it could not always be put in force, was to turn the whole ward out into a camp, whilst the houses were cleaned and opened up to light and air. The evacuation of infected localities, and the lodging of the inhabitants in health camps were special features of the work in Sind, and were adopted elsewhere. In addition, at various points on the railway, inspection stations were organised and travellers examined; and, according to the rules in force, either only those who were sick were detained, or all travellers were detained for a fixed period, disinfection of the person and effects being also carried out.

Measures in the city of Bombay.

190. Until the appointment of General Gatacre's Committee on the 9th March, the remedial and preventive measures were carried out by the municipal authorities of the city. That committee was directed to strive after the discovery of all cases of plague; the treatment of all cases in hospitals; the gradual segregation, as far as possible, of the probably affected—that is, of those living in the same room with, or in close attendance on, persons suffering from plague; but on the understanding that the social, caste, and religious usages of the people should be treated with all consideration. The city was divided by the committee into 10 districts and these again into sub-divisions, to each being assigned an appropriate staff and plant. In addition to the death registration and report rules, the main agency employed for detecting cases of plague was the system of house-to-house visitation. When a suspicious case was found, the medical officer was called on to certify as to whether it was a case of plague or not. If the case was diagnosed as plague, the ambulance was brought to the door of the house, and the stretcher to the room of the sick person, if the width of the doorway or the incline of the doorway staircase permitted of this being done. Special attention was bestowed on the ambulances used to carry

the sick to hospital, with a view to minimise the risk of the transit. A large number of well-equipped hospitals was established and maintained, and efforts were made to overcome the reluctance of the population to the hospital system by the establishment of numerous private hospitals. General Gatacre stated that the moral and practical support which the committee received from the establishment of private hospitals was invaluable, as it quelled at once the misgivings and fears entertained by the people with regard to the hospital system. In the disposal of corpses the matter principally looked to was the condition of the burial-grounds. The actual disposal of the bodies of persons who died of plague was left, as far as possible, to the relatives and friends of the deceased, who performed the last rites according to the custom of their sect, subject only to such sanitary supervision as was essential. One of the standing rules for observance in hospitals was that the body should be wrapped in a sheet soaked in solution of perchloride of mercury before being handed over to the friends of the deceased. It is to be gathered that all persons who occupied the same portion of a tenement or the same house as the sick person were compelled to vacate the room or house to allow of its disinfection, and that they were in general segregated in the neighbourhood of the hospital in which the sufferer was being treated. The disinfection of the house formed the sequel to a visit with positive results. The committee, during disinfection, invariably treated those places where rats had been known to die as plague-infected localities. In addition to the thorough treatment of single houses, large measures of cleansing and sanitary reform were continuously executed. At one time as many as five thousand special workmen were employed on these operations.

From July, in which month began the recrudescence of the plague, the work of the Plague Committee was continued under the presidency of Sir James MacNabb Campbell. The aims set before it were to keep down the death-rate, while preventing panic and trade dislocation, and to lessen the risk of a third epidemic. To lessen the risk of a third plague epidemic, in addition to the removal of the sick, the segregation of the tainted, and the cleansing of the house, special attention was paid to the construction of camps as a relief from overcrowding, to the vacation of infected and unwholesome houses, and to the introduction of an improved provision of light and air. Apart from the cleansing of streets, the flushing of gullies, and the other general preventive measures which were efficiently carried out by the Health Department ; so far as pure plague operations are concerned, the main hope of a low death-rate lay in securing the removal to hospital at the earliest possible stage of the attack. The means adopted by the committee to secure the early removal of the suffering were — information, simple house-searching, and house-searching with cordons. All these were made less effective than they might have been by the action of the people in wilfully concealing cases. "Contacts," that is, those persons who had lived in the same room or house as a patient, or had been in close association with him, were treated on the same lines as plague cases. They were removed with all their belongings to a contact camp, where they passed through a complete process of disinfection, which was applied to their persons, clothes, and moveable property. If plague cases appeared among them, these again were removed to a hospital, and the same measures for elimination and disinfection were again applied to those who had been closely associated with them, and who were therefore designated "Recontacts." This process was again repeated, if necessary, until it was found that plague had actually been

dispelled ; a result which was usually attained within the first week, the majority of plague cases among "contacts" occurring within the first four days. The affected houses were treated by the several agencies of fire, disinfection, ventilation, and exposure to sunlight and air. The disinfectant most used was perchloride of mercury. When many cases of plague occurred in a house, a large *chawl*, or in a group of crowded dwellings, or when the conditions of such dwellings were so insanitary as to invite outbreak of plague, the complete vacation of such dwellings, and the removal of the inhabitants together with their property to a health camp, after the "contacts" had been set apart, was a most effective mode of attack on the epidemic. Since August 1897 one chief object of the Plague Committee had been to provide abundant and healthy accommodation in camps, both for infected arrivals and for the evicted dwellers of tainted and unwholesome buildings in Bombay. Experience in previous epidemics, both in Bombay and in the mofussil, had shown that the most efficient means of keeping the plague in hand was to remove people, as much as possible, from infected areas into camps. For this reason the committee encouraged private camps in the case of the well-to-do, and constructed public camps on available open spaces in and about the city, in which to place the indigent. Besides the contact camps and the health (public and private) camps, there were also detention camps for travellers wishing to enter the city, and observation camps for travellers wishing to leave it.

As showing the activity which characterised the work of the committee in Bombay, it may be mentioned that during the six weeks before the middle of March on an average 2,951 houses were daily searched and 106 plague cases daily discovered and taken to hospital ; that on an average 100 deaths out of a daily recorded plague mortality of 195 took place in hospital ; that 88 "contacts" were daily placed under surveillance in camp, and about 200 (as attendants on their friends) in hospital ; and that 161 infected dwellings were disinfected and 78 vacated, the bulk of them being large buildings.

Measures in Poona.

191. Certain measures had already been carried out ; but by a resolution of the Government of Bombay of the 9th March a committee was appointed with Mr. Rand as chairman. A great difficulty for the committee was the want of labour to carry out the operations. To meet this emergency a carefully devised and systematic plan of operations was elaborated, and carried out with the assistance of volunteers from the British and native troops stationed at Poona and Kirkee. The city was divided into a number of districts to facilitate the systematic prosecution of the measures it was decided to enforce. These measures consisted mainly in the detection of cases and the removal of the sick to plague hospitals ; the removal of persons who were apparently healthy, but had been exposed to plague infection, to segregation camps ; the disinfection of houses and moveable property which had been exposed to infection. Five hospitals and four segregation camps were established, and military parties were constituted for the search for plague cases, the removal of the sick and the possibly infected, and the disinfection of houses. Municipal agency was employed collaterally with the military. Notwithstanding determined and embittered opposition culminating in the assassination of Mr. Rand, the operations were carried out to a successful issue. After the recrudescence of the disease in July measures generally similar were employed.

Measures in Karachi.

192. From the beginning of January the disease increased rapidly, and the question of the evacuation of the infected quarters was then taken up with serious attention; and when Mr. Wingate paid a visit on the 23rd January, he found a health camp had just been occupied by 2,000 Nasarpuris, a sect of well-to-do Hindus. At the end of January the operations in progress were cleansing and disinfecting streets and lanes; vigilant house-to-house inspection; supervision of burial and burning grounds; thorough disinfection of plague-infected houses; destruction of infected clothing; burning of infected huts; preparation of large health camps, and persuasion of the inhabitants to move into them; ventilation of houses by making holes in the roof and walls. There was practically no segregation of the sick and no medical treatment. The disinfecting work had also fallen into arrears. To remedy this last important defect, supervising officers were appointed, and the lost ground was soon regained. Every house was emptied as soon as it became infected, the sick person being left with one or two attendants, and the rest of the occupants moving to camp. The house was then disinfected. By the 11th of February the arrear work in disinfecting houses had been overtaken, and the operations had been carried in advance of the plague by the cleansing of places which had not yet been attacked. The beginning of February was also marked by the first efforts to bring medical aid to the sick, and to segregate them. By the end of February the collector reported that few cases now remained undiscovered, and hence the removal of the healthy was at once universally carried out. On the 20th March His Excellency Lord Sandhurst visited Karachi, and, after inspecting all that had been done, appointed a plague committee, with Brigadier-General T. A. Cooke as President. Details with regard to disinfection of men and their clothing and effects at the camps and to camp-control were carefully elaborated by the committee. On the 25th March the first military search party went out. It was very carefully organised and admirably managed, the civil officers accompanied by medical men taking charge of each party. The general had carefully instructed the men, and from that day forward there was no need for the slightest apprehension, either that the soldiers would not deal tenderly, or that the people would not welcome them: not a complaint was ever preferred. From this time onwards the epidemic steadily decreased, and the operations, which had been gradually and cautiously introduced, were carried to their successful termination.

Measures in the North-Western Provinces and Oudh.

193. Regulations were originally promulgated by the Government of the North-Western Provinces and Oudh on the 12th February 1897, but were revised and issued in their final form on the 26th March. These dealt with the duties of the various official and non-official classes of the community in the matter of prompt reporting of cases; with the action to be taken in municipalities and cantonments, not only on the appearance of plague, but also in anticipation of the same; and with the procedure to be adopted for watching the rail-borne traffic from infected areas. With the second part was issued a memorandum by the Sanitary Commissioner describing the symptoms of the disease, and the procedure to be adopted in villages and small towns. Directions for the disinfection of houses, furniture, etc., in localities in which plague had appeared, were also issued in a separate circular from the Sanitary Commissioner.

194. The first outbreak occurred at Hardwar in April, and was probably due to infection carried by pilgrims from Sind. Special arrangements were made for dealing with the large number of pilgrims expected to attend the fairs, and for preventing if possible, the importation of plague by pilgrims coming from infected areas. In addition to the ordinary examination of railway passengers in accordance with the Epidemic Diseases Act, every passenger was examined at Pathri station close to Hardwar. Those pilgrims found to have come from infected areas were sent on to Hardwar in locked carriages, and were kept under observation on Rori island. Pilgrims coming by road were also inspected; and the sanitary arrangements of the town and of the fair-site were carefully attended to. Provision was also made for the accommodation and segregation of the sick and their relatives and attendants. A reporting agency was appointed, and is believed to have worked well. On the occurrence of the eighth case (in April) it became clear that further measures of a more stringent nature were required. The Lieutenant-Governor decided that the infected area (*i.e.*, the area in which all the cases but one had occurred) should be placed in quarantine and evacuated, the inhabitants either leaving Hardwar altogether after examination by, and with the permission of, the health officer, or removing to a camp of observation established at some distance from the town in charge of a medical officer: the names and addresses of those leaving being forwarded to the authorities of the district of destination; that after evacuation the houses should be thoroughly cleaned and disinfected, and should not be re-occupied till declared safe; that all dead bodies should be examined by a medical officer before burial or cremation (as a further safeguard against concealment of plague); and that all pilgrims to Hardwar from infected places should reside in a special camp under medical observation. Pilgrimages to the fairs in May and June were discouraged. All this time the utmost care was bestowed on the cleanliness and sanitation of the town, and the lime-washing and disinfection of the houses was carried out without intermission. But on the 16th May occurred the first of the ten cases that ended the outbreak. This led to redoubled efforts to secure the detection of cases, and to carry out all possible sanitary improvements and disinfectant measures. Mr. Hankin was recalled from Bombay for the purpose of studying the cases bacteriologically. While special attention was thus paid to Hardwar itself, the neighbouring places were not overlooked. No cases occurred after the 8th of June.

Measures at Hardwar and Kankhal.

In the case of Kankhal the following precautions to prevent the transmission of the disease from infected rats to men were adopted. In the case of any house or godown in which rats were found to be dying in unusual numbers, the house with its contents and the neighbouring drains and premises were thoroughly disinfected in the same manner as if a case of plague had occurred; any grain, sugar, raw food material, found in large quantities in such houses, was exposed to the sun and air for eight hours, being carefully turned over at intervals, and then locked up in a specially disinfected room for ten days before being used for food; when in small quantities, such materials were destroyed; sacks, baskets, and other receptacles were either disinfected or destroyed; the inhabitants of such houses were induced to vacate them for ten days; and a reward of two annas per head was at the same time authorised for every rat living or dead brought in. In the town of Kankhal large quantities of grain are kept; and it was a matter of great importance to prevent these stores from becoming infected through plague-stricken rats. It was settled that such stores

of grain should be thoroughly aired in the sun, and the godown or store-rooms well disinfected, before the grain was again replaced in them. It was considered unnecessary to issue any orders for the destruction of grain. When plague appeared in September, the methods and machinery which proved successful at Hardwar were at once brought into force. An alarming development was the occurrence of the disease among the hordes of monkeys which infest this town. As many of these animals as possible were captured by means of gangs of "*kanjars*", and kept in cages under observation until such time as they were shown to be free from disease, when they were released in the jungles at a considerable distance from the inhabited area. These measures proved successful. By the third week in December the outbreak was practically at an end, and early in February, the town having been completely disinfected, the people were permitted to return to their houses. Meanwhile the disease had appeared in certain villages in the vicinity. A special organisation for keeping an area of some 400 square miles round the original focus of the disease under close observation was at once originated, and each fresh centre of disease was dealt with as discovered. This scheme was of great value.

Measures at Khandraoni.

195. At Hardwar measures of segregation, evacuation, and disinfection were successful in stamping out isolated cases before they had grown into a serious epidemic. At Khandraoni similar measures carried out on a small scale in a very thorough manner were successful in arresting almost immediately an epidemic which had become virulent in the confined area of a small village. A nominal roll of the villagers having been prepared, they were divided into four classes :—those families in good health among whom no cases of fever had appeared since the 9th January ; those families in good health among whom cases of plague or fever had occurred since the 9th of January ; those families in which there were cases convalescent from plague or fever ; and those families that contained members then suffering from plague or fever. By the aid of the military, and with very strict precautions, the village was evacuated, and the four classes were separately segregated in camp, the sick being placed under medical attendance. Very thorough arrangements were made for the discipline and complete isolation of the camps, and for the supply of food, etc. No strangers were allowed to enter the village. At the time of the evacuation of the village, hay and other inflammable materials were placed in the infected houses and those in their immediate vicinity, and they were then set alight and destroyed, care being taken that nothing that could be burnt escaped. The cleaning and disinfection of the village was delayed until the place had been exposed to the disinfecting action of the sun and air for three weeks, with a view to remove any danger of the persons engaged in the operation contracting the disease. Detailed measures were taken to prevent the spread of infection to the neighbouring villages, or its importation into them from Bombay. Complete success attended the operations so carefully devised and carried out, and in a very short time the epidemic was extinct. On the day that Surgeon Lt.-Col. Crofts, I. M. S., who planned and superintended the measures described, arrived, there were eleven persons ill of plague. After that date there were only four admissions to hospital, all of which occurred within ten days of the formation of the segregation camps. The village having been thoroughly cleansed and disinfected, no case of plague having occurred since the 1st April, and no deaths since the 11th, and the patients under treatment having recovered, the segregation camps were broken

up on the 29th of the month. Before this was done, every man, woman, and child in the hospital camp was obliged to bathe, and to exchange the clothes he or she was wearing for new ones, which were supplied free. The hospital huts, patients' clothes, blankets, beds, and all other articles of a combustible nature were burnt; and the only things brought out of the hospital camp were money, jewellery, metal cooking utensils, and the new clothes given to the occupants.

Measures in the Punjab.

196. The Government of the Punjab issued two sets of general regulations on the 8th of March. The first empowered the District Magistrate to adopt the various remedia and precautionary measures which experience had shown to be necessary. The second provided mainly for the immediate report of the existence of cases of plague. With these regulations the Government of the Punjab issued a set of executive instructions prescribing the precautionary measures in detail. On the 19th of June a further set of practical instructions was issued in the form of a circular letter.

Measures at Khatkar Kalan and Khatkar Khurd.

197. On the 21st October, when the disease was officially announced as plague, a cordon was placed around the village, and the necessary measures were started for dealing with the epidemic. During the following week the entire population of the village was turned out into camp, and hutted in suitable grass huts within the village area. The sick were treated in hospital, while their relatives and all who had been near infected persons, were accommodated in a special camp (called "the segregation camp") within easy reach of the hospital. The remaining population was placed in another camp known as "the health camp"; the Muhammadans, Hindus, and lower castes being all in separate divisions, and arranged so that no disputes about mingling of castes should arise. The disease showed signs of abating directly the people were got out into huts, and the last case occurred in this village on the 4th December. The disinfection of the village was begun on the 31st October, and completed by the beginning of December, and may be briefly described as consisting of spraying the rooms with disinfectants, removing the furniture, white-washing the walls, and making large openings in the roofs of all the houses, to allow sunlight and air to penetrate freely; while in all infected houses the entire roof was removed, and the floor dug up to a depth of three inches. On the 6th December the Rawals, who had not had a case for a month among them, began to return to the village. Other castes followed, and all the inhabitants had returned to their houses by the 27th December. The cordon, however, was not removed till the 6th January 1898, in order to allow of 10 days' observation after every one had returned to the village; and the medical officer finally examined every person, and then declared the place free of plague. Some of the cases found in other villages seem to have been imported from Khatkar Kalán before the imposition of the cordon. The cases at Khatkar Khurd were found early, and the whole village was immediately evacuated, and escaped with only ten seizures.

Measures in Garhwal.

198. As soon as information was received by the authorities, the villagers who had not already left were removed and segregated, the houses were burnt and orders were issued that the site, which was water-logged and insanitary, should not be re-occupied. The neighbouring villages were thoroughly cleaned. These careful precautions were successful, and the infection did not spread. The direct pilgrim route through Okhimath was kept closed during the time that the danger of infection was apprehended.

Measures in Cutch.

199. The measures at first ordered, such as inspection of passengers arriving by sea, segregation and treatment, inspection of travellers leaving by land, were very late of being carried out, at least with any thoroughness; and when the European and native workers arrived to carry out operations in the style of Bombay, the epidemic had already reached a great height. An experience similar to that obtained in other parts of India was that plague in the village of Kathda was completely stopped by means of total evacuation; and it was noticed at Kathda, Mandvi, and elsewhere, that people living out in the open in camps were particularly healthy.

Measures elsewhere. (11)

200. The above were not the only places where measures against plague had to be adopted; but as it is quite impossible within the limits of this report to give a full account of the operations carried out in all the affected localities, the method has been followed of giving an account, in necessarily very condensed narrative, of what was actually done in very widely separated parts of India. The reader will obtain a general knowledge of how the plague was combated in India, and of the general ideas underlying the operations. Those who desire more detailed information must consult the official documents referred to. Nothing has been said of the occasional active opposition of the people, and very little of their almost constant passive opposition; because in general they are matters of common knowledge, and because in detail an account of them would occupy too much space. Throughout the paragraphs above and below regarding the progress of the disease and the measures taken against it the *ipsissima verba* of the reports consulted have been freely used without quotation marks, but sentences have been transposed and rearranged wherever the interests of condensation made it convenient.

The subject of preventive inoculation or vaccination has not been touched upon here, as it will be discussed in Section X.

Railway Measures.

201. The importance of inspecting persons travelling by rail from the seat of the plague was recognised from the outset, and arrangements were made to inspect passengers and segregate the sick, as soon as it became clear that plague had taken a hold on Bombay, and showed a tendency to spread to other places. The Government of India was totally opposed to any interference with the ordinary avocations of persons who were not sick or suspicious, and refused also to exempt special classes from the operation of the rules. It decided that the principle governing the rules was that they should apply to all classes, but that detention should be enforced only in the case of such persons as were, in the exercise of the wide discretion which should be entrusted to the responsible officer, considered suspicious. The first arrangements were made by the co-operation of the civil with the railway authorities, who were directed to take action under sections 47 and 71 of the Railways Act (IX of 1890). On the date that the Epidemic Diseases Act (III of 1897) was passed, the Government of India telegraphed to the different Local Governments and Administrations repeating its terms, and in doing this gave special directions with regard to the inspection of railway travellers. It was stated in the telegraphic circular that it was essential that the medical inspection of travellers in trains coming from the direction of infected districts should be complete, and that this could only be effected by the removal of the passengers from the train and their inspection by a medical officer on the platform; also that this duty should ordinarily be performed by a commissioned medical officer. The

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Government suggested a series of inspection stations, which was afterwards altered in communication with the Local Governments. The inspection stations decided on are shown in the map opposite this page. At the principal inspection stations (marked with red on the map) a thorough examination was made of through passengers, or of passengers alighting at important centres of population, as the cases might be, and all suspicious persons were detained. At the subsidiary inspection stations (uncoloured) a less thorough examination was made, but there were arrangements for the detection and removal of sick persons, and for the treatment of plague cases in isolation hospitals. Although for the purpose of devising precautions to protect the rest of India it was necessary, when plague had become epidemic in nearly every district in the Bombay Presidency and Sind, to treat the whole of the province as infected, all places in the presidency were by no means equally infected. Whilst some towns and villages were the scene of virulent epidemics, many others escaped altogether or suffered only slightly. To protect the uninfected against the infected localities, inspections were made of railway travellers at the time of starting from infected places, during the journey, and on arrival at destinations in the presidency, similar to the inspections instituted for the protection of other provinces. By the Bombay rules the inspecting medical officers were empowered to examine all passengers arriving by, or intending to leave by, the train, and to detain persons suffering, or suspected to be suffering, from plague, in places appointed for the purpose. Hospital accommodation was provided for plague patients, and separate accommodation was furnished for suspected persons and for the medical staff. At minor inspection stations the officers appointed for the purpose were empowered to examine all persons alighting or intending to depart, and to detain at the appointed place all persons suffering, or suspected to be suffering, from plague. Surgeon-Major-General Warburton (Officiating Sanitary Commissioner with the Government of India), who made a tour of inspection on the railways at the end of March, recorded the following notes on the inspection stations at Kalyan and Bhusawal. At Kalyan twenty scheduled trains were examined daily. The morning report showed that there were 15 persons in the observation sheds, and 19 cases in the plague sheds. From the 13th February to the 29th March, 301 persons had been detained. Of these 250 were suspects. Approximately 98 of the cases detained proved to be true cases of plague. Of these 63 had died, 16 had been discharged cured, and 19 remained under treatment. Dr. Warburton was present at the inspection of three trains, and found that the inspection was carefully and properly conducted. At Bhusawal four trains, with about 700 passengers, were examined daily. There were no trains to be examined during the night. The inspection of two evening trains at which Dr. Warburton was present were carefully performed. In the segregation camp there was accommodation for twenty plague cases and five suspects. There were two cases under observation, and three cases recovering from plague under treatment. Eleven other cases of plague, making 14 in all, had been detected and segregated, and of these 7 had died and 4 had been discharged on recovery. To carry out these numerous inspections of large bodies of travellers a considerable staff was of course required. At four stations in the North-Western Provinces and Oudh—Jhansi, Saharanpur, Ghaziabad, and Manikpur—European medical officers examined every passenger, the passengers being paraded for the purpose. Later on the inspection station at Manikpur was removed to Sutna. In addition to these stations, alighting passengers were examined at the nine most

important stations by hospital assistants, and the same procedure was carried out at thirty-one less important centres of population by vaccinators. Subsequently the number of these stations was increased, as experience indicated the necessity. Special arrangements existed at Haldwani, Hardwar, Roorkee, and Lhaksar. To ensure that such inspections were really efficiently carried out, three travelling inspectors were appointed, who moved constantly all over the railway system of the provinces, and who submitted weekly reports to the Sanitary Commissioner. Passengers from infected areas were required to give their addresses to the special police staff at the stations, and information was then forwarded to the magistrate of the district to which the traveller was proceeding. Similar systems of surveillance of passengers were adopted in other provinces also. At Khana Junction in Bengal the observation encampment was divided into three portions—the plague hospital, the contact camp, and the suspect camp; and all the arrangements for detection and segregation were very thorough. Rules for the inspection of railway traffic were also issued in the Punjab, Madras, the Central Provinces, Hyderabad, Mysore, Rajputana, Central India, and Baluchistan. Where circumstances favoured such a course, passengers sometimes endeavoured to evade inspection, and various measures were adopted by the local governments to prevent their efforts from succeeding. For example, the Bengal Regulations of November 1897 contain the following rule:—"In the event of a traveller from an infected area alighting at an intermediate station with the object of obtaining a fresh ticket, so as to conceal the fact that he comes from an infected area, the railway police will take down his name and the number of the fresh ticket issued, and will send information down the line, so that he may, on alighting, be placed under observation." At a number of the principal inspection stations, both within and without the Bombay Presidency, special arrangements were made for the disinfection or destruction of all suspicious baggage. The following rule promulgated by the Government of the North-Western Provinces and Oudh is similar to those enforced in other provinces:—"If necessary, the medical officer shall himself arrange for the disinfection or destruction of clothes, etc. In cases where it is considered necessary that the clothes or bedding, etc., of a traveller shall be burnt, the medical officer may, if the person is poor, or for other sufficient reason, arrange for providing other articles in their place at the expense of government." On the 21st of April the Government of India issued a set of instructions for the disinfection of railway carriages, to take effect over the lines of all railway administrations. The instructions provided for two classes of cases: the disinfection of carriages in which cases of plague had been detected, and the disinfection of carriages coming from the infected area though not containing cases of plague. To guard against the dangers of pilgrimages, measures such as those already described under the head of Hardwar, or total prohibition, were had recourse to. The Government of India issued several notifications under the Epidemic Diseases Act prohibiting the sale within the Bombay Presidency of tickets to travel by railway to the scene of different airs held in various parts of India to pilgrims and other persons intending, or believed to be intending, to go on pilgrimage to those fairs. A number of similar orders were issued in the Bombay Presidency.

Road, River, and Frontier Measures.

202. Precautions were also adopted to prevent the spread of the plague by other means of communication. Some examples have already been given, as under the head of Hardwar. Observation posts were established, and authority was

given to the plague officials to inspect and to detain. It was also sought to obtain the co-operation of villagers, and simple instructions were issued to them for the protection by themselves of their villages. Every precaution was taken to prevent the plague infection from crossing the frontier, and thence invading Baluchistan, Afghanistan, Persia, or Russia.

Maritime Measures.

203. The rules already issued by Local Governments under the Quarantine Act (I of 1870) remained in force after the passing of the Epidemic Diseases Act, and were in some cases extended and modified. But first the Government of Bombay and then the Government of Madras issued fresh quarantine rules under the Epidemic Diseases Act, and the final rules framed in accordance with the Venice Sanitary Convention were all issued under that Act. On the 6th and 10th February respectively the Government of Bombay issued rules under the Epidemic Diseases Act for the inspection of vessels sailing from the ports of Bombay and Karachi; which practically came to this, that no vessel was permitted to depart until everyone on board had been examined, and any case suspected to be plague had been removed.

The International Conference assembled at Venice on the 16th February, and the Convention was signed on the 19th March. In a circular issued by the Government of India on the 1st of June the maritime local governments were directed to revise the quarantine rules in accordance with the Venice Convention, and this they did by degrees at different dates. In the port of Bombay the total number of vessels of all kinds inspected was 72,808 against 570 in 1896, and the total number of persons inspected was 1,313,117 against 112,278. In all 169 cases of plague were detected, 79 in incoming vessels, 71 in outgoing vessels, and 19 in vessels lying in harbour. During the earlier part of the epidemic and up till the 6th February 1897, only vessels and persons bound for European and other quarantine ports were inspected. As an exodus of the plague-stricken population of the city had set in, government decided to have an examination of every vessel and native craft, as well as of every crew and passenger, which left Bombay by sea for anywhere. These wholesale inspections commenced on the 6th February. The organisation for the medical inspection of all vessels and persons leaving Bombay by sea has been described in a special report by Surgeon-Lieutenant-Colonel MacCartie, published as an appendix to the "Account of Plague Administration in the Bombay Presidency from September 1896 till May 1897." The object aimed at being the prevention of the spread of plague by sea to other Indian ports, to ports outside India, and above all to Europe, with its incalculable effects on Indian commerce, no measures were spared to obtain that end, and the most characteristic feature of the inspection became its extreme strictness and searching nature. Nor was the examination confined to the persons sailing on a vessel. The vessel itself was overhauled, and a high sanitary condition insisted on. This included the opening and thorough cleansing of lascars' boxes, which were often found to contain filthy clothes and rubbish, "quite capable of supporting the plague microbes in comfort and affluence." "In fact, it would be impossible, humanly speaking, to devise a more stringent or exhaustive examination for the prevention of the export of plague." All ship-commanders were, in addition, advised as to periodical inspections of their crew during the voyage, and of the advantage of frequent exposure to sun and wind of lascars' clothes and kit; whilst printed instructions were sent to shipping agents for issue to commanders of vessels without medical officers, describing the symptoms of plague, and the treatment to be adopted should the disease break out on their ships. It speaks well for the measures adopted by

the Bombay Government that throughout the year 1897 only one ocean-going steamer was known to have plague on board after leaving Bombay. It is impossible to tell whether cases may not have got away across the harbour or down the Indian coast by sailing craft and small coasting steamers, notwithstanding the strict system of inspection for passengers by such vessels; but, at any rate, no such cases seem to have been reported. In all cases where plague developed among people who had been rejected from a ship, a telegram was sent to the next port of arrival with a warning that a case of plague had been removed from the vessel. During the year 3,322 persons were prevented from sailing in vessels. All persons having any suspicious signs or symptoms were rejected. Inspection of incoming vessels and passengers began in April, and 39,199 persons were segregated for periods varying from 2 to 10 days.

Emigration Measures.

204. On the 6th March 1897 a notification was issued by the Government of India prohibiting intending emigrants from the infected areas from leaving India.

The orders issued and measures taken with regard to the pilgrimage to Mecca will be mentioned in Section X.

Measures anent susceptible articles.

205. The transmission as merchandise of rags and other articles likely to have come into contact with persons suffering from plague was forbidden. The exportation of grain was not forbidden, but very thorough precautions were taken. Special measures were adopted to obtain immediate information of plague cases occurring in grain godowns, or in the same building as grain godowns; and the grain was either, exceptionally, destroyed, or taken out and thoroughly exposed to the sun and the air, while the godown was carefully disinfected.

Conclusions.

206. The maritime measures adopted were very successful in preventing the transportation of the disease to Europe. The railway and maritime measures affecting India internally had a considerable, but a much smaller, degree of success; because they could be, and were, to a certain extent evaded, because it was impossible for roads to be as well watched as railways, and because the disease had already begun to spread before appropriate measures could be inaugurated. Where, as in the case of Hardwar, Khandraoni, Khatkar Kalan, Khatkar Khurd, Kathda, etc., a small town or village had to be dealt with, and information of the presence of the disease was early received, the measures adopted —complete evacuation of the village, thorough isolation of the sick and suspected, careful treatment of the sick—were eminently successful. In the case of the native army also (see Section III, paragraph 58), where the affected people were under perfect discipline and the houses, etc., were the property of Government, similar measures were equally successful. But in large towns, such as Bombay, it was otherwise. Such a town could not be completely evacuated, many cases were neither reported nor detected, the persons who had come in contact with these cases were not isolated, and very many of the sick were not treated by a medical man. In small villages the people were more in the hands of the authorities, were more simple and docile, could have things explained to them and were able to see for themselves that no harm was being done to them, and that the result was quickly good. But in the large towns, for opposite reasons, the stringent plague measures caused vague feelings of panic and strong feelings of resentment, which led to concealment of cases and refusal of medical treatment in the town itself, and to flight of sick and infected or infection-carrying people to other localities. It has even been supposed that rats, carrying infection with them, were frightened away by the vigorous use of disinfectants and other disturbing agents. All the same, Hankin produces on page 726 of his article

in Volume XII of the *Annales de l' Institut Pasteur* evidence to show that the strenuous exertions of the Bombay Plague Committee may have been productive of good as far as the city itself was concerned. One of the great lessons to be learned from Indian experience is that simple isolation of the sick and of those who have been in contact with them is of no ultimate use. Nothing short of total evacuation is certainly effectual, total evacuation involving life in fresh open air at a considerable distance from the infected locality.

Fevers.

Fevers in India.

207. The total number of deaths registered under the heading "fevers" rose from 4,578,944 in 1896 to 5,026,725 in 1897, and the ratio per 1,000 of population from 21·05 to 23·12. The months of greatest mortality were November, October, and December. Each of the first six months of 1897 had fewer, and each of the last six months more, deaths than the corresponding month of 1896. The increase over the previous year was specially marked in November and October. The drought which had produced famine had reduced fever, but, when the copious and well-distributed monsoon rain of 1897 arrived, fever increased.

The greatest increases were in Coorg, the Central Provinces, Assam, and the North-Western Provinces and Oudh; and the only decrease was in Bengal. The highest district maximum death-rate was 65 in the Central Provinces, and the lowest 15 in Burma. Why in the North-Western Provinces and Oudh the urban death-rate was in 1897, and usually is, higher than the rural, has not been explained. The same relation in Bombay in 1897, is, perhaps, due to the presence of plague in some towns.

The following table may be consulted not only for this, but also for the succeeding paragraphs dealing with fevers :—

Statement showing the deaths from FEVERS *registered in the different Provinces by months during the year 1897.*

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total, 1897.	Total, 1896.	Ratio of deaths per 1,000 of population 1897.	Ratio of deaths per 1,000 of population 1896.
Bengal . .	125,682	108,823	146,405	125,033	123,822	109,412	115,587	162,693	146,861	147,384	203,618	163,812	1,679,132	1,760,225	23·62	24·7,
Assam . .	7,182	6,506	7,245	8,310	11,498	16,037	18,348	16,279	14,209	14,136	13,015	11,542	144,307	101,347*	23·74	20·1
North-Western Provinces and Oudh .	111,004	94,485	102,592	96,640	86,699	79,354	92,361	119,213	146,351	203,855	184,069	147,093	1,463,716	1,205,964	31·21	25·71
Punjab . .	25,131	19,289	21,360	21,347	25,724	25,657	22,857	23,919	37,231	65,191	76,382	58,738	422,826	393,535	20·57	19·15
Central Provinces . .	21,464	18,417	19,865	19,356	24,245	31,308	35,475	50,655	53,522	50,367	38,325	26,336	389,335	280,760	40·98	29·55
Berar . .	3,005	2,648	2,989	3,632	4,752	4,557	5,337	8,740	10,461	9,153	5,785	4,552	65,611	61,931	23·00	21·78
Lower Burma	4,489	3,531	3,294	3,457	3,381	3,353	4,912	4,940	4,605	4,566	4,825	6,399	51,752	51,521	11·46	11·41
Madras Presidency .	22,389	17,868	18,883	18,493	21,137	23,036	26,962	26,771	27,323	30,368	27,910	31,152	292,292	260,769	8·97	7·97
Bombay ,,	37,462	36,087	37,363	34,647	31,029	31,018	36,752	44,547	42,014	43,449	43,625	34,603	452,596	412,229	24·05	21·98
Ajmere-Merwara . .	730	589	644	702	816	690	505	925	1,328	1,598	1,275	1,081	10,883	9,403	20·07	17·34
Coorg . .	397	330	421	442	664	832	996	857	545	611	552	535	7,182	3,552	41·50	20·53
Mysore . .	3,444	2,651	2,919	2,958	2,811	3,108	4,003	3,795	3,755	4,371	6,175	7,103	47,093	37,708	9·72	7·79
Total .	362,379	311,224	363,980	335,017	336,578	328,362	354,095	463,334	488,205	575,049	605,556	492,946	5,026,725	4,578,944	23·12	21·05

* Includes 15,637 deaths from *Kala Azar*.

Sale of Quinine at Post Offices.

208 In Bengal there was a decrease of 3,962 parcels of quinine sold, each parcel containing 102 five-grain pice packets. The Sanitary Commissioner considers this to be probably due to the diminished prevalence of fever; and that the sale of the drug on an extensive scale is only a question of time, the gradual increase in the number of post offices in the interior of the province, as well as the increasing knowledge on the part of the people that this cheap and efficacious remedy can be had within easy reach of their homes, being certain gradually to have the effect of increasing the distribution of quinine among the people in this way.

In Assam, excluding 100 packages supplied to the Manipur State, and 319 distributed to vaccinators, 2,181 packages were sold against 1,059 in 1896. The increase in the amount sold through post offices in the Surma Valley, in which malarial fevers were very prevalent, was considerable. Packets of quinine were advertised for sale at all post offices in the Surma and Brahmaputra Valleys, and in the Khasi and Jaintia Hills during the year; and in the beginning of the vaccinating season two packets of quinine were given to each district vaccinator, as a permanent advance, with instructions to sell as many packets as possible in the villages visited by them in the ordinary course of their duties. In the Khasi and Jaintia Hills packages were also supplied to the missionaries, who take much interest in the work.

The sale of quinine was extended to all districts of the North-Western Provinces and Oudh. But the working of the scheme in 1897 was disturbed by the necessity of largely distributing this remedy *gratis* during the severe malarial fever which prevailed in the autumn. This liberal and gratuitous distribution of quinine to the poorer classes was very useful in mitigating the effects of the widespread malaria.

No statistics of the sale of quinine in the Punjab are given, but it is mentioned that the drug was freely and gratuitously distributed. Lala Mul Chand, Officiating Civil Surgeon of Karnal, says:—

> Personally I see there is no necessity for free distribution any longer, as the people have now become fully alive to the benefits of the prophylactic; and its purchase through the post office and other agencies will be enhanced, if the gratis distribution be put a stop to. Of course the gratis distribution through the district dispensaries should be continued as heretofore.

The Central Provinces, Berar, and Madras, do not appear to have furnished particulars of quinine sales.

In Coorg, during the year, 807 packets were sold at the various post offices, a very encouraging increase. The sale of quinine at the rural post offices is very much appreciated by the public; and the Sanitary Commissioner regrets that it was found necessary by the Government of India to increase the price of the powders at present, as he fears it may deter the poorer classes from buying.

No sale-statistics come from Bombay or Burma; but the Sanitary Commissioner of the latter province says that the Government scheme is in its infancy, and has not yet found general favour with the people.

Fevers in Bengal.

209. The number of deaths attributed to fevers in Bengal in 1897 was 1,679,132, as compared with 1,760,225 in 1896; and the death-rate was 23·62 against 24·77 for the preceding year, 23·32 for the five-year period, and 19·81 for the decennium 1887—96. The smaller mortality as compared with the previous year was

chiefly due to the exceptional healthiness of the earlier months, January to April, the result, no doubt, of the early cessation of the rains during the previous season. The excessive mortality from fevers in the Hazaribagh district was attributed to the debilitated condition of the people from famine; and the Civil Surgeon of Faridpur calls attention to a factor in the production or encouragement of malaria that is every year gaining ground, the steeping of jute in every available pool of stagnant water. The heaviest mortality took place in the months of November, December, and August, and the lightest in February, June, and May. The first seven months and the last month of 1897 had decidedly lower, the other months decidedly higher, mortalities than the corresponding months of 1896. Two districts, Pabna and Hazaribagh, had ratios over 35 per mille; four, Rangpur, Dinajpur, Jalpaiguri, and Chittagong, ratios over 30; fourteen, ratios not less than 25; eleven, ratios not less than 20; ten, ratios not less than 15; four, ratios not less than 10; one, a ratio not less than 5. The rural mortality was 23·88, the urban, as usual lower, 18·60. The extremes of town mortalities were 45·12 at Bhabua, followed by four ratios over 35, and 5·07 at Jhalukati.

The 154 admissions, against 211, of the European seamen of the port of Celcutta were made up by 7 enteric fever, 91 malarial fever, and 56 simple fever. The only death was from enteric fever. There were 47 deaths, all out of hospital except 3, among the native floating population, yielding a ratio of 1·83 per mille, against 1·20 in the preceding year.

Fevers in Assam.

210. Under the heading "fevers," in which the reporting agents are apt to include all diseases wherein rise of temperature is a prominent symptom, there were, including *kala azar*, 144,307 deaths registered in Assam in 1897; and the death-rate, which was 20·18 per mille in 1896, rose in 1897 to 28·74, or 10·69 per thousand in excess of the mean of the previous five years. Most deaths occurred in July, August, and June, and fewest in February, January, and March. The first three months of the year showed a decrease as compared with the corresponding months of 1896, all the other months an increase, which in the case of July, August, and September, amounted to a doubling. Very extensive flooding, says the Sanitary Commissioner, occurred in the Goalpara and Kamrup districts, owing to the raising of the river beds by the earthquake, and it was feared that these excessive floods would increase the mortality from malarial fevers. On the whole, however, there was no increase in those two districts, and the greatest increase in the fever mortality occurred in the Cachar district, in which the disturbances produced by the earthquake were comparatively small. The highest district death-rates were those of Nowgong (41·77), where *kala azar* is very prevalent, and of Cachar (35·30), from which none was returned. Besides these, three districts had ratios not lower than 30; one a ratio not lower than 20, and three ratios not lower than 10. The rural death-rate was 28·82, or excluding the hill district, 26·18. The mean urban mortality was 24·86; and the extremes were 65·69 at Karimganj and 2·29 at Jowai.

Kala azar.*

211. Regarding the distribution of this fatal form of fever the provincial Sanitary Commissioner writes:—

During the year 18,612 *kala azar* deaths were reported, as against 15,637 in 1896. The mortality from this cause in the Goalpara district continues to decrease; but in the

* See also Section X, paragraph 280.

other three districts in which the disease is prevalent, Kamrup, Darrang, and Nowgong the recorded mortality from *kala azar* was considerably greater than it was in the previous year. In Kamrup the increase was inconsiderable, but in Darrang and Nowgong 1,126 and 1,424 more *kala azar* deaths, respectively, were reported than in 1896. In the Nowgong district 12,012 deaths from *kala azar* and 2,364 from "other fevers" were reported as against 10,588 deaths from *kala azar* and 1,905 from "other fevers" in 1896. As noted in last year's report, the number of deaths registered under "other fevers" in the Nowgong district is so much smaller than the number recorded under this heading before *kala azar* made its appearance, that, in all probability, many deaths which in former years would have been registered under ordinary fevers were returned in 1897 as *kala azar*. . . . . The greatest increase in the mortality from *kala azar*, as compared with 1896, in the Kamrup district occurred in the Barpeta town and rural circles and in the Nalbari rural circle. In the Darrang district more deaths were registered from this cause in all registration circles than in the previous year, and the disease appears to have gained a footing in every portion of the district. The *kala azar* death-rate was smaller than it was in 1896 in the Samaguri registration circle, but in the rest of the Nowgong district the mortality registered from this cause was greater than it was in the previous year. The months of greatest prevalence of *kala azar* were June, May, and October, and the registered mortality was smallest in February and January. In 1896 the months of maximum prevalence of the disease were May, June, and April, and the months of minimum prevalence were February and January. In the circles in which *kala azar* was prevalent the greatest number of deaths was registered under "other fevers" in May, June, and April, and the smallest number in September and February. In 1896 the months of maximum mortality from "other fevers" were June, May, and July, and the mortality was smallest in April, September, and October.

Fevers in the North-Western Provinces and Oudh.

212. The number of deaths ascribed to fevers in 1897 was 1,463,716, against 1,205,964 in 1896. The death-rate was 31·21 as opposed to 25·71 in the previous year, and to the mean ratio of 24·93 for the quinquennial period antecedent to the year under review. The heaviest mortalities occurred in October, November, and December, and the lightest in June, May, and July. The mortality in each of the first six months was lower, that in each of the last six months, higher, than the mortality of the corresponding months of 1896. I am inclined, says the Sanitary Commissioner, to consider that the decline in the spring was due to more food being then available, and to attribute the premature incidence of mortality in July to the fact that persons in a weakened condition succumbed to even the weaker form of the malarial poison likely to be generated so early in the rains. There is no doubt but that later in the year malarial fever was of a severe type. . . . . It is unsafe to definitely say more than that malarial fever this year was of a severe type, and that the people generally were, from a reduced condition of health, less able than usual to withstand it. Four of the districts, Bareilly, Hamirpur, Jalaun, and Agra had death ratios over 45 per mille; three, Pilibhit, Hardoi, and Lucknow, ratios over 40; seven, ratios not under 35; sixteen, ratios not under 30; nine, ratios not under 25; six, ratios not under 20; and three, ratios not under 15. The rural mortality was 30·95. On the other hand, the urban death-rate was 34·61, higher than the rural, a usual provincial peculiarity never yet accounted for in the local report. The extreme town mortalities were 88·17 at Pilibhit and 14·83 at Nawabganj.

Fevers in the Punjab.

213. There was an increase in the fever mortality in the Punjab, the number of deaths having risen from 393,535 in 1896 to 422,826, and the ratio per thousand of population from 19·15 to 20·57. The ratio for the preceding quinquennium was 23·41. The months of greatest mortality were October, November, and December; and

those of lowest mortality, February, April, and March. The first eight months had diminished mortality as compared with the corresponding months of 1896; the last four months, increased mortality, the increase amounting to doubling in October, November, and December. The highest district death-rates were those of Dera Ismail Khan (40·49) and Muzaffargarh (37·99). Besides these, three districts had ratios not less than 30 per mille, four not less than 25, six not less than 20, eight not less than 15, seven not less than 10, and one a ratio not less than 5. The rural death-rate was 20·80; the urban, as usual lower than the rural, 18·43; and the urban extremes, 72·61 at Khairpur, and 5·35 at Abbottabad.

Fevers in the Central Provinces.

214. In the Central Provinces the deaths from fevers numbered 389,335 or 108,575 more than in 1896; and the mortality ratio per thousand of population was 40·98 against 29·55 for 1896 and 23·13 for the quinquennium. The months of greatest mortality were September, August, and October, and those of least mortality, February, April, and March. Every month of the year, except February, March, and April, had more deaths than the corresponding month of 1896, about double in the case of June and July. The term "fevers," as here recorded, says the Sanitary Commissioner, is very indefinite as regards the cause of death; and much of the general mortality from a great variety of causes is included under this head. In fact, owing to the ignorance of the reporting agency, the term is frequently used to indicate the cause of death generally, and may be, and is, applied to diseases with no relation to, or connected with, specific or malarial fevers. While the term has general application as to the cause of death, the existence of a very fatal type of malarial fever in the autumn of the year in certain areas was undoubted. In some districts the mortality from actual intermittent fever was great, and in others slight . . . . There was no evidence to indicate that, and civil surgeons were instructed to be carefully observant whether the fever prevailing in the Central Provinces was of a contagious, relapsing or typhous type.

The highest district ratios were those of Bilaspur (66·34), Balaghat (61·37), and Saugor (60·77). Besides these, one district had a ratio not less than 50 per mille, three districts ratios not less than 45, three not less than 40, two not less than 35, two not less than 30, four not less than 25, one not less than 20, and one not less than 5. The rural mortality was 42·08, as usual much higher than the urban, which was 29·16. The urban extremes were 136·91 at Mungeli, a town of 4,755 inhabitants in the Bilaspur district, and 7·48 at Sambalpur. Four other towns, out of the 72, had ratios over 60 per mille.

Fevers in Berar.

215. The number of deaths from fevers in Berar rose to 65,611 in 1897 from 61,931 in 1896. The ratio per thousand of population was 23·00 against 21·78 in 1896, and against 20·0 for the quinquennium. The heaviest mortality occurred in the months of September, October and August, and the lightest in the months of February, March, and January. The first five months of the year had fewer deaths than the corresponding months of 1896, only about half as many in the case of the first four months; while the other months had more deaths, the increase in September amounting to doubling. The feeble health and depraved condition of body of the starving poor, says the Sanitary Commissioner, rendered them peculiarly liable to succumb to any prevailing disease and to rapidly become

affected by those malarial influences which usually follow in the train of the south-west monsoon. The experience of the famine year 1878 was the same. The highest district death-rates were those of Wun (30·6) and Amraoti (25·5). Two other districts had ratios over 20 per mille; and two, ratios over 15. The rural death-rate was 23·1, higher than the urban, which was 22·4. The extreme town mortalities were 54·1 at Wadegaon, and 4·7 at Karajgaon.

Fevers in Madras.

216. The number of deaths recorded in Madras as due to fevers was 292,292, or 31,523 more than in the previous year; while the ratio per mille of population was 8·97 against 7·97 in 1896, and against 8·1 for the quinquennium. The months of greatest mortality were December, October, and November, and the months of least mortality, February, April, and March. Each of the first five months had fewer, each of the remaining seven months more, deaths than the corresponding month of 1896. The comparative freedom in the early part of the year, says the Sanitary Commissioner, must be ascribed to the diminished soil moisture proving inimical to the propagation of the malarial germ, in consequence of the failure of the north-east monsoon of the previous year: this was followed, on access of moisture with the south-west monsoon, in the presence of a population rendered susceptible to malaria owing to diminished food-supply, by a mortality greater than normal under this head.

The highest district death-rate was that of Vizagapatam (23·8); and four districts had ratios not under 15 per mille; four, ratios not under 10; nine, ratios not under 5; and four, ratios under 5. The rural mortality was 9·0, the urban, as usual less, 8·0. The extreme town ratios were 29·7 at Kampli, and 0·1 at Rajahpalaiyam; while the town of Kalahasti, with a population of 11,715, appears to have returned no fever mortality. In the case of Kurnool town, where the ratio increased from 13·5 in 1896 to 21·7 in 1897, the Sanitary Commissioner is of opinion that the probability is that the disturbance of the soil during the excavations for the water works throughout the town had much to do with the result.

Fevers in Coorg.

217. In Coorg there were 7,182 deaths ascribed to fevers, an increase of 3,630; and the ratio per mille of population was 41·50 against the 20·53 of 1896 and the 20·75 of the quinquennium. The fever mortality ratio was nearly 83 per cent. of the death-rate from all causes. The rural mortality was 42·59, and the urban, as usual lower, 29·46. The highest town mortality was 39·13 at Virajendrapet, and the lowest 21·75 at Mercara. The months of maximum mortality were July, August, and June, and the months of minimum mortality, February, January, and March. Each month of the year had more deaths than the corresponding month of 1896, the increase in each month from April to November, inclusive, amounting to doubling or more than doubling.

Fevers in Bombay.

218. The total of deaths from fevers registered in Bombay was 452,596, or 40,367 more than in 1896; and is the highest recorded in, at least, thirteen years. The ratio per thousand of population was 24·05 against the 21·90 of 1896 and the 21·56 of the quinquennium. The increase was, at least partly, due to the prevalence of plague. The heaviest mortality characterised the months of August, November, and October, and the lightest June, May, and December. Each of the first five months of the year had fewer, and each of the remaining months more, deaths than the corresponding month of 1896. Although famine was present,

yet owing to the scanty rainfall in the latter part of the monsoon of 1896, the deaths from fever would, in all districts, except the southern and western registration districts, have been, but for plague, about equal to the numbers reported in 1896.

The highest district death-rate was that of the city of Bombay (33·40); three other districts had ratios over 30 per mille; seven, ratios not less than 25; five, ratios not less than 20; seven, ratios not less than 15; and one, a ratio not less than 10. The rural mortality was 23·24, the urban 29·86. The unusual fact that the urban mortality was higher than the rural is probably due to the presence of plague in some towns. The town extremes were 74·88 at Kirkee and 5·67 at Deolali Cantonment.

Fevers in Lower Burma.

219. The number of deaths registered in Lower Burma under the heading of fevers in 1897 was 51,752, as compared with 51,521 in the previous year; and the death-rate was 11·46, against the 11·41 of 1896 and the 10·75 of the quinquennium. The months of greatest mortality were December, August, and July, and those of least mortality, March, June and May. The months of January, July, October, November, and December had more, the other months fewer, deaths than the corresponding months of 1896. That the mortality of the second half of the year is greater than that of the first is no doubt due, says the Sanitary Commissioner, to the rise of the ground water which takes place during the rains and continues for some time after they have ceased. The highest district ratio was that of Sandoway (19·10); two other districts had ratios not under 15 per mille; eight, ratios not under 10; and seven, ratios not under 5. The rural death-rate was 12·05, and the urban, as usual less, 7·53. The Sanitary Commissioner considers that the small ratio of urban mortality is to be explained by the fact that the drainage and sanitary requirements of the towns are better attended to than is the case in the rural areas, and by the diagnosis being to some extent more trustworthy. The extreme urban ratios were 17·48 at Shwegyin and 2·25 at Shwedaung.

Dysentery and Diarrhœa.

Dysentery and Diarrhœa in India in 1897.

220. The number of deaths attributed to dysentery and diarrhœa throughout the registration areas of India during 1897 was 403,833, an increase of 163,644; and the ratio per thousand of population was 1·86 against 1·10 in the previous year. The months of greatest mortality were August, September, and October, and those of least mortality February, January, and March. Every month of the year had more deaths than the corresponding month of 1896; double in September and October.

The highest provincial death-rates were those of Berar and of the Central Provinces, and the lowest that of Bengal. Every province showed an increase of ratio, the increases of the Central Provinces, Berar, and Bombay being greatest. The highest maximum district death-rates were in the Central Provinces and Berar, and the lowest maximum district death-rate in the Punjab. The explanations given for the increase of bowel affections are, generally, that abundant rain after drought favoured the active causes, while the lowering of bodily strength by famine produced predisposition. In all provinces the urban mortality exceeded the rural.

The following statement illustrates not only what has just been written, but

also the succeeding paragraphs upon bowel complaints in the different provinces:—

Statement showing the deaths from DYSENTERY AND DIARRHŒA *registered in the different Provinces by months during the year 1897.*

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.		RATIO OF DEATHS PER 1,000 OF POPULATION.	
													1897.	1896.	1897.	1896.
Bengal . .	3,085	2,870	3,921	3,880	4,091	3,749	4,606	7,451	6,387	4,362	5,133	4,287	53,822	47,935	0·75	0·67
Assam . .	1,239	1,157	1,341	1,446	2,064	2,012	2,273	2,249	2,264	2,425	2,528	2,138	23,136	16,004	4·61	3·19
North-Western Provinces and Oudh.	4,012	4,003	6,691	5,653	4,196	4,106	4,614	6,204	5,968	5,642	4,388	3,345	58,822	40,858	1·25	0·87
Punjab . .	860	560	564	862	1,100	953	930	1,460	1,973	2,514	2,181	1,894	15,851	13,885	0·77	0·68
Central Provinces.	3,291	4,621	4,625	4,138	5,651	7,169	8,638	12,351	12,676	9,411	5,393	3,128	81,092	29,882	8·53	3·15
Berar . .	690	573	667	1,071	1,436	1,398	2,657	6,282	6,755	4,569	2,117	1,334	29,549	17,722	10·36	6·23
Lower Burma .	484	615	620	723	745	806	1,542	1,094	706	485	445	528	8,793	7,777	1·95	1·72
Madras Presidency.	2,834	2,080	1,997	1,911	2,126	2,710	4,494	5,000	4,772	4,317	3,416	3,149	38,716	24,802	1·19	0·76
Bombay „ .	2,943	2,859	3,814	4,910	5,845	6,280	10,637	13,507	12,002	10,225	7,171	5,773	85,966	36,046	4·57	1·92
Ajmere-Merwara.	28	18	15	22	23	19	20	68	79	50	44	53	439	379	0·81	0·70
Coorg . .	25	15	20	30	65	81	80	73	67	40	22	20	538	323	3·11	1·87
Mysore . .	354	279	375	350	466	581	817	899	887	736	661	704	7,109	4,575	1·47	0·94
TOTAL .	19,845	19,650	24,650	24,996	27,808	29,864	41,218	56,638	54,536	44,776	33,499	26,353	403,833	240,189	1·86	1·10

Dysentery and Diarrhœa in Bengal.

221. The number of deaths registered in Bengal in 1897 was 53,822, or 5,887 more than in the preceding year; and the ratio per thousand of population was 0·75, against the 0·67 of 1896 and the 0·69 of the quinquennium. The months of greatest mortality were August, September, and November, and those of least mortality, February, January, and June. Each of the first six months had fewer, and each of the last six more, deaths than the corresponding month of 1896. The increase was most marked in August and September. The returns are not regarded as quite correct, and it is believed that many cases are returned as "fevers." The somewhat larger mortality of the year, says the Sanitary Commissioner, was almost solely due to the fact that on account of the prevailing scarcity the poorer classes of the people were obliged to live on herbs, roots, leaves of trees, and other unsuitable and unwholesome food. This, as a matter of course, materially lowered their health status, and eventually brought on this disease in a serious form. Polluted water-supply also added to the virulence of the disease in many places. The highest district ratios were those of Lohardaga (4·96), Calcutta (4·72), and Puri (4·08). Besides those, two districts had ratios not less than 3 per mille; three, ratios not less than 2; four, ratios not less than 1; eleven, ratios not less than 0·5; twenty-one, ratios not less than 0·05; and two, ratios less than 0·05. The rural death-rate was 0·61, the urban, 3·50. That the urban mortality is usually the greater seems to the Sanitary Commissioner to be chiefly due to overcrowding and its attendant evils, which are more intense in towns than in the open country, and also to the greater probability of the disease being correctly

diagnosed and reported in towns. The urban extreme ratios were 13·74 at Kotrung and 0·08 at Pirojpur.

In the port of Calcutta there were 52 admissions, but no deaths, among the European seamen; while in the native floating population there were 13 deaths, 9 of them out of hospital, or 0·50 per mille of strength.

Dysentery and Diarrhœa in Assam.

222. There were 23,136 deaths registered as due to these causes in Assam in 1897, an increase of 7,132; and the death-rate was 4·61 per thousand against 3·19, the death-rate of the previous year, and against 3·06, the quinquennial mean death-rate. The months of greatest mortality were November, October, and July, and those of least mortality, February, January, and March. Each month of 1897, except January, had more deaths than the corresponding month of 1896. It is supposed that a good many cases of cholera were returned under this head in the Sibsagar district, and that the large amount of bowel complaints in the Surma Valley was due to the excessive prevalence there of malarial fevers, along with which these bowel affections frequently appear as complications. The heavy mortality from dysentery and diarrhœa in the Khasi and Jaintia Hills is stated to have been the result of the exposure to which the people were subjected after the earthquake. The highest district ratio was that of Lakhimpur (11·65), and the lowest that of Goalpara (0·79). Excluding those, three districts had ratios not under 5 per mille; and four, ratios not under 1. The rural mortality was 4·46 and the urban 11·47. The extreme town mortalities were 33·47 at Golaghat and 0·83 at Jowai.

Dysentery and Diarrhœa in the North-Western Provinces and Oudh.

223. The total number of deaths ascribed to these causes in 1897 was 58,822, an increase of 17,964; and the death-rate was 1·25 against the 0·87 of 1896 and the 0·97 of the quinquennium. The months of heaviest mortality were March, August, and September, and those of lightest mortality December, February, and January. Each month of 1897, except December, had more deaths than the corresponding month of 1896; and in February, March, and April the increase amounted to doubling or more. The highest district death-rates were those of Garhwal (5·91), Banda (4·69), Fatehpur (4·39) and Jhansi (4·36). Excepting for the hill tracts, says the Sanitary Commissioner, which always show large ratios for these diseases, the explanation no doubt lies in the exposure necessarily attendant on the congregation of large bodies of workers on relief works. Besides those, five districts had ratios not under 3 per mille; three, ratios not under 2; eleven, ratios not under 1; six, ratios not under 0·5; nineteen, ratios not under 0·05. The rural death-rate was 1·05, the urban 3·99. The extreme town ratios were 46·00 at Hardoi and 0·03 at Pilibhit, but five towns returned no deaths. Fatehpur, Unao, Rae Bareli, Sandila, Kunch, and Kashipur, in order, had also high ratios. Kashipur, says the Sanitary Commissioner, is notoriously unhealthy: in other cases the explanation probably lies in the existence of poor-houses.

Dysentery and Diarrhœa in the Punjab.

224. There were 15,851 deaths attributed to these causes in the Punjab, an increase of 1,965; and the ratio per thousand of the population was 0·77 against 0·68 in the previous year, and 0·83, the quinquennial mean. The heaviest mortalities occurred in the months of October, November, and September, and the lightest in February, March, and January. June and the last four months of the year had more deaths than the corresponding months of 1896. The increase was greatest in October, Novem-

ber, and December. The highest district death-rates were those of Hissar (2·02) and Simla (2·01); six districts had ratios not less than 1 per mille; thirteen, ratios not less than 0·5; and ten, ratios not less than 0·05. The rural mortality was 0·58, and the urban, as usual greater, 2·52. Exclusive of three towns which returned no deaths, the urban extremes were 12·74 at Balabgarh and 0·13 at Patti.

Dysentery and Diarrhœa in the Central Provinces.

225. The number of deaths registered under this heading in the Central Provinces was 81,092, an increase of 51,210; and the death-rate per thousand of population was 8·53 against the 3·15 of 1896 and the 2·02 of the quinquennium. The months of greatest mortality were September, August, and October, and those of least mortality, December, January, and April. Each month of 1897 saw the occurrence of more deaths than the corresponding month of 1896; and only in December was the increase less than twice or thrice. The exceptionally high death-rate from such causes, says the Sanitary Commissioner, clearly indicates the severity and extent of the late famine, and the distress and suffering which affected a large proportion of the population. Dysentery and diarrhœa are the specially fatal diseases of the aborigines, who, living from hand to mouth on jungle foods, suffer severely from bowel disorders, particularly in times of scarcity, and rapidly succumb to such complaints. The highest district death-rates were those of Merwara (24·14) and of Mandla (23·12); one district had a ratio not under 15 per mille; five districts, ratios not under 10; six, ratios not under 5; and six, ratios not under 1. The rural death-rate was 6·99, the urban 25·16. The extreme town mortalities were 188·59 at Burha and 0·16 at Kamptee. Eight other towns out of the seventy-two had ratios over 100, two of them, Mungeli and Mandla, over 160.

Dysentery and Diarrhœa in Berar.

226. The total number of deaths registered as due to these causes in Berar in 1897 was 29,549, an increase of 11,827; and the death-rate was 10·36 per mille, as compared with 6·23 in the previous year, and with 5·8, the mean death-rate of the previous five years. The heaviest mortalities occurred in the months of September, August, and October, and the lightest in the months of February, March, and January. Each of the first five months of 1897 had fewer, and each of the other months more, deaths than the corresponding month of 1896. The increase amounted to more than doubling in August and November, and to more than trebling in September and October. The famine distress in itself, says the Sanitary Commissioner, is sufficient to account for the great increase of mortality under this head, as diarrhœa and dysentery are the usual ending in chronic starvation. It was noted at poor-houses and other centres of medical relief that as soon as the monsoon rains set in bowel complaints became rife amongst the destitute poor, a large proportion of the mortality being due to dysentery and diarrhœa. The highest district death-rate was that of Ellichpur (16·4); two other districts had ratios not below 10 per mille; two, ratios not below 5; and one a ratio below 5. The rural mortality was 10·2; the urban mortality 11·3; and the urban extremes were 27·4 at Pusad and 0·3 at Wadegaon. Seven other towns out of the 38 had ratios over 20 per mille.

Dysentery and Diarrhœa in Madras.

227. The total number of deaths registered under this heading in Madras in 1897 was 38,716, an increase of 13,914; and the death-rate was 1·19 compared with the 0·76 of 1896 and the 0·8 of the quinquennium. The months of greatest mortality were

August, September, and July, and those of least mortality, April, March, and February. Every month except December had more deaths than the corresponding month of 1896; and the increase in July and August nearly amounted to doubling. Seven of the districts which contributed to the excess were "formally recognised" as suffering from famine. The highest district mortalities were those of Madras (4·5), Malabar (3·3), and South Canara (3·2); three other districts had ratios not under 2 per mille; four, ratios not under 1; nine, ratios not under 0·5; and three, ratios not under 0·05. The rural death-rate was 1·0, the urban, as usual higher, 3·5. The town ratio-extremes were 8·5 at Bimlipatam, and 0·1 at several towns; but 12 towns returned no deaths from dysentery and diarrhœa. In view of the continued presence of diarrhœa and dysentery in Coonoor, from which the death-rate in 1897 was 7·2, the Sanitary Commissioner urges upon the municipality the adoption of a sound scheme of water-supply now before it, "if it does not wish the fame of Coonoor as a sanitarium to pass away from it for ever."

Dysentery and Diarrhœa in Coorg.

228. During 1897 the number of deaths under this heading in Coorg rose to 538 from 323 in the preceding year. The ratio of 1897 was 3·11, that of 1896, 1·87; and that of the quinquennium, 1·56. In June, July, and August the deaths were most, and in February, March, and December least, numerous. Each month of 1897 had more deaths than the corresponding month of 1896, double in March, nearly double in February, June, and July, and more than double in September and October. The rural mortality was 1 89, the urban, 15·54. The town extremes were 36·43 at Virajendrapet and 0·66 at Somvarpet.

Dysentery and Diarrhœa in Bombay.

229. During 1897 the number of deaths from these causes in Bombay was 85,966, an increase of 49,920; and the ratio per mille of population was 4·57, against the 1·92, of 1896 and the 1·85 of the quinquennium. The months of greatest mortality were August, September, and July, and those of least mortality February, January, and March. Every month of 1897 had more deaths than the corresponding month of 1896; and after March the increase in most cases amounted to more than double or treble. There is no doubt, says the Sanitary Commissioner, that the large rise in mortality from dysentery and diarrhœa is due to famine. In areas where the famine most prevailed the mortality is found to be the highest, and in the areas upon the fringe of the famine the death-rates are also high. The highest district death rate was that of Sholapur (12·22); eight other districts had ratios not less than 5 per mille; four, ratios not less than 1; two, ratios not less than 0·5; and nine, ratios not less than 0·05. The rural death-rate was 4·48; the urban, as usual higher, 5·17. The urban extremes, excluding three towns that returned no deaths from the diseases in question, were 23·14 at Athni and 0·12 at Dholka.

Dysentery and Diarrhœa in Lower Burma.

230. In Lower Burma the number of deaths registered from dysentery and diarrhœa was 8,793, or 1,016 more than the number of the previous year. The ratio per thousand of population was 1·95 for 1897, 1·72 for 1896, and 1·59 for the quinquennium. Deaths were most numerous in July, August, and June, and least so in November, January, and October. In each month of 1897, except January, June, September, October, and November, there were more deaths than in the corresponding month of 1896, double in April, and not far from the same in February and March. Four districts had ratios not under 3 per mille, Toungoo having the

highest; five, ratios not under 2; seven, ratios not under 1; and two, ratios under 0·5. The rural mortality was 1·83, the urban, as usual greater, 2·71. Excluding three towns that returned no deaths from bowel complaints, the urban extremes were 8·43 at Ramree and 0·16 at Shwedaung.

Injuries.

Injuries in India.

231. The deaths recorded under "injuries" during 1897 are shown in the two sub-joined statements. The first shows the distribution of deaths caused in the different provincial registration areas month by month, and the second the details of deaths which resulted from the different sub-heads included under the general term "injuries."

In all there were 115,947 deaths, or 23,416 more than in the preceding year. Most of the provinces participated in the increase. The ratio of mortality ranged from 0·79 in the Central Provinces to 0·22 in Mysore. The months that saw most deaths from injury were August and November; and the maximum usually falls in the third quarter of the year.

The increase in the case of death from the attacks of snakes and wild beasts was much less than that in the case of any of the other three causes mentioned in the second table. The increase under "accident" in Bengal was due to the contribution of 13,216 deaths in the Chittagong district by the cyclone of the 24th October; and violent death in Assam was increased by the earthquake of the 12th June. Doubtless in some provinces famine was responsible for a certain amount of increase in death by suicide, and perhaps by wounding.

Statement showing the deaths from INJURIES *registered in the different Provinces by months during the year 1897.*

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.		Ratio of deaths per 1,000 of population.	
													1897.	1896.	1897.	1896.
Bengal . . .	1,000	1,074	1,582	1,995	13,154	4,390	4,798	4,988	4,593	4,389	9,298	1,335	42,596	28,422	0·59	0·40
Assam . . .	89	66	103	116	171	954	277	221	242	187	123	101	2,650	1,592	0·53	0·32
N.-W. Provinces and Oudh . .	1,660	1,563	1,843	2,212	2,825	3,691	4,363	4,831	4,643	3,006	1,675	1,238	33,550	28,453	0·71	0·61
Punjab . . .	36	359	432	538	640	810	1,023	1,123	832	445	327	300	7,265	7,093	0·35	0·35
Central Provinces .	537	411	464	635	628	752	753	887	932	683	466	402	7,550	6,391	0·79	0·67
Berar . . .	56	74	77	99	100	131	141	146	195	136	101	79	1,335	923	0·47	0·32
Lower Burma .	94	65	81	102	96	82	86	93	110	102	104	95	1,110	1,028	0·25	0·23
Madras Presidency	777	831	1,002	1,006	1,060	1,040	952	971	1,008	1,137	926	873	11,583	10,822	0·36	0·33
Bombay „ .	-	395	425	512	617	727	740	725	765	699	492	426	6,907	6,238	0·37	0·33
Ajmere-Merwara .	8	14	13	17	32	33	39	34	27	22	8	9	256	280	0·47	0·52
Coorg . . .	8	8	6	1	6	4	2	9	4	5	3	4	60	56	0·35	0·32
Mysore . . .	70	70	92	84	103	79	82	100	104	116	96	89	1,085	1,233	0·22	0·25
Total .	5,119	4,930	6,120	7,317	9,432	12,693	13,256	14,128	13,455	10,927	13,619	4,951	115,947	92,531	0·53	0·43

Statement showing details of deaths from INJURIES *registered in the different Provinces during the year 1897.*

Province.	Population under registration.	Details of deaths from Injuries.				Total.
		Suicide.	Wounding.	Accident.	Snake-bite or killed by wild beasts.	
Bengal	71,069,617	3,828	2,033	24,274	12,461	42,596
Assam	5,021,084	119	147	2,081	303	2,650
N.-W. Provinces and Oudh	46,904,791	3,834	1,906	2,298	5,512	33,550
Punjab	20,553,982	355	685	5,024	1,201	7,265
Central Provinces	9,501,401	1,424	733	4,020	1,373	7,550
Berar	2,852,825	271	47	873	144	1,335
Lower Burma	4,514,773	80	180	305	545	1,110
Madras Presidency	32,598,301	2,173	7,150		260	11,583
Bombay „	18,820,346	652	636	4,301	1,318	6,907
Ajmere-Merwara	542,358	8	33	165	50	256
Coorg	173,055	8	13	36	3	60
Mysore	4,843,523	112	96	729	148	1,085
Total	217,396,056	12,864	57,765		25,318	115,947

All Other Causes.

All other causes in India.

232. The number of deaths recorded under "All Other Causes" was 1,476,672 against 1,358,260; and the ratio per thousand of population, 6·79 against 6·24. Only in Bengal, Madras, and the Punjab was there a decrease of ratio. The greatest number of cases under this heading was returned in August.

Statement showing the deaths from ALL OTHER CAUSES *registered in the different Provinces by months during the year 1897.*

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.		Ratio of deaths per 1,000 of population.	
													1897.	1896.	1897.	1896.
Bengal	27,325	24,367	30,679	24,898	25,000	24,289	26,459	36,535	30,769	28,992	38,613	32,254	350,180	352,036	4·92	4·95
Assam	3,563	2,807	3,043	2,916	3,109	2,974	3,581	3,580	4,153	4,872	5,179	5,563	45,340	40,988	9·03	8·16
N.-W. Provinces and Oudh	20,729	18,644	20,786	21,789	19,620	15,668	15,516	16,377	16,483	16,687	14,322	13,548	21,169	175,701	4·48	3·75
Punjab	14,415	12,218	12,347	11,219	12,555	12,596	12,629	14,017	16,517	19,390	19,415	18,268	175,586	183,355	8·54	8·92
Central Provinces	10,563	8,310	7,422	7,191	9,539	10,828	11,146	14,823	13,504	11,081	8,483	7,183	120,073	90,704	12·64	9·55
Berar	1,982	1,583	1,723	2,131	3,076	3,197	3,813	6,648	7,274	5,436	3,433	2,692	42,988	31,137	15·07	10·95
Lower Burma	3,354	2,970	2,933	2,875	3,186	3,505	4,483	4,685	4,916	4,773	4,505	4,242	46,427	41,733	10·28	9·24
Madras Presidency	29,510	22,538	22,526	20,869	23,747	24,585	27,784	27,488	28,224	30,579	29,837	32,124	319,811	322,137	9·81	9·84
Bombay Presidency	8,462	6,555	10,048	11,442	12,095	12,726	12,748	13,960	13,366	12,878	13,416	15,807	143,503	100,112	7·62	5·32
Ajmere-Merwara	126	92	117	123	200	88	84	127	153	155	140	225	1,630	1,426	3·00	2·63
Coorg	60	37	71	64	69	58	72	83	49	49	50	51	713	579	4·12	3·35
Mysore	1,609	1,243	1,563	1,400	1,541	1,651	1,910	1,802	1,944	1,899	1,791	1,899	20,252	18,352	4·18	3·79
Total	121,698	101,364	113,258	106,917	113,737	112,165	120,225	140,125	137,352	136,791	139,184	133,856	1,476,672	1,358,260	6·79	6·24

Charitable medical relief in India in 1897.

233. The statistics of charitable medical relief afforded in the different provinces of India during 1897, and of the expenditure incurred in maintaining the dispensaries in each province during the year, are summarised in the statement given as Appendix C to this section.

Plague Literature referred to in Section VI.

Abbreviations used below.

N. P. I.=Nathan's The Plague in India.
S =Snow's Report on Plague in Bombay, 1895-97.
M. H. O.=Report of Municipal Health Officer of Bombay in the Municipal Commissioner's Report, 1897-98.
P. C. G.=General Gatacre's Plague Committee Report.
P. C. C.=Sir J. M. Campbell's Plague Committee Report.
P. R. C.=Bombay Plague Research Committee's Report.
P. P.=Report on Plague in the Punjab by James.
G. P. C.=German Plague Commission.
A. P. C =Austrian Plague Commission.
P. A.=Account of Plague Administration in the Bombay Presidency, 1896-97, by Couchman.
P.=Payne on Plague in Vol. I. of Allbutt's System of Medicine.
P. C.=Evidence given before Plague Commission.
M.=Manson's Tropical Diseases.

Other abbreviations are explained at the end of Section II.

(1) P., page 974 ; Wilm in H. R. VII, page 224 ; Aoyama, C. B. XIX, page 483 ; Lowson, quoted in C. B. XXI, pages 611 and 612 ; G. P. C. in D. M. W., 1897, Nos. 17, 19, 31, and 32, quoted in C. B. XXII, page 459 ; Sticker in M. M. W. 1898, No. 1, quoted in C. B. XXIII, pages 801, 802 ; P. R. C., page 30 ; M., page 160 ; P. C. G., page 72 ; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1251 ; Ogata in C. B. XXI, page 772.

(2) P. R. C., page 34 ; Babes and Livadite in F. M. 16, page 781 ; Lustig and Zardo, quoted in C. B. XXIII, page 607 ; Honl, quoted in C. B. XXII, page 101.

(3) Lehmann and Neumann's Atlas, page 194 ; Wilm in H. R. VII, page 229 ; Yersin in A. P. VIII, page 664 ; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1251 ; Zettnow, quoted in C. B. XIX, page 947 ; Abel in C. B. XXI, page 497 ; Klein in C. B. XXI, page 898 ; P. R. C., page 50 ; M., page 146 ; P. C. G., page 72 ; Ogata in C. B XXI, page 770 ; Kasanski, quoted in C. B. XXIII, page 25 ; Honl, quoted in C. B. XXII, page 101 ; Gordon in C. B XXII, page 170 ; G. P. C. quoted in C. B. XXII, page 455.

(4) N. P. I., page 3 ; Yersin in A. P. VIII, page 665 ; Klein in C. B. XXI, page 898 ; Ogata in C. B. XXI, page 773 ; Hankin and Leumann in C. B. XXII, page 438 ; P. R. C., page 4 ; M., page 148 ; B. M. J. of 5th March 1898, epitome-page 40 ; Hankin quoted in C. B. XXIV, page 587 ; P. C. G., page 73 ; Kasanski, quoted in C. B. XXIII, page 26.

(5) N. P. I., pages 25 and 26 ; James quoted in I. L. of 16th September 1897, page 262 ; Wilm in H. R. VII, page 290 ; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1253 ; Abel in C. B. XXI, pages 505 and 515 ; Wilson, quoted in C. B. XXII, page 13 ; de Giaxa and Gosio, quoted in C. B. XXII, page 351 ; Toptschieff in

C. B. XXIII, pages 733 and 735 ; Gabritschewsky, quoted in C. B. XXIII, page 510 ; Kasanski, quoted in C. B. XXIII, page 26 ; G. P. C. quoted in C. B. XXII, page 459 ; P. R. C., page 52 ; M., page 163 ; Hankin in A. P. XII, page 761 ; Germano in Z. H. XXVI, quoted in H. R. VIII, page 944, and in F. M. XVI, page 234 ; Flügge in Z. H. XXV, page 179, quoted in F. M. XVI, page 235 ; Gladin as quoted under (7), pages 589-591.

(6) Yokote in C. B. XXIII, page 1030.

(7) Gladin, quoted in C. B. XXIV, page 590.

(8) N. P. I., pages 27 and 240; N. P. I. Volume II, page 419 ; Reports by Marsh, Watkins-Pitchford, and Haffkine to the Bombay Government ; James, quoted in I. L. of 16th September 1897, page 262 ; Wilm in H. R. VII, page 297 ; Abel in C. B. XXI, page 516 ; de Giaxa and Gosio, quoted in C. B. XXII, page 351 ; Kasanski, quoted in C. B. XXIII, page 26 ; Schultz in C. B. XXIII, page 594 ; G. P. C., quoted in C. B. XXII, page 460 ; P. R. C., page 51 ; M., pages 150 and 163 ; P. C. C., page 197 ; Hankin in A. P. XII, pages 724, 761, 746 and 747 ; Hankin, quoted in B. M. J. of 12th February 1898, page 451 ; Gabritschewsky, as quoted under (5) ; Hankin, quoted in C. B. XXIV, page 587 ; Gladin, as quoted under (7) ; B. M. J. of 19th November 1898, page 1566 ; Yersin in A. P. VIII, page 666 ; Devell in C. B XXII, page 385 ; Metschnikoff, quoted in H. R. VII, page 1252.

(9) N. P. I., pages 21, 22, 24, 51, and 180 ; P., pages 922 and 923 ; Lehmann and Neumann, page 195 ; James, quoted in I. L. of 16th September 1897, page 263, quoting Kitasato ; James, page 262, quoting Yersin ; Wilm in H. R. VII, pages 292 and 294 ; P. C. by Gibson ; P. C. by Lawrie ; Yersin in A. P. VIII, page 667 ; Ogata in C. B. XXI, page 776 ; Yersin, quoted in C. B. XXI, page 365 ; P. R. C., page 51 ; Hankin in A. P. XII, page 748 ; Leumann in I. M. G. of 1898, page 322 ; Hankin, quoted in B. M. J. of 8th October 1898, page 1095 ; Hankin in C. B. XXIV, page 587 ; B. M. J. of 10th December 1898, page 1776.

(10) N. P. I., pages 20 and 22 ; P., pages 924, 926, 927, and 938 ; Wilm in H. R. VII, pages 228, 291 and 234 ; Sticker, as quoted under (1), page 798 ; P. C. G., pages 52, 94, 72 ; Simond in A. P. XII, page 649 ; Germano and Flügge, as quoted under (5) ; A. P. C., case of Dr. Müller ; P. R. C., cases of Dr. Manser and nurse ; M., page 163 ; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1251 ; Abel in C. B. XXI, page 511 ; Lowson, quoted in C. B. XXI, page 610 ; Roux, quoted in C. B. XXI, page 368 ; G. P. C., quoted in C. B. XXII, page 453 ; Sticker, as quoted under (1), page 805 ; P. R. C., pages 5, 8, and 45 ; Leumann in I. M. G. of 1898, page 323 ; Yamagiwa, quoted in F. M. XVI, pages 758, etc.; Hankin in A. P. XII, page 758, quoting Collie, and 759 ; Leumann in I. M. G. of 1898, page 284 ; P. C. by Leumann ; Wyssokowitz and Zabolotny, quoted in C. B. XXII, page 697.

(11) G. P. C., quoted in C. B. XXII, page 457; P. C. G., page 137; P. R. C., page 12.

(12) Palmer in L. of 19th November 1898, page 1307; P., page 924; Weir in S. and M. H. O.; Hankin in A. P. XII, page 731; P. C. by Griesbach; A. P. C., Volume I; de Giaxa and Gosio, quoted in C. B. XXII, page 351.

(13) N. P. I., pages 35 and 48; Haffkine letter to P. C.; Chaytor-White, Bubonic Plague at Hurdwar; Yersin, Calmette, and Borrel in A. P. IX, page 589; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1252; Janson, quoted in C. B. XIX, page 947; G. P. C., quoted in C. B. XXII, page 464; Nuttall in C. B. XXII, page 93; M. H. O., page 674; M., page 151; Hankin in A.P. XII, pages 747 and 750; P. R. C., page 3; Wilm in H. R. VII, page 291; Yersin in A. P. VIII, page 666; Metschnikoff, quoted in H. R. VII, page 1251; Lowson, quoted in C. B. XIX, page 484; Ogata in C. B. XXI, page 774; de Giaxa and Gosio, quoted in C. B. XXII, page 351.

(14) N. P. I., pages 37 and 48; P., pages 923 and 925; James, quoted in I. L. of 16th September 1897, pages 260 and 264; P. C.; Yersin in A. P. VIII, pages 663 and 666; Janson, as quoted under (13), page 948; Ogata in C. B. XXI, page 774; Hankin in C. B. XXII, page 437; Sticker, as quoted under (1), page 798; G. P. C., quoted in C. B. XXII, page 464; P. R. C., page 2; P. P., pages 6, 95 and 100; M., page 153; P. A., pages 195, 205 and 228-229; P. A., pages 286 and 290; S., page 9; P. C. G., pages 93 and 231; P. C. C., page 204; Report of P. M. O., Sind, on plague, page 18; Sanitary Commissioner, Punjab, 1897, page 10; Sanitary Commissioner, N.-W. P. and Oudh, 1897, page 46; Simond in A. P. XII, page 625; Hankin in A. P. XII, page 705; Leumann in I. M. G. of 1898, page 322; This Report, Section III, paragraph 58; L. of 29th October 1898, page 1165.

(15) N. P. I., page 35; James, quoted in I. L. of 16th September 1897, pages 262, 263; Wilm in H. R. VII, page 232; Yersin in A. P. VIII, page 665; Yersin, Calmette, and Borrel in A. P. IX, pages 589, etc.; Metschnikoff in A. P. XI, quoted in H. R. VII, page 1251; Abel in C. B. XXI, pages 503 and 516; Klein in C. B. XXI, page 899; Lowson, quoted in C. B. XXI, page 611; Devell in C. B. XXII, pages 382 and 385; Galeotti and Malenchini in C. B. XXII, page 508; G. P. C., quoted in C. B. XXII, pages 462 and 466; Nuttall in C. B. XXII, page 96; Wyssokowitz and Zabolotny, quoted in C. B. XXII, pages 696 and 697; Sticker, as quoted under (1), page 800; P. R. C., pages 3 and 4; M., pages 149 and 151; Roux, quoted in A. P. XII, page 665; Bandi and Balistreri in Z. H. XXVIII, quoted in C. B. XXIV, page 891; P. R. C., page 4; Roux, quoted in C. B. XXI, page 367; Simond in A. P. XII, page 659; Hankin in A. P. XII, page 747; de Giaxa and Gosio, quoted in C. B. XXII, page 351.

(16) P., pages 922 and 926; Wilm in H. R. VII, page 291; Yersin in A. P. VIII, page 667; Ogata in C. B. XXI, pages 774-776; Roux, quoted in C. B. XXI, page 367; Hankin in C. B. XXII,

page 437; Sticker, as quoted under (1), page 798; G. P. C., quoted in C. B. XXII, pages 454 and 464; Nuttall in C. B. XXII, pages 87-92; Yamagiwa, quoted from Virchow's Archives in H. R. VIII, page 492; P. R. C., pages 3 and 52; M., page 152; S., page 227; Simond in A. P. XII, page 625; Hankin in A. P. XII, pages 747 and 761; Joly, Thèse de Bordeaux, quoted in I. L. of 16th October 1898, page 332; Hankin, C. B. XXIV, page 587.

(17) N. P. I., pages 11, 30-34; James, quoted in I. L. of 16th September 1897, page 263; Wilm in H. R. VII, pages 292 and 293; P. C.; Aoyama in C. B. XIX, page 482; Lowson, quoted in C. B. XXI, page 610; Roux, quoted in C. B. XXI, page 367; Devell in C. B. XXII, page 385; de Giaxa and Gosio, quoted in C. B. XXII, page 351; Sticker, as quoted under (1), page 799; G. P. C., quoted in C. B. XXII, pages 453, 454, 456; Wyssokowitz and Zabolotny, quoted in C. B. XXII, page 697; Yamagiwa, quoted in H. R. VIII, page 492; P. R. C., pages 4, 14, 48, and 49; M., pages 148 and 153; P. C. G., pages 51, 96, 222, 223; Simond in A. P. XII, page 625; Hankin in A. P. XII, page 727; P. C. C., page 118; S., page 127; Netter, quoted in C. B. XVII, page 527; A. P. C., Volume I, Appendix; Green in I. M. G. of August 1898, page 283, and in I. M. G. of October 1898, page 378; Maitland in I. M. G. of November 1898, page 438; I. M. G. of January 1899, page 36; Prall in I. M. G. of July 1898, page 253; Clemow, quoted by Green in I. M. G. of October 1898, page 378.

(18) N. P. I., pages 9, 19, and 35; James, quoted in I. L. of 16th September 1897, page 262; Wilm in H. R. VII, page 296; P. C.; Aoyama in C. B. XIX, page 483; Lowson, quoted in C. B. XXI, page 610; P. R. C., page 5; Sanitary Commissioner, Bombay, 1897, page 91; P. C. G, page 223; Simond in A. P. XII, pages 643, 680, 681; Leumann in I. L. of 1st November 1898, page 387; A. P. C., Volume I; Wyssokowitz and Zabolotny, quoted in C. B. XXII, page 696; P. R. C., pages 4, 48, and 49; I. M. G. of August 1898, page 301.

(19) N. P. I., pages 40-48; Wilm in H. R. VII, page 287; Abel in C. B. XXI, page 514; P. R. C., pages 1 and 2; P. P., page 6; M., page 155; Simond in A. P. XII, page 625; Hankin in A. P. XII, page 705; I. L. of 1st August 1898, page 122; I. M. G. of August 1898, page 301; L. of 30th July 1898, page 272; N. 59, page 133.

(20) N. P. I., pages 68 and 71; P., page 922; P. C.; Simpson in B. M. J. of 24th September 1898, page 853, and in I. L. of 1st November 1898, page 357; M., pages 144-146; B. M. J. of 6th August 1898, page 368; B. M. J. of 24th September 1898, page 903; Palmer in L. of 19th November 1898, page 1307; Koch, quoted in N. 58, page 254, and in F. M. XVI, page 714, and in C. B. XXIV, page 98.

(21) Reports of the Provincial Sanitary Commissioners for 1897; N. P. I.; S.; M. H. O.; P. C. G.; P. C. C.; P. A.; P. P.; History of the

Plague in Sind, 1896-97; Medical Report on the Plague in Cutch by Wilkins; Report by Chairman, Poona Plague Committee; Report on the Plague in Sind by the P. M. O., Sind District; Report of the Outbreak of Plague in Kotri; Letter on plague by Nadirshaw Sukhia; other official documents and returns.

(22) N. P. I., pages 4-7, 12, 13, 18; P., page 921; Metschnikoff, quoted in H. R. VII, page 1252; Janson, quoted in C B. XIX, page 947; Abel in C. B. XXI, page 514; Klein in C. B. XXI, page 899; Galeotti and Melenchini, C. B. XXII, page 508; Honl, C. B. XXII, page 101; G. P. C., quoted in C. B. XXII, pages 453, 454, 457; Wyssokowitz and Zabolotny, quoted in C. B. XXII, pages 695, 696 and 697; Sticker, as quoted under (1), pages 798-800; P. R. C., pages 4, 5, 9, 30, 45, 47; P. C. G., page 94; P. C. C., page 135; Simond in A. P. XII, pages 676 and 677; Arnott in Scottish Medical and Surgical Journal, pages 41 and 97; Arnott quoted in I. L. of 16th October 1898, page 323.

(23) Maps will be found in N. P. I., Volume IV; P. C. G. and P. C. C., separate, in a case; P. A.; S.; P. P.; in the article by Hankin in A. P. XII, pages 710, 718; in the article by Simond in A. P. XII, pages 631, 634, 635, 637. Simond's maps give the most recent details.

Appendix A to Section VI.

STATEMENT No. I.—*Showing the deaths from* CHOLERA *registered in the Districts of* BENGAL PROPER *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Calcutta	681,560	124	325	646	522	252	18	88	27	42	36	59	39	2,349
24-Pergunnahs	1,892,033	318	476	1,029	807	319	208	156	54	27	28	73	479	3,974
Howrah	763,625	93	362	553	326	155	150	74	30	22	55	62	61	1,943
Hoogly	1,034,296	102	125	429	388	105	76	38	24	11	41	117	117	1,573
Nuddea	1,644,108	12	108	699	1,478	449	54	6	13	20	45	471	215	3,570
Khulna	1,177,652	649	648	2,144	1,246	390	154	137	77	22	19	73	191	5,750
Jessore	1,888,827	213	355	2,033	1,644	631	85	3	10	58	185	422	328	5,969
Burdwan	1,391,880	23	177	1,380	1,120	1,038	264	143	113	51	17	55	53	4,434
Bankura	1,069,668	38	150	770	980	694	442	284	79	12	37	47	4	3,537
Beerbhoom	797,833	1	15	212	215	254	214	171	51	38	4	55	54	1,284
Midnapore	2,631,516	453	502	1,257	768	408	299	790	378	84	283	432	459	6,113
Dacca	2,395,602	416	168	909	1,355	447	59	13	21	43	109	338	470	4,348
Furreedpore	1,823,543	388	404	2,515	3,849	839	52	15	24	89	245	424	611	9,455
Backergunge	2,153,965	826	1,056	3,923	3,748	1,002	189	101	61	14	5	56	321	11,302
Mymensingh	3,472,186	553	417	893	1,347	991	354	107	17	55	178	1,363	1,021	7,296
Darjeeling	223,314	...	...	...	...	3	29	35	15	8	1	1	...	92
Jalpaiguri	681,352	2	2	4	8	9	11	45	55	40	23	6	...	205
Moorshedabad	1,250,946	13	3	30	280	532	234	341	277	109	101	184	118	2,222
Dinagepore	1,555,835	112	33	11	1	18	58	120	34	9	...	56	103	555
Maldah	814,919	11	10	...	50	146	547	438	60	72	480	1,039	276	3,129
Rajshahye	1,313,336	65	103	156	719	658	101	174	662	247	98	181	119	3,283
Rungpore	2,065,464	5	14	245	616	335	9	14	13	299	840	2,488	2,372	7,250
Bogra	817,494	5	14	5	55	25	60	137	97	93	191	196	227	1,105
Pubna	1,361,223	127	133	224	1,579	633	18	32	153	227	351	327	143	3,947
Purneah	1,944,658	...	13	131	248	114	41	71	102	110	223	365	251	1,669
Chittagong	1,290,167	64	222	373	1,088	2,548	1,632	736	305	74	27	442	3,270	10,781
Noakhally	1,009,693	185	299	789	769	531	128	73	51	11	8	36	44	2,924
Tipperah	1,782,935	477	581	1,512	934	427	70	28	16	1	2	25	137	4,210
Balasore	994,625	211	118	285	286	271	129	646	261	40	196	562	199	3,304
Cuttack	1,937,671	11	98	969	836	594	606	1,332	1,739	1,900	800	2,568	815	11,368
Pooree	944,998	55	49	328	405	841	3,107	2,168	1,132	417	234	233	81	9,050
Rajmahal or Sonthal Deoghur Parganas	1,754,196	1	35	88	125	619	1,444	1,747	1,810	852	270	101	15	7,107
Palamau	596,770	...	...	...	...	66	749	1,088	1,314	630	94	4	...	3,945
Manbhoom	1,193,328	39	60	436	989	1,433	2,113	1,953	1,225	108	1	7	1	8,365
Hazaribagh	1,164,321	...	2	7	61	233	315	1,470	3,600	587	92	13	6	6,386
Ranchi or Lohardaga	1,128,885	...	...	15	14	28	42	703	5,832	2,222	205	...	...	9,061
Chybassa or Singbhum	545,488	...	64	66	38	99	112	146	380	87	37	20	...	1,049
Monghyr	2,036,021	...	3	77	292	1,017	1,279	525	347	194	295	194	13	4,236
Bhagalpur	2,032,696	...	2	130	422	358	278	155	490	398	363	507	127	3,330
Gya	2,138,331	1	1	5	8	683	1,534	1,448	1,587	657	328	166	7	6,425
Patna	1,769,004	3	2	14	363	387	238	276	429	135	42	45	4	1,938
Shahabad	2,063,927	...	2	...	14	228	700	1,000	767	179	111	53	...	3,054
Sarun	2,466,065	1	...	34	24	40	141	105	304	194	16	14	...	878
Tirhoot or Muzaffarpore	2,712,857	...	...	1	5	28	40	147	386	196	110	39	3	955
Champarun	1,859,465	...	...	...	...	4	2	15	452	663	124	49	...	1,309
Durbhanga	2,801,955	...	3	1	6	26	98	37	100	22	40	55	32	420
TOTAL	71,070,233	5,597	7,154	25,328	30,028	20,908	18,654	19,331	24,979	10,469	6,990	14,013	12,786	196,247

STATEMENT No. II.—*Showing the deaths from* CHOLERA *registered in the Districts of* ASSAM *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Cachar	367,542	73	141	228	577	683	164	58	52	45	27	140	122	2,319
Sylhet	2,154,573	490	521	647	848	1,188	231	171	94	125	360	5,150	1,425	7,250
Goalpara	452,304	143	92	199	328	628	205	100	37	125	479	1,037	1,316	4,680
Kamrup	634,249	75	9	40	65	342	455	741	820	1,160	2,215	3,336	1,827	11,085
Darrang	307,761	133	187	162	213	540	318	114	30	17	16	7	13	1,750
Nowgong	344,141	87	58	21	73	78	54	87	45	83	58	37	17	698
Sibsagar	457,274	226	301	1,678	1,104	606	237	104	58	53	31	37	24	4,459
Lakhimpur	254,053	39	99	142	112	233	115	83	38	26	41	12	8	948
Khasi and Jaintia Hills	49,167	...	...	...	...	1	5	26	6	6	...	4	3	51
TOTAL	5,021,284	1,266	1,408	3,108	3,320	4,299	1,784	1,484	1,180	1,640	3,227	5,769	4,755	33,240

Appendix A to Section VI.—*continued.*

STATEMENT No. III.—*Showing the deaths from* CHOLERA *registered in the Districts of the* NORTH-WESTERN PROVINCES AND OUDH *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Eastern Districts.														
Ghazipur	1,024,753	...	1	1	14	20	109	67	40	42	39	6	4	343
Ballia	995,327	9	...	...	1	20	169	313	177	47	6	4	...	746
Benares	921,943	...	1	51	89	184	283	165	100	34	3	6	7	914
Mirzapur	1,161,508	...	...	123	265	174	557	242	89	65	25	5	...	1,545
Azamgarh	1,728,625	...	18	23	7	40	97	331	267	36	35	...	2	856
Jaunpur	1,204,949	...	106	195	129	50	278	248	87	30	...	...	8	1,131
Gorakhpur	2,934,057	...	14	4	29	128	576	1,148	1,298	514	202	50	14	3,977
Basti	1,785,844	2	7	2	12	20	275	387	375	135	166	242	438	2,061
Allahabad	1,534,651	...	31	706	759	6 6	811	132	59	53	23	7	6	3,203
Fatehpur	699,137	...	2	25	62	292	407	28	30	54	3	1	...	904
Cawnpore	1,209,695	...	...	28	50	72	81	72	18	147	309	1	...	778
Fatehgarh or Farukhabad	858,687	...	...	...	1	...	...	3	6	21	15	1	...	47
Districts south of, or bordering on, the Jumna.														
Banda	705,832	...	...	73	693	653	366	128	3	1	...	1	1	1,919
Hamirpur	513,720	...	...	...	...	206	1,044	86	123	13	...	...	...	1,472
Jalaun	390,301	...	...	...	...	...	234	401	304	232	32	...	...	1,203
Etawah	727,629	...	...	...	...	17	53	103	150	78	42	1	...	444
Jhansi	683,619	...	...	...	40	163	441	275	69	31	...	...	...	1,019
Districts lying west of 80°, east longitude.														
Bareilly	1,040,691	...	...	2	2	1	...	...	...	46	536	71	...	658
Pilibhit	485,376	...	...	1*	...	...	...	...	3	416	788	349	2	1,559
Budaun	925,168	...	...	...	...	...	...	1	1	32	58	...	...	92
Shahjahanpur	918,981	1	...	...	...	...	...	24	426	761	673	20	12	1,917
Moradabad	1,179,398	3	1	1	1	1	1	...	99	550	346	30	6	1,039
Etah	702,063	...	...	1	1	...	3	2	...	1	1	...	...	9
Mainpuri	762,163	...	...	...	...	...	2	43	40	22	...	...	...	107
Aligarh	1,043,172	...	...	1	1	2	21	8	47	13	...	1	...	94
Bulandshahr	949,914	...	...	...	...	...	2	...	2	...	1	...	...	5
Agra	1,003,796	...	...	2	...	112	385	152	140	127	18	...	...	936
Muttra	713,421	...	...	...	4	2	284	36	2	1	3	8	...	340
Meerut	1,391,458	...	...	1	1	...	...	...	...	...	...	...	...	2
Muzaffarnagar	771,874	...	...	...	...	...	...	...	...	...	...	...	...	...
Saharanpur	1,001,280	...	...	...	3	2	...	...	...	126	40	...	...	171
Bijnor	791,070	2	...	2	...	...	2	...	...	130	88	2	1	227
Dehra Dun	168,135	...	...	...	...	...	...	...	...	...	1	...	...	1
Naini Tal	362,248	1	...	1	1	2	4	31	4	...	36	88	37	205
Almora	411,301	...	...	...	...	...	...	...	...	...	...	...	...	...
Garhwal	407,818	...	...	...	...	...	...	...	...	...	...	...	...	...
Oudh.														
Partabgarh	924,974	...	...	31	46	62	134	23	5	...	...	...	...	301
Rae Bareli	1,036,521	...	...	...	13	1	58	263	300	121	106	17	7	886
Sultanpur	1,075,851	...	...	18	3	9	9	11	6	17	10	60	16	159
Fyzabad	1,216,959	3	6	12	7	9	8	74	80	57	193	114	76	639
Bara Banki	1,130,906	...	...	1	1	12	21	161	562	255	73	20	17	1,143
Lucknow	774,163	1	...	6	...	39	100	743	533	109	38	7	2	1,574
Unao	953,636	...	...	...	8	21	48	59	94	59	141	...	...	285
Gonda	1,459,229	...	...	...	19	31	189	534	976	372	355	287	90	2,905
Bahraich	1,000,432	...	...	...	1	...	24	223	410	218	123	15	4	1,018
Kheri	903,615	...	...	1	...	4	...	...	78	449	390	110	26	1,058
Sitapur	1,075,413	...	14	2	2	3	9	103	335	1,144	615	78	21	2,326
Hardoi	1,113,211	...	...	...	...	...	232	873	625	180	89	...	...	1,999
TOTAL	46,904,791	22	204	1,314	2,256	2,963	7,317	7,534	7,978	6,721	5,495	1,602	797	44,205

* This death actually occurred in 1896 but was reported in March 1897.

† These deaths actually occurred in September 1897 but were reported in October 1897.

Appendix A to Section VI—*continued.*

STATEMENT No. IV.—*Showing the deaths from* CHOLERA *registered in the Districts of the* PUNJAB *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May	June.	July.	August.	September.	October.	November.	December.	
Gurgaon	668,863	...	...	...	...	...	...	...	2	39	20	...	...	61
Delhi	635,224	...	...	...	...	...	...	...	...	...	...	...	...	...
Rohtak	590,446	...	...	...	...	...	...	...	...	...	...	...	...	...
Hissar	775,808	...	...	...	...	...	11	160	147	154	66	...	...	538
Karnal	683,652	...	...	...	...	...	...	...	...	...	...	...	...	...
Umballa	982,291	...	...	...	...	...	...	...	...	...	...	...	...	...
Simla	35,246	...	...	...	...	...	...	...	...	...	...	...	...	...
Jullundur	8..,347	...	...	...	...	...	...	...	...	...	...	...	...	...
Ludhiana	648,655	...	...	...	...	...	...	...	...	...	...	...	...	...
Hoshiarpur	1,011,644	...	...	...	...	...	...	...	...	...	...	...	...	...
Kangra	755,458	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurdaspur	940,785	...	...	...	...	...	...	...	1	...	5	...	...	6
Sialkot	1,098,712	...	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar	990,990	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujrat	760,823	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujranwala	690,061	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore	1,015,619	...	...	...	...	...	2	...	...	...	...	...	...	2
Ferozepur	861,499	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery	499,[illegible]49	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan	620,859	...	...	...	...	...	...	...	...	...	...	...	...	...
Muzaffargarh	381,072	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	399,860	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan	482,463	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhang	436,821	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahpur	493,535	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhelum	605,774	...	...	...	...	...	...	...	...	...	...	...	...	...
Hazara	476,125	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	845,259	...	...	...	...	...	...	15	...	...	...	...	...	15
Peshawar	671,150	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat	190,514	...	...	...	...	...	...	...	...	...	...	...	...	...
Bannu	369,972	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	20,553,982	...	...	...	...	...	13	175	150	193	91	...	...	622

STATEMENT No. V.—*Showing the deaths from* CHOLERA *registered in the Districts of the* CENTRAL PROVINCES *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Raipur	1,255,[illegible]08	...	26	107	641	4,690	5,496	1,082	270	53	56	78	21	2,610
Bilaspur	827,433	37	105	700	902	1,681	3,830	604	111	84	102	2	6	8,164
Sambalpur	388,205	...	...	24	207	405	593	104	29	103	15	...	...	1,480
Jubbalpur	574,838	7	78	212	160	251	287	72	19	...	12	...	...	1,128
Seoni	370,767	...	...	134	297	379	704	80	47	7	...	...	...	1,648
Mandla	339,373	...	523	392	82	681	1,220	747	184	91	8	16	...	3,944
Narsingpur	367,006	...	5	114	1,322	768	383	141	17	3	...	...	...	2,753
Merwara	173,308	11	183	134	113	487	184	3	3	...	...	...	...	1,118
Damoh	325,613	3	50	523	285	374	865	47	140	...	...	...	...	2,287
Saugor	591,743	23	138	209	551	971	1,019	118	11	...	...	...	...	3,080
Chhindwara	339,443	...	12	24	...	2,8	912	282	76	1	13	...	...	1,628
Betul	323,106	9	35	127	277	226	676	317	80	185	52	11	...	1,995
Hoshangabad	525,276	7	3	23	20	1,336	777	37	66	3	.	...	...	2,292
Nimar	172,120	...	...	20	27	9	427	86	159	80	...	...	...	808
Bhandara	742,850	146	100	235	313	743	1,347	617	136	116	15	...	...	3,768
Nagpur	757,862	...	11	24	250	838	644	213	304	103	23	1	...	2,501
Balaghat	383,331	33	...	255	349	789	705	93	81	51	2	...	20	2,378
Wardha	400,854	7	10	13	59	318	561	75	76	46	6	...	...	1,174
Chanda	561,099	...	...	28	451	396	422	55	150	181	86	73	4	2,316
Burhanpur	81,366	...	...	25	28	2	...	...	1	3	...	...	...	59
TOTAL	9,501,401	83	1,279	3,443	6,334	15,632	21,[illegible]25	5,243	1,9[illegible]0	1,200	290	181	51	57,131

Appendix A to Section VI—*continued.*

STATEMENT No. VI.—*Showing the deaths from* CHOLERA *registered in the Districts of* BERAR *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Akola . . .	580,590	...	...	...	95	321	557	343	1,574	341	13	...	...	3,244
Buldana . .	478,029	...	...	15	...	...	31	302	961	335	49	...	...	1,693
Basim . . .	398,181	...	...	...	...	1	38	367	492	110	37	...	...	1,045
Amraoti. . .	655,645	55	59	107	391	862	304	166	847	111	1	...	...	2,899
Ellichpur . .	259,164	22	...	22	260	384	47	48	102	10	...	...	...	895
Wun . . .	471,013	...	...	...	62	108	52	...	54	70	...	...	...	346
TOTAL .	2,843,222	77	59	144	808	1,676	1,029	1,226	4,026	977	100	...	...	10,122

STATEMENT No. VII.—*Showing the deaths from* CHOLERA *registered in the Native States of* RAJPUTANA *and* CENTRAL INDIA *during each month of 1897.*

NATIVE STATES.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Rajputana.														
Marwar (Jodhpur).	2 526,000	...	...	..	...	...	...	7	16	7	...	...	...	30
Bhurtpur . .	645,540	...	...	...	...	...	162	52	29	71	14	...	...	328
Jhallawar . .	343,583	...	...	...	...	...	11	70	69	4	...	...	...	154
Bikanir .	831,943	...	...	...	...	...	...	52	125	38	15	3	...	233
Ulwar . . .	767,786	...	...	...	...	...	6	63	115	41	32	...	...	257
Jeypore . .	2,832,276	...	...	...	...	...	...	39	243	101	18	...	...	401
Dholpore . .	279,890	...	...	...	...	...	...	3	35	12	...	...	...	50
Karauli . .	156,587	...	...	...	...	...	...	...	32	11	...	...	...	43
TOTAL .	8,383,605	...	...	...	...	...	179	286	664	285	79	3	...	1,496
Central India.														
Baghelkhand. .	1,731,180	...	701	1,600	360	373	267	35	2	...	...	...	...	3,338
Indore . . .	Not stated	...	...	...	...	35	326	28	22	1	...	...	...	412
Bundelkhand. .	Ditto	...	39	60	26	222	521	406	55	1	...	...	...	1,333
Bhopal . . .	12,248	...	...	...	...	...	852	1,188	984	405	77	...	...	3,510
Bhopawar . .	Not stated	...	...	...	4	5	48	219	435	196	3	...	...	910
Gwalior. . .	Ditto	...	...	...	49	137	1,376	624	429	147	67	...	...	2,829
Malwa . . .	Ditto	...	...	...	...	51	541	156	118	4	...	...	...	870
TOTAL	Not stated	...	740	1,660	439	823	3,954	2,656	2,045	758	147	...	...	13,202
GRAND TOTAL .	Not stated	...	740	1,660	439	823	4,113	2,942	2,709	1,043	226	3	...	14,698

Appendix A to Section VI—*continued.*

STATEMENT No. VIII.—*Showing the deaths from* CHOLERA *registered in the Districts of* HYDERABAD *during each month of 1897.*

District.	Population.	Number of Cholera deaths registered in each month.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Raichur . . .	Not stated	8	...	...	...	...	...	6	26	34	10	...	...	84
Hingoli . . .	Ditto	...	...	...	...	...	...	1	6	...	...	...	...	7
Mominabad . .	Ditto	...	...	...	...	80	20	...	13	...	...	...	...	113
Bolaram . .	Ditto	...	...	...	...	20	17	2	2	...	...	5	...	46
Hyderabad . .	Ditto	1	...	...	...	5	134	549	77	5	2	...	...	773
Jalna . . .	Ditto	...	...	...	...	...	...	2	11	...	...	...	...	13
Aurangabad . .	Ditto	...	...	...	...	...	...	...	1	2	...	...	...	3
TOTAL .	Not stated	9	...	...	...	105	171	560	136	41	12	5	...	1,039

STATEMENT No. IX.—*Showing the deaths from* CHOLERA *registered in the Districts of the* MADRAS PRESIDENCY *during each month of 1897.*

District.	Population.	Number of Cholera deaths registered in each month.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Gunjam . .	1,236,097	362	284	455	684	1,976	5,396	3,604	1,259	619	569	356	89	15,553
Vizagapatam . .	1,630,586	10	127	309	113	509	661	1,517	595	479	549	154	80	5,103
Godavari . .	2,077,858	1	122	89	163	260	214	1,176	1,876	1,337	1,910	586	220	7,954
Kistna . . .	1,855,024	36	69	57	37	...	...	78	861	1,125	494	218	198	3,173
Nellore . . .	1,463,357	39	10	23	...	...	...	2	81	92	127	98	219	691
Madras . . .	436,375	21	8	5	...	...	4	10	34	42	13	5	10	152
Chingleput . .	1,199,901	120	61	146	39	29	141	525	394	154	121	82	195	2,007
South Arcot . .	2,162,336	4,262	1,492	389	135	28	66	178	110	183	183	234	1,843	9,103
Trichinopoly . .	1,371,726	1,701	391	168	77	65	8	5	12	38	77	270	938	3,750
Tanjore . . .	2,227,081	2,746	1,341	986	363	295	197	259	140	426	854	1,451	7,663	16,721
Madura . .	1,573,318	2,880	805	689	577	385	94	30	95	539	1,003	1,346	1,008	9,451
Tinnevelly . .	1,915,702	1,625	555	441	316	400	1,059	931	418	192	196	475	1,363	7,971
Kurnool . . .	817,660	...	5	...	...	...	...	338	1,118	1,615	741	65	1	3,883
Cuddapah . .	1,271,721	247	125	30	2	...	...	1	173	1,405	2,450	500	219	5,152
Bellary . . .	890,485	...	...	...	1	...	6	253	1,038	982	594	196	65	3,135
Anantapur . .	727,319	85	137	21	...	...	...	...	76	1,803	1,716	439	52	4,329
North Arcot . .	2,113,585	716	323	120	63	258	400	925	1,711	773	510	484	546	6,829
Salem . . .	1,961,784	1,432	513	268	145	118	92	96	65	139	84	263	249	3,464
Coimbatore . .	2,003,911	2,532	732	390	665	704	345	241	109	111	77	204	231	6,341
Nilgiris . . .	96,765	6	...	6	4	27	38	1	...	...	...	...	3	85
South Canara . .	1,052,002	1	...	...	...	...	...	...	...	13	130	253	668	1,065
Malabar . .	2,636,674	899	1,185	1,361	781	1,063	1,892	5,729	10,523	2,163	639	780	518	27,533
TOTAL .	32,721,267	19,721	8,285	5,953	4,165	6,117	10,613	15,899	20,688	14,130	13,037	8,459	16,378	143,115

Appendix A. to Section VI.—*continued.*

STATEMENT No. X.—*Shewing the deaths from* CHOLERA *registered in the Districts of the* BOMBAY PRESIDENCY *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total for the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Bombay City . .	806,144	...	...	...	14	19	43	302	606	137	90	33	17	1,261
Tanna . . .	818,967	...	...	...	...	...	136	576	948	274	130	80	15	2,159
Colaba . . .	504,779	...	...	...	...	2	98	750	950	378	193	110	47	2,528
Surat . . .	649,824	...	...	...	...	1	...	24	15	25	9	49	...	123
Ahmedabad . .	92[illegible],928	...	...	...	...	...	...	...	...	...	...	...	...	...
Broach . . .	341,450	...	...	...	...	1	...	...	2	5	1	1	...	10
Panch Mahals .	3[illegible],381	...	...	...	...	...	...	...	2	5	...	...	...	7
Kaira . . .	8[illegible],529	...	...	...	...	...	1	...	7	2	...	...	...	10
Khandesh . .	1,460,319	...	...	...	...	...	96	734	2,067	420	33	...	1	3,351
Ahmednagar . .	887,056	...	...	...	...	...	105	1,473	1,303	629	190	...	...	3,700
Nasik . . .	841,087	...	...	...	...	...	1,312	958	924	185	26	5	...	3,410
Sholapur . .	750,755	36	29	171	583	583	415	1,854	318	66	189	16	2	4,262
Satara . . .	1,2[illegible],511	118	23	308	1,252	4,204	2,649	1,601	404	235	173	7	...	11,064
Bijapur . . .	796,286	24	87	167	381	2,482	544	400	344	144	41	...	...	4,614
Belgaum . .	1,011,153	588	671	957	1,650	1,992	1,324	215	37	40	16	9	...	7,499
Dharwar . . .	1,050,533	300	125	53	150	189	434	194	160	33	76	20	20	1,760
Kanara . . .	446,150	137	11	53	106	94	2	...	...	...	...	7	3	413
Ratnagiri . .	1,105,862	16	46	36	27	197	255	496	193	196	275	46	16	1,799
Poona . . .	1,661,419	...	...	...	...	43	2,221	5,172	1,381	234	78	9	...	9,138
Thar and Parkar .	312,401	...	...	...	...	...	...	...	...	...	...	...	...	...
Shikarpur . .	915,058	...	...	...	...	...	...	...	...	...	...	...	...	...
Karachi . . .	561,013	...	...	...	...	...	...	...	...	1	...	...	...	1
Hyderabad . .	883,836	...	...	...	...	...	...	...	...	...	...	...	...	...
Upper Sind . .	174,409	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL .	18,820,346	1,225	992	1,745	4,163	9,897	9,635	14,749	9,661	3,009	1,520	392	121	57,109

STATEMENT No. XI.—*Showing the deaths from* CHOLERA *in the Districts of* LOWER BURMA *during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Akyab . . .	414,479	14	7	8	12	69	76	17	41	7	1	...	9	261
Kyaukpyu . .	163,832	...	...	...	19	...	...	...	...	...	...	...	...	19
Sandoway . .	77,134	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon . .	180,324	24	2	41	11	5	3	11	5	8	4	11	22	147
Hanthawaddy .	396,887	22	24	16	61	24	10	14	11	1	28	2	10	223
Pegu . .	237,594	54	15	65	98	51	93	34	45	...	...	...	...	455
Tharrawaddy . .	347,454	12	2	162	51	73	46	281	235	151	17	57	26	1,113
Prome . . .	360,252	...	4	47	19	16	99	246	144	59	12	2	...	648
Thongwa . .	333,443	62	284	375	293	276	91	52	16	10	3	7	1	1,470
Bassein . . .	290,466	...	14	71	178	142	83	39	22	...	...	...	1	550
Henzada . . .	438,131	28	238	129	26	21	60	98	80	44	19	1	11	755
Myaungmya . .	217,878	4	81	179	371	213	21	120	58	9	28	14	13	1,111
Amherst . . .	233,539	...	30	144	147	77	2	5	...	...	...	2	...	407
Tavoy . . .	94,921	...	...	...	...	...	...	...	...	...	...	...	...	...
Mergui . . .	73,748	...	...	...	...	...	...	...	...	...	...	...	...	...
Thaton . . .	266,620	9	11	105	77	125	46	11	...	1	...	...	...	385
Toungoo . .	184,434	26	9	11	34	20	14	81	63	9	...	1	1	269
Thayetmyo . .	194,637	...	12	162	63	6	70	318	75	17	...	...	...	725
TOTAL .	4,314,773	255	733	1,515	1,462	1,115	714	327	795	316	112	97	94	8,538

Appendix A to Section VI.—*concluded.*

STATEMENT NO. XII.—*Showing the deaths from CHOLERA registered in the Districts of AJMERE-MERWARA during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Ajmere . . .	422,359	...	...	...	...	6	1	1	9	1	1	...	...	19
Merwara . .	119,999	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL .	542,358	...	...	...	...	6	1	1	9	1	1	...	...	19

STATEMENT NO. XIII.—*Showing the deaths from CHOLERA registered in the Districts of MYSORE and COORG during each month of 1897.*

DISTRICT.	Population.	NUMBER OF CHOLERA DEATHS REGISTERED IN EACH MONTH.												Total of the year.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
MYSORE.														
Bangalore . .	702,913	12	11	12	1	4	...	16	3	4	1	2	...	66
Kolar . . .	591,030	3	...	3	...	...	...	...	44	13	5	...	1	69
Tumkur . . .	580,786	5	13	...	70	10	3	...	8	147	37	12	...	305
Mysore . . .	1,181,814	548	347	247	260	491	319	183	34	...	...	9	2	2,440
Hassan . . .	514,952	59	1	4	87	147	125	61	13	51	69	27	...	644
Shimoga . .	527,981	...	...	27	...	...	...	...	39	116	141	70	14	407
Kadur . . .	330,063	...	...	...	...	...	...	...	42	97	48	34	2	223
Chitaldroog . .	413,984	...	...	...	...	...	...	...	...	53	40	1	...	94
TOTAL .	4,843,523	627	372	293	418	652	447	260	183	481	341	155	19	4,248
COORG.														
Coorg . . .	173,055	...	...	...	...	41	54	5	6	...	...	...	...	106
GRAND TOTAL .	5,016,578	627	372	293	418	693	501	265	189	481	341	155	19	4,354

Appendix B to Section VI.

Statement showing the number of attendants on Cholera cases treated in the Hospitals of European and Native Regiments and in Jails during 1897, and the number of these attacked by cholera.

No.	Station.	Community.	Number of cases of cholera treated.	Medical Officers, Hospital Assistants, and other attendants on cholera cases.	
				Number.	Number of these attacked with cholera.
		European Troops.			
1	Meiktila	1 E. Lancashire Regiment	1	9	None.
2	Calcutta	1st Gloster Regiment	1	11	"
3	Ditto (Fort Fulta)	1 E. D., R. A.	1	7	"
4	Muttra	Station Hospital	2	6	"
5	Ditto	Ditto	7	8	"
6	Cawnpore	Ditto	2	12	"
7	Lucknow	European Garrison	3	20	"
8	Fyzabad	2nd Royal Sussex Regiment	1	8	"
9	Fort Allahabad	Station Hospital	2	19	1
10	Allahabad	A. M. S. and 1st Norfolk	1	9	None.
11	Jhansi	Station Hospital	4	28	"
12	Sitapur	1st King's Shropshire L. I.	69	31	"
13	Jubbulpore	17th Field Battery, R. A.	1	About 7	"
14	Delhi	1st Bn. Dorset Regiment	1	4	"
15	Umballa	Station Hospital	3	6	"
16	Mian Mir	1st Bn., Northamptonshire Regiment	1	4	"
17	Rawalpindi	Station Hospital	1	5	"
18	Belgaum	1st Bn. East Yorkshire Regiment	5	11	"
19	Bellary	45th Field Battery, R. A.	1	5	"
20	Secunderabad	Station Hospital	4	14	"
21	Deolali	Ditto	4	About 10	"
22	Kampti	Ditto	1	7	"
23	Nusseerabad	British Corps	4	6	"
24	Kirkee	British Troops	7	12	"
25	Poona	Station Hospital	1	10	"
		Total	128	269	1
		Native Troops.			
1	Alipore	5th Regiment B. L. I.	1	5	None.
2	Agra	2nd (Q. O.) B. L. I.	3	12	"
3	Allahabad	3rd Regiment, B. I.	5	6	"
4	Ditto	8th B. Cavalry Lines	4*	Not stated.	
5	Jhansi	1st Bengal Infantry	4	About 7	None.
6	Kampti	7th M. I.	1	7	"
7	Raipur	2nd Madras Infantry	8	18	1
8	Jubbulpore	14th Bengal Lancers (Detachment)	1†	5	None.
9	Mhow	20th Bombay Infantry	1	5	"
10	Bhuj	17th ditto ditto	3	7	"
11	Ahmednagar	9th ditto ditto	1	6	"
12	Satara	3rd Bombay Light Infantry	2	5	"
13	Kirkee	Bombay Sappers and Miners	4	8	"
14	Poona	2nd Bombay Lancers	2	5	"
15	Sirdarpore	Malwa Bhil Corps	8	20	2
16	Sirur	4th Bombay Cavalry	9	10	None.
17	Sehore	Bhopal Battalion	2	14	"
18	Secunderabad	Detachment of Q. O. Sappers and Miners and Department Followers' Hospital.	7	11	"
19	Ditto	H. M.'s 19th Regiment M. I.	2	7	"
20	Ditto	3rd Madras Lancers	6	9	"
21	Ditto	3rd Regiment M. L. I.	4	3	"
22	Ditto	11th M. I.	5	8	"
23	Aurangabad	3rd Lancers, H. C.	8	11	"
24	Ditto	4th Infantry, H. C.	3	9	"
25	Hingoli	1st Infantry, H. C.	2	5	"
26	Ditto	4th Lancers, H. C.	35	About 102	1
27	Jalna	6th Infantry, H. C.	2	5	None.
28	Bolarum	2nd Lancers, H. C.	5	16	1‡
		Carried over	134	326	5

* Not included in the total. † European officer. ‡ Sweeper.

Appendix B to Section VI—*continued.*

Statement showing the number of attendants on cholera cases treated in the Hospitals of European and Native Regiments and in Jails during 1897, and the number of these attacked by cholera—continued.

No.	Station.	Community.	Number of cases of cholera treated.	Medical Officers, Hospital Assistants, and other attendants on cholera cases.	
				Number.	Number of these attacked with cholera.
		Brought forward .	134	326	5
		Native Troops—continued.			
29	Mominabad . . .	1st Lancers, H. C.	4	12	None.
30	Bangalore . . .	1st Madras Pioneers . . .	1	7	"
31	Pallaveram . . .	28th M. I. (Detachment) . . .	2	7	"
32	Bellary . . .	9th Regiment M. I.	1	7	"
33	Ditto . . .	1st Madras Lancers	13	16	"
34	Ditto . . .	2nd ditto ditto	1	5	"
35	St. Thomas' Mount .	14th M. I.	1	6	"
36	Berhampore . . .	22nd M. I.	12	7	"
37	Ootacamund . .	4th Madras Pioneers	1	5	"
38	Trichinopoly . .	23rd Regiment, W. L. I. . . .	1	9	"
39	Belgaum . . .	26th M. I.	3	11	"
40	Mandalay . . .	30th B. M. I.	1	7	"
41	Maymyo . . .	10th B. G. R.	3	9	"
42	Moulmein . . .	29th M. I.	1	9	"
43	Shillong . . .	42nd Gurkha Rifles	3	6	"
		Total .	182	449	5
		Jails.			
1	Prome . . .	Jail	4	4	None.
2	Ditto . . .	"	1	3	"
3	Bassein . . .	"	3	11	"
4	Minbu . . .	"	14	13	"
5	Shwegyin . . .	"	3	8	"
6	Pakokku . . .	"	2	12	"
7	Toungoo . . .	"	4	8	"
8	Paungde . . .	"	1	5	"
9	Meiktila . . .	"	1	3	"
10	Akyab . . .	"	1	3	"
11	Moulmein . . .	"	63	17	1
12	Myingyan . . .	"	13	12	1*
13	Golaghat . . .	Lock-up	5	11	3
14	Dhubri . . .	Jail	2	9	None.
15	Goalpara . . .	"	5	9	"
16	Dibrugarh . . .	"	2	3	"
17	Sylhet . . .	"	1	8	"
18	Gauhati . . .	"	8	4	"
19	Netrakona . . .	Sub-jail	1	7	"
20	Bettiah . . .	"	5	2	"
21	Midnapore . . .	Jail	3	About 6	"
22	Alipore . . .	"	4	9	"
23	Krishnagar . . .	"	1	4	"
24	Dinagepur . . .	"	2	7	"
25	Purulia . . .	"	4	9	"
26	Dacca . . .	"	1	5	"
27	Bogra . . .	"	1	4	"
28	Cuttack . . .	"	6	13	"
29	Jamui . . .	Sub-jail	2	10	"
30	Suri . . .	Jail	1	4	"
31	Balasore . . .	"	1	4	"
32	Buxar . . .	Sub-jail	1	6	"
33	Kurigram . . .	"	1	6	"
34	Dumka . . .	Jail	3	10	"
35	Hazaribagh . . .	"	26	15	"
36	Deoghar . . .	Sub-jail	6	9	"
37	Gobindpur . . .	"	1	2	"
38	Rajmehal . . .	"	4	6	"
39	Chittagong . . .	Jail	1	9	"
40	Daltonganj . . .	"	4	11	"
41	Ditto . . .	"	13	20	"
		Carried over .	225	321	5

* Sweeper.

Appendix B to Section VI—*concluded.*

Statement showing the number of attendants on cholera cases treated in the Hospitals of European and Native Regiments and in Jails during 1897, and the number of these attacked by cholera.

No.	Station.	Community.	Number of cases of cholera treated.	Medical Officers, Hospital Assistants, and other attendants on cholera cases.	
				Number.	Number of these attacked with cholera.
		Brought forward .	225	321	5
		Jails—continued.			
42	Barisal . . .	Jail	1	8	None.
43	Ranchi . . .	„	15	69	2
44	Agra . . .	„	1	5	None.
45	Saharanpur . . .	„	1	4	„
46	Orai . . .	„	29	14	1
47	Mirzapore . . .	„	2	5	None.
48	Jaunpore . . .	„	3	5	„
49	Cawnpore . . .	„	2	9	„
50	Azumgarh . . .	„	3	7	„
51	Gorakhpur . . .	„	1	7	„
52	Rai Bareli . . .	„	5	8	2†
53	Fyzabad . . .	„	3	23	None.
54	Hamirpur . . .	„	2	12	„
55	Hardoi . . .	„	1	4	„
56	Mainpuri . . .	„	3	About 5	„
57	Chunar . . .	„	7	5	„
58	Allahabad . . .	„	5	6	„
59	Lucknow . . .	„	13	About 9	„
60	Fatehpur . . .	„	2	9	„
61	Kasia . . .	Sub-jail	1	9	„
62	Aurangabad . .	„	1	4	„
63	Bilaspur . . .	Jail	19	31	1
64	Mandla . . .	„	6	7	None.
65	Betul . . .	„	4	7	„
66	Sambulpur . . .	„	8	4	„
67	Balaghat . . .	„	4*	Not stated.	„
68	Seoni . . .	„	4	4	„
69	Nagpur . . .	„	5	4	1‡
70	Dhulia . . .	„	3	6	None.
71	Thana . . .	„	63	14	„
72	Byculla . . .	H. M.'s House of Correction . .	1	8	„
73	Cannanore . . .	Jail	3	6	1
74	Vellore . . .	„	22	24	None.
75	Coimbatore . . .	„	280	102	13
76	Berhampur . . .	„	7	9	None.
77	Vizagapatam . .	„	8	10	„
78	Palamcottah . . .	„	2	12	„
79	Russelkondah . .	„	4	4	„
80	Madras . . .	H. M.'s Penitentiary	1	6	„
81	Rajahmundry . .	Jail 1st outbreak	170	24	4
		„ 2nd ditto	3	10	None.
		„ 3rd ditto	29		
82	Madura . . .	Jail	2	7	„
		Total .	970	847	30
		GRAND TOTAL .	1,280	1,565	36

* Not included in the total. † Including one sweeper. ‡ Sweeper.

Appendix C to Section VI.

Statistics of Charitable Medical Relief in the different Provinces of India for the year 1897.

Province.	Number of Dispensaries.				Population, Census of 1891.	Area in square miles.	Total number of patients treated.	One Dispensary.		Cost of Medical Relief.			Remarks.
	1st class.	2nd class.	3rd class.	Total.				To population.	To area in square miles.	Direct contributions by Government.	Paid from local sources.*	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
										R	R	R	
Bengal	30	275	172	477	70,665,427§	144,408‖	2,834,112	148,146	303	83,787	8,06,416	8,90,202	
Assam	13	87	1	101	5,476,833	29,433‖	609,490	54,226	291	56,236	1,80,936	2,37,172	
North-Western Provinces and Oudh.	2	272	81	355†	46,905,085	107,777‖	3,692,416	132,127	304	3,01,863	4,59,725	7,61,588	
Punjab	6	250	9	265	20,860,913	110,463‖	3,293,924	78,720	417	27,281	5,04,304	5,31,586	
Central Provinces	6	80	35	121‡	11,904,465	71,582‖	1,526,659	98,384	592	50,762	1,15,164	1,65,925	
Berar	46	1	...	47	2,897,040	16,068‖	325,766	61,639	342	60,312	23,772	84,084	
Lower Burma	3	42	1	46	4,658,627	77,479‖	468,031	101,274	1,684	12,368	3,18,139	3,30,508	
Upper Burma	36	17	...	53	3,488,228	83,473¶	304,742	65,816	1,575	74,429	65,892	1,40,322	
Madras	14	430	26	470	34,336,196	124,943‖	4,092,551	73,056	266	91,703	9,57,902	10,49,605	
Bombay	41	166	105	312	26,694,594	124,130‖	1,742,804	85,559	398	3,42,657	3,57,855	7,00,512	
Coorg	...	2	5	7	173,055	1,583‖	51,802	24,722	226	7,884	8,583	16,467	
Total	197	1,622	435	2,254	228,060,463	891,339‖	18,942,297	101,180	395	11,09,282	37,98,688	49,07,971	

* Mainly by Municipalities and District and Local Boards, provision for which is made in the allotments from Provincial Funds. The differences in proportions between the entries in Columns 11 and 12 are due to different ways of contributing followed by the several Local Governments and Administrations: some contributing directly, others doing so by including their contributions in the grants to Local Bodies for general purposes from Provincial Funds.

† The number 355 includes 14 Private and 10 Mission Dispensaries, which are not included in Statements Nos. II, III, IV and V. They are separately shown in Statements Nos. VIII and IX.

‡ Including 26 Feudatory State Dispensaries.

§ This excludes the population of Calcutta.

‖ As given in the Sanitary Reports for 1897.

¶ As given in the Census Report of Burma for 1891.

Appendix D to Section VI.

ACT NO. III OF 1897.

PASSED BY THE GOVERNOR GENERAL OF INDIA IN COUNCIL.

(Received the assent of the Governor General on the 4th February, 1897.)

An Act to provide for the better prevention of the spread of Dangerous Epidemic Disease.

Whereas it is expedient to provide for the better prevention of the spread of dangerous epidemic disease; It is hereby enacted as follows:—

Short title, extent and commencement.

1. (*1*) This Act may be called the Epidemic Diseases Act, 1897.

(*2*) It extends to the whole of British India (inclusive of Upper Burma, British Baluchistan, the Santal Parganas and the Pargana of Spiti); and

(*3*) It shall come into force at once.

Power to take special measures and prescribe regulations as to dangerous epidemic disease.

2. (*1*) When at any time the Governor General in Council is satisfied that India or any part thereof is visited by, or threatened with, an outbreak of any dangerous epidemic disease, the Governor General in Council, if he thinks that the ordinary provisions of the law for the time being in force are insufficient for the purpose, may take or require or empower any person to take such measures and, by public notice, prescribe such temporary regulations to be observed by the public or by any person or class of persons as he shall deem necessary to prevent the outbreak of such disease or the spread thereof, and may determine in what manner and by whom any expenses incurred (including compensation, if any) shall be defrayed.

(*2*) In particular and without prejudice to the generality of the foregoing provisions, the Governor General in Council may take measures and prescribe regulations for—

(*a*) the inspection of any ship or vessel leaving, or arriving at, any port in British India and such detention thereof, or of any person intending to sail therein or arriving thereby, as may be necessary; and

(*b*) the inspection of persons travelling by railway or otherwise and the segregation, in hospital, temporary accommodation or otherwise, of persons suspected by the inspecting officer of being infected with any such disease.

(*3*) The Governor General in Council may, by general or special order, direct that all or any of the powers conferred by this Act may also be exercised by any Local Government with respect to the territories administered by it.

Penalty.

3. Any person disobeying any regulation or order made under this Act shall be deemed to have committed an offence punishable under section 188 of the Indian Penal Code. XLV of 1860.

Protection to persons acting under Act.

4. No suit or other legal proceeding shall lie against any person for anything done or in good faith intended to be done under this Act.

Notification No. 302, dated Calcutta, the 4th February 1897.

Whereas certain parts of India are visited by, and others threatened with, an outbreak of dangerous epidemic disease known as bubonic plague, the Governor General in Council, in exercise of the powers conferred by section 2, sub-section (*3*) of the Epidemic Diseases Act, 1897, is pleased to direct that the powers conferred by the said Act may be exercised by Local Governments with regard to their respective territories as follows:—

(*a*) all the said powers by the Governors of Fort St. George and Bombay in Council, the Lieutenant-Governor of Bengal, and the Chief Commissioner Burma;

(*b*) the powers conferred by section 2, sub-section (*1*), and sub-section (*2*), clause (*b*), by the Lieutenant Governor of the North-Western Provinces and Chief Commissioner of Oudh, the Lieutenant Governor of the Punjab, and the Chief Commissioner of the Central Provinces; and

(*c*) the powers conferred by section 2, sub-section (*2*), clause (*b*), by the Chief Commissioners of Assam, Coorg, and British Baluchistan.

J. P. HEWETT,

Secretary to the Government of India.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

Vaccination in India as a whole.

234. The total number of vaccinations performed among the civil populations in all the provinces of India, during 1897-98, was 7,829,983, as compared with 8,019,836 in 1896-97. The decrease in the number of operations was confined to Bombay, the North-Western Provinces and Oudh, the Punjab and the Central Provinces, where the working of the department was hindered and embarrassed by the conditions arising from the presence of famine or plague or both. In the remaining provinces there was a marked increase in the number of operations as compared with the previous year.

Of the total number of operations performed, 7,209,794 were primary, of which 6,771,664, or 93·92 per cent., were successful; and 620,189 were cases of revaccination, of which 399,823, or 64·47 per cent., succeeded.

In the operations performed by the special vaccination staff—as distinguished from operators at dispensaries, the percentages of success in primary operations varied between 98·98 in Assam, and 91·90 in Bombay. This amount of variation is, perhaps, not greater than might be expected; but in revaccination the divergence between the percentages of success reported is extreme, ranging from 92·05 in Assam, to 30·0 in Berar. Here the difference is so great as to suggest the explanation that the standard by which success is gauged must be varying, so that what would be reckoned a failure in Berar might be returned in Assam as a success.

The average number of operations performed by each vaccinator was 1,168, ranging from 2,847 in Berar, to 650 in Bengal.

In the operations performed by the staffs of dispensaries, the highest ratios of success in both primary cases and revaccinations were obtained in Assam, 97·66 and 79·90 per cent., respectively, and the lowest in both in Coorg, 73·60 and 32·43 per cent.

Excepting in Madras, Bengal, Assam and Burma, the amount of protection afforded to the infant population was less than in 1896-97. The total number of children under one year of age successfully vaccinated was 2,815,592, against 2,903,167 in the preceding year; the percentage protected, estimated on a hypothetical birth-rate of 40 per thousand of the census population, ranging from 63·4 in Berar, to 17·8 in Bengal and 13·10 in Coorg.

The number of children, between one year of age and six years, who were successfully vaccinated was 3,172,881, against 3,237,849 in 1896-97. The proportion of persons successfully vaccinated per thousand of the population was, however, greater than in the preceding year in all the provinces, except Bombay, the North-Western Provinces and Oudh, the Punjab and the Central Provinces.

The aggregate cost of the special establishments in the different provinces was R11,06,845, against R11,41,219 in 1896-97. The average cost of each successful operation was two annas and six pies, and ranged from six annas and ten pies in Bombay, to one anna and three pies in Bengal.

The following statement shows in outline the comparative working of the vaccination department in the different provinces in 1896-97 and 1897-98 :—

Comparative statement of vaccination in the different Provinces of India, excluding Ajmere-Merwara, in 1896-97 and 1897-98, together with the death-rates from Small-pox during 1896 and 1897.

Provinces.		Population.	Number of vaccinations performed.			Percentage of successful cases.		Persons successfully vaccinated per mille of population.	Rates of death from small-pox per 1,000 of population during the calendar years 1896 and 1897.	Average number of vaccinators employed in Department.*	Average number of operations per vaccinator.*
			Primary.	Re-vaccinations.	Totals.	Primary.	Re-vaccinations.				
Bengal	1896-97	71,953,585	2,223,128	70,527	2,293,655	97·92	52·60	31·16	·28	3,478	622
	1897-98	70,832,144	2,243,093	76,443	2,319,536	97·87	64·37	31·69	·27	3,383	650
Assam	1896-97	5,634,258	259,827	7,525	258,422	97·47	93·10	44·65	1·09	227	1,103
	1897-98	5,634,258	272,707	11,207	283,914‡	98·27	90·96	49·62	1·08	222	1,065
North-Western Provinces and Oudh	1896-97	47,146,033	1,443,731	84,747	1,528,478	90·72	61·89	28·89	·91	878	1,740
	1897-98	47,146,033	1,318,912	66,093	1,385,005	89·66	63·47	25·97	1·86	866	1,599
Punjab	1896-97	20,724,940	673,078	229,335	902,413	93·22	59·76	36·89	2·19	303	2,959
	1897-98	20,724,940	633,015	214,284	847,299	94·37	60·75	35·10	0·78	305	2,778
Central Provinces	1896-97	12,228,289	367,821	45,988	413,809	95·99	77·48	31·79	0·82	269	1,519
	1897-98	12,044,805	347,210	51,489	398,699	96·67	87·70	29·42	0·38	274	1,391
Berar	1896-97	2,897,040	98,504	21,717	120,311	96·89	30·55	34·51	·3	44	2,729
	1897-98	2,897,040	95,048	30,241	125,289	96·4	30·0	34·7	·2	44	2,847
Burma	1896-97	8,146,855	396,132	27,116	423,248	92·41	58·01	46·86	·35	161	2,629
	1897-98	8,146,855	405,469	26,081	431,550	94·56	59·74	48·97	·41	167	2,586
Madras	1896-97	35,651,577	1,173,131	74,589	1,247,720	90·56	74·73	31·96	0·3	834	1,465
	1897-98	35,651,577	1,189,146	82,583	1,271,729	89·75	74·97	31·67	0·7	824	1,508
Bombay	1896-97	22,701,042	734,237	70,750	804,987	92·18	58·86	31·65	0·34	437	1,834
	1897-98	22,701,042	679,234	60,196	739,430	91·77	58·49	29·0	0·20	435	1,690
Coorg	1896-97	173,055	9,080	1,431	10,511	95·02	82·95	56·72	0·10	9	1,112
	1897-98	173,055	9,480	1,497	10,977	95·21	85·03	59·51	0·34	8	1,180
Total	1896-97	226,357,505	7,369,819	633,725	8,003,554	94·12	61·26	32·36	·62†	...	...
	1897-98	226,852,649	7,193,314	620,114	7,813,428	93·91	64·47	31·54	·75†	...	...

* Refers to Special Vaccination Establishment only.
† Calculated on figures taken from Sanitary Reports.
‡ Including Tea Gardens.

Animal Vaccination.

235. The following paragraphs, which deal with the details of vaccination in the different provinces, show how rapidly bovine lymph is taking the place of humanized lymph in the protection of the masses in India.

Calf lymph is used fresh—calf-to-arm, preserved in tubes without admixture, or mixed with glycerine, lanoline or vaseline.

The use of the vaseline admixture has, it seems, been confined to the Punjab. The ratio of success obtained with it was high, but the length of time it had been kept, and the degree of temperature to which it had been exposed, are not noted; while it is observed that the proportion of cases in which the results were unknown is large.

In most provinces lanolinated lymph seems to be the favourite preparation. In Madras glycerinated and lanolinated lymph were both used, and the former was found generally to be the more efficient preparation, as the following statement indicates:—

		Glycerinated lymph.		Lanolinated lymph.	
		Number of cases.	Percentage of success.	Number of cases.	Percentage of success.
In districts .	Primary and secondary operations	592,203	88·5	89 806	87·1
	Revaccinations .	29,291	79·7	2,060	62·2
Operations performed by dispensary staff.	Total cases .	14,807	81·6	3,693	78·4
Operations in municipalities.	Total cases .	46,974	91·0	13,512	88·4

The bacteriology of bovine lymph has received much attention in European laboratories. Results in respect of the number and nature of the germs which may be present are conflicting, but there seems to be no doubt that glycerine destroys most, if not all, of them. Practically, however, it seems that danger is to be feared much more from dirty instruments, failure to cleanse the skin at the site of operation, and neglect of the vesicles, than from any germ likely to be found in lymph which has been carefully cultivated, collected and conserved.

A valuable paper on glycerinated calf lymph has been contributed by Dr. F. R. Blaxall to the Report of the Medical Officer of the Local Government Board, 1897-98. Of special importance are the following questions, which he set himself to answer—"What are the best methods to adopt (*a*) in vaccinating the calf, (*b*) in collecting the material, (*c*) in glycerinating it, and (*d*) in storing it." Dr. Blaxall's replies will be found in the extract from his paper, which is printed as Appendix C to this Section.

Bengal.

236. During the official year 1897-98, the supervising staff of the Vaccination Department in Bengal comprised the Sanitary Commissioner, three Deputy Sanitary Commissioners, 48 District Civil Surgeons, 206 Native Inspectors and 14 Head Vaccinators; while the operating staff consisted of 85 Vaccinators paid by Government, 58 paid by District Boards, 245 employed by Municipalities or in connection with dispensaries, 3240 men who are licensed to vaccinate for fees, and 1,101 Apprentices, a net decrease of 30 operators as compared with 1896-97. For the greater part of the year, however, the supervising staff were deprived of the services of two Deputy Sanitary Commissioners, as these officers had to be temporarily recalled to military duty on account of the strain on the military medical services during the disturbances on the frontier.

The aggregate number of operations performed by all agencies in the province was 2,319,536, as compared with 2,293,655 in the previous year, an increase which under all the circumstances of the province is certainly satisfactory. The increase was distributed over 27 districts, but in the remaining 22 and in Calcutta, there was a decrease, which was most conspicuous in Chittagong, Shahabad, Noakhali, Dacca, Bankura and Mymensingh. In Chittagong the decrease is attributable to the effects of the terrible cyclone which swept across the district in October 1897; and in Mymensing the falling off is ascribed to difficulty in getting about the district from the effect of the earthquake of June 1897 and floods. Elsewhere the decrease is ascribed to various general and local causes, such as the prevailing scarcity, emigration of the people and the presence of small-pox. The occurrence of small-pox, as pointed out by Major Dyson, should be a stimulus to vaccination rather than a hindrance, but in places such as the tributary States of Chota Nagpur, where the people are very ignorant, vaccination may, it appears, be entirely suspended during an outbreak of small-pox, the people refusing to be vaccinated and preferring to rely on the performance of *pujas* to avert the disease.

Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·13	14·79	1888 . .	0·09	29·51
1878 . .	0·20	18·95	1889 . .	0·13	28·79
1879 . .	0·38	30·41	1890 . .	0·19	28·64
1880 . .	0·38	34·81	1891 . .	0·23	22·63
1881 . .	0·40	30·06	1892 . .	0·31	24·52
1882 . .	0·20	28·38	1893 . .	0·20	24·54
1883 . .	0·14	27·38	1894 . .	0·11	27·98
1884 . .	0·28	28·94	1895 . .	0·18	29·67
1885 . .	0·14	25·76	1896 . .	0·19	29·62
1886 . .	0·06	29·68	1897 . .	0·27	30·25
1887 . .	0·05	30·41			

* The ratios of successful vaccinations refer to official year (April to March).

The number of successful primary operations was 2,195,509, or 18,694 more than in the previous year, but the proportion of success was slightly less; in 1896-97 the percentage of operations successful was 97·91, in 1897-98 it fell to 97·87. This falling off is only apparent, being due to the inclusion as failures of cases the results of which were unknown in calculating the ratios.

The total number of revaccinations performed during the year was 76,443, nearly six thousand more than in 1896-97. Of these, 64·36 per cent. were successful, against 52·59 in the previous year. The high degree of success is ascribed to the revaccination of numerous adults in whom the protective effect of primary vaccination in infancy was disappearing.

Estimating the number of births at 40 per thousand of the census population, 17·8 per cent. of the infants born were protected, against 17·6 per cent. in 1896-97, 14·7 in 1895-96, and a mean of 12·8 in the three years 1892-93 to 1894-95.

Of the different agencies employed, Government and licensed vaccinators did more work than in the previous year, the average numbers of operations performed by each man rising from 441 and 621, to 1,088 and 640; but district board and municipal vaccinators did less work, their averages falling from 979 and 532, respectively, in 1896-97, to 964 and 480 in 1897-98.

No inspection was done by Deputy Sanitary Commissioners on account of their absence on duty in connection with plague and their recall to military employment. An Assistant Surgeon, who was in charge of the Western Bengal Circle during part of the year, verified 4,227 operations in Manbhum and

Chota Nagpur, about ·18 per cent. of the total number of operations. The proportion inspected by Civil Surgeons fell from 9·56 in 1896-97, to 9·34. The number of cases verified by Civil Surgeons was upwards of 10,000 in five districts, as compared with four in the previous year, including Muzaffarpur and Dacca, where Major Peck and Lieutenant-Colonel Macrae each verified upwards of 15,000 operations! In nine districts, as compared with 13 in 1896-97, the numbers verified were between 10,000 and 5,000; in 29 districts between 5,000 and 1,000, and in five districts the number was less than 1,000. The percentages of inspections by District Inspectors and Sub-Inspectors rose from 38·47 and 65·34, respectively, to 40·76 and 67·44 in 1897-98.

There was no change in the method of vaccination in use in the province, but orders were about to issue prescribing three punctures in each arm instead of two. Vaccination with lymph taken direct from the calf is extending, and there was an increase, as compared with 1896 97, of 25,681 primary operations, and 5,228 re-vaccinations by this method, which is about to be introduced into all districts where the prejudices of the people are not such as to render the introduction inexpedient in the present state of public feeling on account of the measures which are necessary against plague.

As compared with the previous year, there was a slight falling off in the amount of lanoline paste manufactured at Calcutta, but there was a considerable increase at Darjeeling. Five hundred and sixty-four grains of lanoline paste were supplied to the Nipal Darbar from the Darjeeling depot.

The total cost of the Department fell from R2,06,205 in 1896-97, to R1,81,480, and the cost of each successful case from one anna and five pies to one anna and three pies. The great drop in the total cost was mainly due to the temporary absence of the Deputy Sanitary Commissioner, and to the substitution of licensed for paid men in Angul.

Assam.

237. The vaccination staff of the province consisted of 18 Native Inspectors, 182 paid Vaccinators, 30 licensed Vaccinators and 10 Apprentices.

The number of operations performed by them rose from 250,350 in 1896-97, to 255,583, but the average number of operations per vaccinator fell from 1,103 to 1,065. Of the total, 245,381 were primary vaccinations and 10,202 were cases of revaccination, the percentages of success claimed being, respectively, 98·98 and 92·05, against 97·58 and 94·25 in 1896-97. These ratios, even though supported in respect of primary cases by the verifications of Civil Surgeons, are, of course, suspiciously high; and, during his tour in the Nowgong District, the Sanitary Commissioner found that, while the work was really

Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population *	Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population. *
1877 . .	0·3	4·51	1888 . .	0·45	25·38
1878 . .	0·3	6·42	1889 . .	0·49	24·49
1879 . .	0·37	8·00	1890 . .	0·31	26·92
1880 . .	0·59	5·27	1891 . .	0·47	29·93
1881 . .	0·69	8·91	1892 . .	0·29	31·51
1882 . .	0·71	10·53	1893 . .	0·53	28·33
1883 . .	1·36	15·19	1894 . .	0·80	28·09
1884 .	1·06	18·67	1895 . .	0·77	40·45
1885 . .	0·44	22·31	1896 . .	1·08	43·31
1886 . .	0·12	24·04	1897 . .	1·08	44·77
1887 . .	0·26	24·01			

* The ratios of successful vaccinations refer to official year (April to March).

excellent, the results in some of the comparatively small number of cases seen by him were unsuccessful.

The Chief Commissioner, writing of inspections by Civil Surgeons, observes that "there is reason to believe that in many instances the results of these inspections are misleading, only successful cases having been brought before the Civil Surgeons for examination." Further instructions have been issued to secure that the work done by vaccinators shall be more effectively tested in future.

There was a great increase in the number of operations performed by Civil Surgeons and subordinates attached to dispensaries, the number rising from 8,072 in 1896-97, to 17,177 in 1897-98. Of these 16,172 were primary cases, of which 97·66 per cent. proved successful, and 1,005 were revaccinations, of which 79·9 per cent. succeeded. The ratios of success obtained in the previous year were, respectively, 94·26 and 76·35 per cent.

The number of operations performed by tea-garden agencies was 11,154, or 5,120 less than in 1896-97. All were primary cases, and 95·88 per cent. were successful.

During the year the Compulsory Vaccination Act was introduced into the Nowgong Municipality, raising the number of towns, cantonments, etc., in which the Act is in force to 13. Notwithstanding this extension, the total number of operations performed in the areas of compulsory vaccination was less than in any of the preceding three years; the number in 1897-98 having been 3,487, against 4,152 in the previous year. Nearly six hundred notices were issued under the Act, and 25 prosecutions were instituted, but in only two instances were the defaulters punished.

The number of infants protected was 25·9 per cent. of the births, estimated at 40 per mille of the census population, as compared with 20·4 in 1896-97, 20·9 in 1895-96, and 17·6, the mean of the three years 1892-93 to 1894-95.

Omitting the operations performed by the tea-garden agencies, 8·87 per cent. of the remaining operations were verified by Civil Surgeons, and 55 per cent. by Native Superintendents or other inspecting officers; the percentage of cases found successful by the former was 98·66, and by the latter 98·14.

Inoculation continues to be practised in Sylhet, Cachar and Lakhimpur. The Civil Surgeons of Sylhet and Cachar state that no outbreak of small-pox was traced to the practice; but the Inspector of Vaccination in Lakhimpur, who was sent to investigate an outbreak in the village of Kathalguri, "gave reasons for supposing that the outbreak took its rise from persons who had been recently inoculated."

The working of the bovine lymph depot at Shillong continued satisfactory, and the lymph supplied throughout the season was reported by Civil Surgeons to be of excellent quality. With the exception of 3,277 successful operations in Sylhet and 7 in Goalpara, performed by the arm-to-arm method, all the operations in the province were done with lymph prepared in Shillong. Endeavours were made at the head-quarter stations of districts to carry on vaccination with fresh calf lymph, but the attempts were abandoned on account of the difficulty in obtaining calves and of the strong prejudice of the people. The Chief Commissioner, however, believes that with the exercise of tact and perseverance these difficulties might be overcome; but in view of the great success obtained with the preparation prepared at Shillong, the introduction of the calf-to-arm method does not seem to be necessary.

Owing to the addition of seven paid Vaccinators and four Apprentices to the establishment, the expenditure on the department rose from R21,724 in 1896-97 to R22,346 in 1897 98, and the cost of each successful operation from one anna and six pies, to one anna and eight pies.

North-Western Provinces and Oudh.

238. The vaccination staff under the control of the Sanitary Commissioner of these provinces comprised 865 operators under the supervision of two Deputy Sanitary Commissioners, 46 Civil Surgeons and 50 Assistant Superintendents of Vaccination.

Owing to the absence of a considerable number of the supervising staff and operators who were deputed to plague duty, to the lower birth-rate of the year, and to the unfitness of many children for operation due to their reduced condition on account of famine, the total number of operations fell from 1,527,308 in 1896-97, to 1,384,660 in 1897-98, and the average number performed by each vaccinator from 1,739 to 1,599.

Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·84	19·40†	1888 .	0·56	15·14
1878 . .	3·99	14·74	1889 . .	1·00	16·09
1879 . .	1·72	12·42	1890 . .	1·26	19·48
1880 . .	0·19	12·93	1891 . .	0·56	19·10
1881 . .	0·39	15·59	1892 . .	0·16	20·34
1882 . .	0·00	13·69	1893 . .	0·13	25·38
1883 . .	3·14	12·94	1894 . .	0·09	26·81
1884 . .	4·59	12·88	1895 . .	0·04	28·47
1885 . .	0·33	13·50	1896 . .	0·91	28·87
1886 . .	0·24	14·05	1897 . .	1·86	25·97
1887 . .	0·19	14·93			

* The ratios of successful vaccinations refer to official year (April to March).
† Excluding Oudh.

Of the total number of operations, 1,318,615 were primary and 66,045 were revaccinations, and the ratios of success obtained were, respectively, 93·74 and 68·20 per cent. Medical subordinates attached to dispensaries performed 297 primary operations and 48 revaccinations, of which 90·46 per cent. of the former and 60·00 of the latter succeeded.

The number of infants successfully vaccinated by all agencies was 551,296, or 27,094 fewer than in the previous year. About 29·23 per cent. of the infants born, estimated at 40 per mille of the population, were protected during the year, against 30·7 in 1896-97, 30·2 in 1895-96, and 26·6 the average of the three years 1892-93 to 1894-95.

There was a considerable decline in the vaccination work performed in municipal towns, and the attention of Superintendents was again called to the necessity for the proper administration of the Act.

The Deputy Sanitary Commissioners and Civil Surgeons were so fully occupied with duties in connection with the prevention of plague that they had little time to devote to the inspection of vaccination, and it is satisfactory, in view of the circumstances, that they were able to verify 6·31 per cent. of the operations. Native Superintendents verified 26·98 per cent. of the operations, and found 91·74 per cent. of the cases seen by them to have been successful, against 90·92 per cent. found successful by the Deputy Sanitary Commissioners and Civil Surgeons.

The supply of lymph from the hills was generally sufficient and satisfactory. The establishment of a depot at Muktesar had to be postponed in favour of more urgent work, but the scheme is ready and complete. The depot at Lucknow was satisfactorily worked.

There was a decrease in the expenditure on vaccination from Provincial, Local and Municipal funds, the total falling from R1,44,646 in 1896-97, to

R131,243 in 1897-98, but the average cost of each successful case was the same in both years, namely, one anna and eight pies.

Punjab.

239. There was no change in the number of the supervising staff which, as in the previous year, consisted of the Sanitary Commissioner and his deputy, 31 Civil Surgeons 6 Divisional Inspectors, and 34 District and special Native Supervisors, but the Deputy Sanitary Commissioner and some of the Civil Surgeons were absent on plague duty for a great part of the year. The operators numbered 305, against 303 in 1896-97; 278 employed as district vaccinators, 21 employed by the special staff and 6 in cantonments.

There was a large falling off in the total number of operations performed, which aggregated 845,491, against 902,413 in the previous year. Primary operations were less by 41,304, revaccinations were less by 15,618. The decrease is attributed in part to high infantile mortality, and in part to failure of lymph and carelessness of the operators, the latter cause being largely effective because of the absence of the completer supervision of former years.

Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·70	2·70	1888 . .	0·90	40·84
1878 . .	2·30	21·23	1889 . .	0·42	40·13
1879 . .	2·83	17·34	1890 . .	0·47	37·15
1880 . .	0·52	21·41	1891 . .	0·17	33·24
1881 . .	0·38	35·02	1892 . .	0·54	33·25
1882 . .	0·34	25·15	1893 . .	0·20	37·72
1883 . .	0·64	31·08	1894 . .	0·30	35·48
1884 . .	0·87	28·68	1895 . .	0·41	37·41
1885 . .	0·40	29·93	1896 . .	2·19	36·65
1886 . .	0·57	30·52	1897 . .	0·78	35·04
1887 . .	0·87	32·36			

* The ratios of successful vaccinations refer to official year (April to March.)

The decrease of primary operations was common to the district and dispensary vaccinators, by whom 553,317 and 1,241 operations were performed, as compared with 596,686 and 3,737 in 1896-97. The numbers of operations performed by the special staff and cantonment vaccinators, however, rose from 67,780 and 4,875 in the previous year, to 72,031 and 5,185 in 1897-98. The Deputy Sanitary Commissioner, it must be noted, suspects that the returns furnished by the special staff have been exaggerated, as there was insufficient check on their work during the winter months. The number of revaccinations performed by all agencies fell off.

The quality of the work, as distinguished from the quantity, improved, the percentage of success in primary cases rising from 93·22 to 94·40, and in revaccinations from 59·76 to 60·77.

In the eight large native states which maintain their own vaccination establishments, the numbers of operations performed were 86,334 primary and 45,539 revaccinations, successful at the rates, respectively, of 95·47 and 50·52 per cent. Among these states the largest number of operations was performed in Patiala, where the total amounted to 98,674, with 96·18 per cent. of success in primary vaccinations and 50·16 in revaccinations, against 95·46 and 47·63, respectively, in 1896-97.

About 57·5 per cent. of the infants born, reckoned at 40 per mille of the census population, were successfully vaccinated, as compared with 58·5 in the previous year, 58·8 in 1895-96, and 52·4, the mean of the three years 1892-93 to 1894-95.

Civil Surgeons verified 8·66 per cent. of the primary operations and 2·25 per cent. of the revaccinations; Divisional Inspectors verified 17·94 per cent.

of the primary cases, and 25·85 per cent. of the re-vaccinations; and Native Supervisors inspected 61·10 and 23·73 per cent. of the primary and revaccination cases, respectively. It is observed that in all cases the inspecting officers found a higher rate of success than had been claimed by the vaccinators. This, while at first sight satisfactory, points to the selection by the operators of cases for inspection, and to the desirability of instituting test inspections where every case in a village would be examined, and not only a selected few.

Three kinds of lymph were in use, namely, humanized lymph, fresh calf lymph, and calf lymph mixed with vaseline. Of the primary operations about 83 per cent. were performed with fresh calf lymph, 11·5 per cent. with vaseline lymph, and 5·5 per cent. with humanized lymph. The fresh calf lymph was the most efficient, no less than 99·3 per cent. of the cases in which it was used being successful. Humanized lymph came next, with 98·2 per cent. of successes. The vaseline preparation was much inferior to the other two, and operations with it succeeded at the rate of 94·3 per cent. only. Of the revaccinations 76 per cent. were performed with fresh calf lymph, 13 per cent. with humanized lymph, and 11 per cent. with vaseline lymph. In these cases the humanized lymph proved the most effective with 78·7 per cent. successful; the vaseline lymph came next with 75·6 per cent.; and was closely followed by the fresh calf lymph, with 74·8 per cent. The comparative inefficiency of the vaseline lymph in primary operations is ascribed by the Deputy Sanitary Commissioner to its often having been kept some time before it was used.

The vaseline lymph was prepared at the Amritsar depot in the cold weather, and at the Murree depot in the hot weather. Altogether 2,850 ten-grain tubes were sent to the districts, and in 1,349 instances the results obtained with the contents were successful. The contents of only 62 tubes, all sent out from the Murree depot, failed; but the results attained were unknown in a very large number of cases, especially in respect of tubes prepared at Amritsar. There was a considerable decrease in the total cost of the Department, owing to the absence for about five months of the Deputy Sanitary Commissioner. The expenditure fell from R1,02,179 in 1896-97, to R98,508 in 1897-98, but the average cost of each successful case was the same in both years, namely, two annas and two pies.

Central Provinces.

240. The statistics of 1897-98 include the Native States of Sonepur and Bamra, excluded in 1896-97 in consequence of the non-receipt of returns from these States.

The inspecting staff in the Central Provinces remained unchanged, and comprised 19 Civil Surgeons and 28 Native Superintendents; but the average number of operators was 274, or 14 more than in 1896-97.

Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.	Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877	0·37	37·68	1888	1·22	37·51
1878	2·18	37·41	1889	1·99	34·87
1879	3·44	34·89	1890	0·26	37·94
1880	0·09	38·45	1891	0·08	38·25
1881	0·24	47·64	1892	0·10	34·25
1882	0·45	36·48	1893	0·17	33·78
1883	0·53	36·37	1894	0·16	36·58
1884	0·55	36·01	1895	0·70	34·83
1885	0·38	32·15	1896	0·82	30·56
1886	0·31	34·32	1897	0·38	28·39
1887	0·38	36·49			

* The ratios of successful vaccinations refer to official year (April to March).

The total number of operations was 384,476, or 12,560 fewer than in the previous year, and the average number

performed by each vaccinator fell from 1,519 to 1,391. The falling off in numbers, although common to the British districts and Feudatory States, was confined to primary operations, and was due to the reduced birth-rate and other consequences of famine, and to the temporary withdrawal of members of the vaccination establishment for employment in connection with the famine and the prevention of plague.

Of the 306,673 operations performed in British territory, 268,271 were primary and 38,402 were re-vaccinations, the percentages of success claimed being, respectively, 96·73 and 85·84, a slight increase in the case of the former and a very marked increase in the case of the latter, on the percentages of the previous year, which were 96·00 and 71·70. In the Feudatory States the total number of operations was 77,803, of which 65,622 were primary operations and 12,181 revaccinations, the ratios of success being 96·86 and 94·27 per cent., as compared with 97·20 and 96·01 in 1896-97.

There was a total decline of 2,550 operations as compared with the previous year in the work done by dispensary staffs. In British territory 10,998 primary operations and 848 revaccinations were done by them, the percentages of success being, respectively, 95·46 and 77·48. In the Feudatory States the number of primary operations performed by dispensary establishments was 2,319, of which 90·86 per cent. succeeded. Revaccination was limited to the State of Sarangarh, where 53 of 58 operations proved successful.

Estimating the birth-rate at 40 per mille of the census population, the percentage of children born who were protected was 36·20, against 47·5 in 1896-97, 49·3 in 1895-96, and 52·9, the mean of the three years 1892-93 to 1894-95. It must be remembered in this connection that there has for some years past been a declining birth-rate in the Central Provinces.

As compared with the previous year, there was an improvement in the work of inspection. About 18·79 per cent. of the operations were examined by Civil Surgeons, and 55·45 per cent. by Native Superintendents, as compared with 15·78 and 50·24, respectively, in 1896-97. The percentage of success found by Civil Surgeons was 92·40, and by Native Superintendents, 93·45, against 92·01 and 93·46 in the preceding year.

Fresh calf lymph, calf lymph mixed with lanoline, and humanized lymph were used. There is no considerable prejudice against the use of calf lymph in the Central Provinces, and the vast majority of the operations were performed with it, although it is not distinctly brought out in the report what numbers of cases were vaccinated with the fresh and stored calf lymph, respectively.

The total cost of the Department fell from R46,707 in 1896-97, to R46,148 in 1897-98, the increase due to an augmentation of the number of operators being more than counterbalanced by the reduction due to the temporary withdrawal of others. The cost of each successful case was, as in the preceding year, two annas.

241. The Vaccination Department under the control of the Sanitary Commissioner of Berar, comprised, as in the previous year, 44 operators under the supervision of seven Native

Berar.

Superintendents. The total number of operations performed was 125,289, or 5,178 more than in 1896-97, and the average number performed by each vaccinator was 2,847, against 2,729. The increase was due to revaccinations alone, the number of which rose from 21,717 in 1896-97, to 30,241. Primary operations numbered only 95,048, or 3,546 less than in the previous year, the falling off being satisfactorily explained by the high mortality among children. Primary operations were slightly less successful than in 1896-97, the percentage of success falling from 96·8 to 96·4; on the other hand, revaccinations were much more successful, the percentage rising from 20·5 to 30. Estimating the birth-rate at 40 per mille, about 63·4 per cent. of the infants born were protected, against 66·8 in 1896-97, 58·2 in 1895-96, and 60·9, the mean of the three years 1892-93 to 1894-95.

Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	2·9	35·6	1888 . .	0·3	36·6
1878 . .	2·7	20·8	1889 . .	0·7	35·40
1879 . .	0·03	28·30	1890 . .	0·1	36·8
1880 . .	0·02	31·70	1891 . .	0·01	36·0
1881 . .	0·1	30·8	1892 . .	0·02	37·
1882 . .	0·1	36·1	1893 . .	0·06	35·0
1883 . .	1·5	30·33	1894 . .	0·3	32·2
1884 . .	0·02	37·0	1895 . .	0·2	31·8
1885 . .	0·09	36·2	1896 . .	0·28	34·5
1886 . .	0·04	35·6	1897 . .	0·2	34·7
1887 . .	0·1	35·2			

* The ratios of successful vaccinations refer to official year (April to March).

The Sanitary Commissioner's inspections were limited to the Amraoti District, where 99·8 of the operations verified by him were successful. Native Superintendents verified 53·1 per cent. of all the operations, or 2·7 less than in the previous year, and found successful results in 94·3 per cent. Operations seem to have been performed exclusively with calf lymph, either fresh or lanolinated.

Lieutenant-Colonel Little gives an interesting table shewing the relation of vaccination to small-pox mortality in Berar since 1868-69, which, with his remarks on it, is reproduced.

Year.	Ratio per 1,000 successfully vaccinated.	Death-rate per 1,000 from small-pox.	Year.	Ratio per 1,000 successfully vaccinated.	Deate-rate per 1,000 from small-pox.
1868-69 . . .	4·3	1·9	1883-84 . . .	30·3	1·5
1869-70 . . .	3·2	3·6	1884-85 . . .	37·0	·2
1870-71 . . .	7·9	·6	1885-86 . . .	35·3	·09
1871-72 . . .	13·0	·2	1886-87 . . .	35·6	·04
1872-73 . . .	16·2	3·8	1887-88 . . .	35·2	·1
Mean .	8·92	2·02	Mean .	34·68	·38
1873-74 . . .	14·5	3·8	1888-89 . . .	36·1	·3
1874-75 . . .	21·0	·5	1889-90 . . .	55·68	·7
1875-76 . . .	24·0	·4	1890-91 . . .	34·3	·2
1876-77 . . .	31·1	·2	1891-92 . . .	36·0	·01
1877-78 . . .	38·0	2·9	1892-93 . . .	37·0	·02
Mean .	25·72	1·56	Mean .	35·8	·2
1878-79 . . .	22·3	2·7	1893-94 . . .	35·0	·06
1879-80 . . .	29·3	·03	1894-95 . . .	32·2	·3
1880-81 . . .	33·9	·02	1895-96 . . .	31·8	.2
1881-82 . . .	32·5	·08	1896-97 . . .	34·5	·2
1882-83 . . .	38·0	·1	1897-98 . . .	34·7	·2
Mean .	31·2	·58	Mean .	33·6	·19

Beginning with the quinquennial period 1869 to 1873, it will be seen that the small-pox death-rate was 2·02 per 1,000 of population, and that in each period of five years it has steadily declined as vaccination has advanced, till for the period ending 1898 it has been 0·19 per 1,000.

It may be noted that small-pox inoculation never prevailed in Berar, and that the disease is quite as virulent amongst the unvaccinated as it ever was. There is nothing but vaccination to which this great diminution of small-pox mortality can be attributed. The above figures tend to prove the axiom that in countries where there is much vaccination and revaccination relatively to the population there is but little small-pox.

The total expenditure on the Department fell from R17,573 in 1896-97, to R17,549, and the average cost of each successful case was the same in both years, namely, two annas and nine pies.

Madras.

242. The inspecting staff in Madras consisted of one Deputy Sanitary Commissioner, the District Medical Officers and 60 Deputy Inspectors. The average number of Vaccinators employed was 824, or 10 less than in 1896-97. Notwithstanding the reduction in the number of operators, the number of operations rose from 1,234,350 in the previous year, to 1,258,010 in 1897-98, the average number performed by each operator rising from 1,465 to 1,508. The increase was not, however, general, but was limited to 11 districts and certain of the municipalities and cantonments. In 10 districts and in 31 municipalities there was a falling off, ascribed to a variety of causes; among them, the prevalence of famine, the presence of cholera, failure of lymph, the opposition of the people, and the lack of help received from heads of villages.

Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	3·02	21·	1888 . .	0·8	24·4
1878 . .	1·9	14·	1889 . .	1·0	26·1
1879 . .	0·0	13·	1890 . .	1·0	27·9
1880 . .	0·5	18·	1891 . .	1·4†	30·2
1881 . .	0·5	16·7	1892 . .	1·3	28·7
1882 . .	0·6	19·22	1893 . .	0·8	30·0
1883 . .	0·3	21·9	1894 . .	0·3	29·7
1884 . .	2·1	23·0	1895 . .	0·1	29·6
1885 . .	1·2	22·3	1896 . .	0·29	31·1
1886 . .	0·6	21·1	1897 . .	0·7	31·4
1887 . .	0·7	22·1			

* The ratios of successful vaccinations refer to official year (April to March).

† Calculated on the census figures of 1881.

Of the total number of operations, 1,177,100 were primary, of which 92 per cent. were successful, and 80,910 were revaccinations, in which the ratio of success was 81 per cent., as compared with percentages of success obtained in 1896-97, of 92·6 and 80·2, respectively.

Besides the above, 13,719 operations were performed by the establishments attached to dispensaries, a slight increase of 349 over the number performed by them in the previous year. The percentages of success reached in dispensary vaccination were, however, lower than in 1896-97, having been, in primary cases, 83·5, against 88·0, and in revaccinations, 72·8, against 74·8.

In all, 331,297 infants under one year of age were successfully vaccinated. This is equal to about 23·23 per cent. of the births, estimated at 40 per thousand of the census population, as compared with 23·20 per cent. in 1896-97, 22·0 in 1895-96, and 18·6, the mean of the three years 1892-93 to 1894-95.

During the last nine months of the official year the Deputy Sanitary Commissioner was employed on duty outside the Presidency, in connection

with plague and was unable to carry out any inspection. The percentages of cases verified by Civil Surgeons and the Native Superintendents and others were much the same as in the previous year, namely, 2·5 and 49·7. The ratio of success in the cases examined by Civil Surgeons was 92·3 per cent., and in those examined by the Native Superintendents 89·1, as compared with 90·8 and 89·5 per cent. found successful by these officials, respectively, in 1896-97.

Humanized lymph was not used anywhere in the Presidency. In all operations performed during the year animal lymph was used, either (*a*) fresh, calf-to-arm, (*b*) stored in tubes without admixture, (*c*) mixed with glycerine and stored in tubes, and (*d*) mixed with lanoline and stored in tubes.

The results obtained with the various vaccines used in the districts, excluding dispensaries and municipalities, is shewn in this statement:—

	Number of cases.	Percentage of success.
(*a*) Fresh lymph . . .	302,225	97·9
(*b*) Lymph without admixture .	126,683	95·9
(*c*) Glycerinated lymph . .	621,494	88·1
(*d*) Lanolinated lymph . .	91,866	86·6

As in former years, lymph taken direct from the calf secured the best results. It will be observed that the positions held by glycerinated and lanolinated lymph have been reversed, due to a great falling off in the percentage of success obtained in 1897-98 with the latter. As compared with 1896-97, the percentage of success in operations with glycerinated lymph has fallen from 88·9 to 88·1, while the falling off with the lanolinated lymph is from 94·0 to 86·6.

The total cost of the Department rose from R2,51,506 in 1896-97, to R2,59,182, and the average cost of each successful operation from three annas and eight pies, to three annas and nine pies.

Coorg.

243. The vaccination establishment under the control of the Civil Surgeon of the small province of Coorg consisted of an average of eight operators working under the supervision of a Native Superintendent. The total number of operations performed was 10,616, or 610 more than in 1896-97, and the average number done by each vaccinator rose from 1,112 to 1,180. Primary operations numbered 9,230, of which 95·80 succeeded; and 89·25 per cent. of 1,386 revaccinations were successful. Medical subordinates attached to dispensaries performed 250 primary vaccinations and 111 revaccinations, of which 73·60 and 32·43 per cent., respectively, succeeded.

Estimating the birth-rate at 40 per mille, which is, in this case, above the actual rate, only 13·10 per cent. of the infants born during the year were protected, against 18·6 in 1896-97, 17·2 in 1895-96, and 13·3, the mean of the three years 1892-93 to 1894-95. The falling off in infantile vaccination is attributable to the low birth-rate and to the exceptional insalubrity of the year, which led to the postponement of vaccination in many cases.

Calf lymph was used exclusively. About 1·55 per cent. of the cases were verified by the Civil Surgeon and 31·93 by the Native Superintendent, as compared with 1·24 and 33·41 verified by them, respectively, in 1896-97.

The cost of the Department fell from R2,790 in the previous year to R2,727 in 1897-98, and the cost of each successful case from four annas and eight pies to four annas and four pies.

Bombay.

244. Excluding the Native States of Baroda, Cutch, Kathiawar, Palanpur and Idar, the returns from which are dealt with separately, the vaccination staff of the Bombay Presidency comprised, under the control of the Sanitary Commissioner, 5 Deputy Sanitary Commissioners, 1 Superintendent of Vaccination for the City of Bombay, 45 Inspectors of Sanitation and Vaccination, and 435 Vaccinators.

The total number of operations performed was 736,409, as compared with 802,738 in the previous year, and the average number performed by each operator fell from 1,834 to 1,690. The falling off was general throughout the Presidency, and was due to the disturbing effects of famine and plague. Of the total number of operations, 675,901 were primary, 59,495 were revaccinations, and 1,013 were secondary operations, performed in cases in which the first operation had failed.

Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	1·69	26·58	1888 . .	0·22	34·07
1878 . .	0·28	22·30	1889 . .	0·43	34·34
1879 . .	0·07	23·15	1890 . .	0·17	33·59
1880 . .	0·06	25·25	1891 . .	0·08	31·78
1881 . .	0·03	27·88	1892 . .	0·15	30·71
1882 . .	0·10	30·18	1893 . .	0·19	30·10
1883 . .	0·81	31·01	1894 . .	0·17	30·68
1884 . .	0·88	30·39	1895 . .	0·12	31·80
1885 . .	0·16	32·45	1896 . .	0·34	35·34
1886 . .	0·05	32·30	1897 . .	0·20	28·89
1887 . .	0·23	33·54			

* The ratios of successful vaccinations refer to official year (April to March).

The percentage of success in primary operations was 91·90, and in revaccinations 58·41, compared with percentages of 92·19 and 59·64 in 1896-97.

By dispensary establishments 3,021 operations were performed, of which 2,313 were primary, 655 revaccinations, and 53 secondary. The ratios of success attained were 95·98 and 69·77 per cent., against 85·67 and 76·13, respectively, in the previous year.

Estimating the births at 40 per thousand, 55·54 per cent. of the infants born were protected, as compared with 59·1 in 1896-97, 58·0 in 1895-96, and 56·2, the mean of the three years 1892-93 to 1894-95.

The work of inspection suffered great interference from the effects of famine and plague. All the Deputy Sanitary Commissioners and many of the Inspectors were employed on plague duty during the year; moreover, owing to the absence of villagers from their homes during the famine, and the exodus from towns on account of plague, it was difficult to find the children who had been vaccinated. The percentage of operations inspected by Deputy Sanitary Commissioners was only 1·18, and by Native Inspectors, 31·79, as compared with 4·74 and 36·42 in 1896-97, and 7·03 and 37·67 in 1895-96.

Bovine lymph was used in the City of Bombay exclusively, and in selected areas elsewhere.

The total cost of the Department fell from R2,81,867 in 1896-97, to R2,78,697, but the average cost of each successful operation rose from six annas and four pies to six annas and ten pies.

In the Native States of Baroda, Cutch, Kathiawar, Palanpur and Idar, not counting secondary operations, 213,299 vaccinations were performed, a reduction of 6,387 as compared with the previous year. Primary operations numbered 202,317, and revaccinations 10,989, with percentages of success, respectively, of

94·90 and 67·22, as compared with 94·13 and 69·50 in 1896-97. The number of infants protected was 161,278, or 236 fewer than in the preceding year.

245. In 1897-98 the vaccination statistics of Upper Burma have been merged with those of the older province.

Burma.

The Department is administered by the Sanitary Commissioner with the assistance of the Civil Surgeons in their several districts and eleven Native Inspectors. In Rangoon Town the municipal vaccination establishment is under the immediate superintendance of the Municipal Health Officer.

The average number of vaccinators employed was 167, as compared with 161 in 1896-97, and the total number of operations performed by them rose from 414,845 in that year, to 421,786. Primary operations numbered 400,318, or 9,652 more than in the previous year, but the number of revaccinations was only 21,468, or 2,711 fewer. The increase in the number of primary operations, moreover, was not general, and there was a decrease in no less than ten districts, conspicuously in Rangoon, Pakokku, Thaton, Yamethin and Meiktila.

Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1877 . .	0·41	6·66	1888 . .	0·16	19·79
1878 . .	0·47	9·25	1889 . .	0·77	26·67
1879 . .	0·74	11·79	1890 . .	1·01	24·36
1880 . .	1·73	11·00	1891 . .	0·29	21·42
1881 . .	0·48	11·	1892 . .	0·32	25·79
1882 . .	0·21	12·50	1893 . .	0·68	30·35
1883 . .	0·19	16·70	1894 . .	0·38	35·38
1884 . .	1·67	19·95	1895 . .	0·34	44·89
1885 . .	0·58	13·46	1896 . .	0·37	55·44
1886 . .	0·03	14·69	1897 . .	0·41	48·08
1887 . .	0·06	16·70			

Note.—Figures prior to 1897 in this Statement refer to Lower Burma only.
* The ratios of successful vaccinations refer to official year (April to March).

The interdiction of the compulsory vaccination of unprotected adults is to some extent, at any rate, responsible for the grave falling off in the number of vaccinations performed in Rangoon Town in recent years; but as the Local Government is now taking steps to legalize (1) the vaccination of unprotected persons on board any ship on which small-pox has occurred, (2) the vaccination of unprotected inmates of cooly barracks and lodging houses, and also (3) the serving of notices requiring any unprotected person to be vaccinated within seven days, it may be hoped that the number of operations will increase again.

The ratios of success obtained were, in primary cases 94·56 per cent. and in revaccinations, 61·38, as compared with 92·43 and 59·50, respectively, in 1896-97; the rise being ascribed to improvement in the quality of the lymph supplied from the depots at Rangoon and Taunggyi.

There was a considerable increase in the number of operations performed by Civil Surgeons and medical subordinates attached to dispensaries, but more than half the total, which was 9,764, against 8,403 in the previous year, were performed in the three districts of Hanthawaddy, Thongwa and Sagaing. Primary operations numbered 5,151 and revaccinations 4,613 and 94·95 per cent. and 52·18, respectively, succeeded.

Of the estimated number of children born during the year 111,931, or 34·34 per cent., were protected, against 32·29 per cent. in the preceding year, 22·05 per cent. in 1895-96 and 15·79 per cent. in the three years 1892-93 to 1894-95.

No improvement seems to have been effected in the vaccination arrange-

ments in the Shan States. Although there was some increase in the number of operations performed in the Northern Shan States, the proportion of success continued low and the check was insufficient. In the Southern Shan States there was a falling off in the numbers as compared with the previous year, attributed to the epidemic prevalence of cholera from May to September, in consequence of which the vaccinators were employed in looking after the sick and distributing medicines, while parents, in terror of the disease, would not allow the vaccination of their children.

Improvement is observable in the proportion of cases inspected. The percentage verified by Civil Surgeons was 22·58 and by Native Inspectors 16·52.

Lymph paste was prepared in the depots at Rangoon and Taunggyi, whence most of the lymph used, which was generally of good quality, was supplied.

Inoculation is still practised in some places, and is said to have led in many cases to outbreaks of small-pox.

The cost of the Department rose from R64,153 in 1896-97, to R66,790, but there was no increase in the average cost of each successful case, which, as in the previous year, was two annas and nine pies.

246. Vaccination in this small province is supervised by the Civil Surgeon of Ajmere, assisted by a Native Superintendent. The average number of Vaccinators employed in 1897-98 was 13, and the total number of operations, performed was 16,555, or 273 more than in the previous year. Nearly all were primary operations, which proved successful at the rate of 98·74 per cent.; of the 75 re-vaccinations, 46, or 61·33 per cent., succeeded.

Ajmere-Merwara.

Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*	Year.	Death-rate from small-pox per 1,000 of population.	Number successfully vaccinated per 1,000 of population.*
1879 . .	1·00	10·	1889 . .	3·66	20·
1880 . .	1·67	9·	1890 . .	·68	26·35
1881 . .	4·04	11·	1891 . .	1·03	23·75
1882 . .	1·56	10·04	1892 . .	3·05	19·99
1883 . .	1·25	10·	1893 . .	·13	22·34
1884 . .	2·06	8·	1894 . .	·81	24·30
1885 . .	2·83	7·	1895 . .	1·39	28·39
1886 . .	2·47	16·	1896 . .	7·05	29·51
1887 . .	·96	22·	1897 . .	0·29	30·09
1888 . .	1·48	22·			

* The ratios of successful vaccinations refer to official year (April to March).

The number of infants protected was 10,996, or about 50·6 per cent. of an estimated birth-rate of 40 per mille, as compared with 51·3 per cent. in 1896-97, 46·3 in 1895-96, and a mean of 40·5 in the three years 1892-93 to 1894-95.

The cost of the Department rose from R1,870 in 1896-97, to R2,176, and the average cost of each successful case from one anna and ten pies, to two annas and two pies.

247. The list of towns, cantonments and rural tracts in which the Act is in force will be found in Appendix B to this Section; those into which it was introduced during the year 1897-98 being distinguished by an asterisk.

Compulsory Vaccination Act.

248. The statistics of vaccination among European and Native troops from 1890-91 to 1897-98 will be found in Statement No. VII of Appendix A.

Vaccination among troops.

Appendix A to Section VII

STATEMENT NO. I.—*Showing the strength of the Special Vaccination Establishment in each province and the total number of persons vaccinated by them during the year 1897-98.*

PROVINCE.	Population among whom vaccination was carried on (census of 1891).	Average population per square mile.	STAFF.			TOTAL NUMBER OF PERSONS VACCINATED.			Average number vaccinated by each vaccinator.
			European supervising officers (omitting Civil Surgeons).	Native supervising officers.	Average number of vaccinators employed during the year.	Male.	Female.	TOTAL.	
Bengal	70,832,144	398	3	206	3,383	1,145,805	1,054,822	2,200,627	650
Assam	5,634,258	113	...	18	222	143,468	112,115	†255,583	1,065
North-Western Provinces and Oudh	47,146,033	421	2	50	866	749,383	635,277	1,384,660	1,599
Punjab	20,724,940	186	1	40	305	462,291	383,200	845,491	2,772
Central Provinces	12,944,805	112	...	28	274	200,265	184,211	384,476	1,391
Berar	2,897,040	192	...	7	44	71,219	54,070	125,289	2,847
Madras Presidency	35,651,577	261	1	60	824	672,593	585,417	1,258,010	1,508
Coorg	173,055	109	...	1	8	7,132	3,484	10,616	1,180
Bombay Presidency	22,701,942	143	6	45	435	390,154	345,242	736,409*	1,690
Burma	8,146,855	81	...	11	167	225,037	196,749	421,786	2,526
Ajmere-Merwara	542,358	200	1	1	13	8,628	7,927	16,555	1,273

* Including 1,013 secondary vaccinations.
† Excluding Tea Gardens.

STATEMENT NO. II.—*Showing the proportion of successful cases in primary vaccinations and re-vaccinations performed by the Special Vaccination Establishment in each province during the year 1897-98.*

PROVINCE.	PRIMARY VACCINATIONS.				RE-VACCINATIONS.		PERCENTAGE OF SUCCESSFUL CASES.	
	TOTAL.	Successful.			TOTAL.	Successful.	Primary.	Re-vaccinations.
		—1	—6	Total of all ages.				
Bengal	2,149,314	479,456	1,412,066	2,107,267	51,313	35,764	98·04	69·69
Assam	*245,381	55,574	140,700	*242,871	10,202	9,391	*98·98	92·05
North-Western Provinces and Oudh	1,318,615	551,113	482,810	1,182,395	66,045	41,934	93·74	68·20
Punjab	631,774	475,929	110,270	596,391	213,717	129,885	94·40	60·77
Central Provinces	333,893	179,513	107,886	323,051	50,583	44,448	96·75	87·87
Berar	95,048	73,534	14,241	91,667	30,241	9,095	96·4	30·0
Madras Presidency	1,177,100	329,629	530,595	1,057,565	80,910	60,819	92·0	81·0
Coorg	9,230	900	4,026	8,842	1,386	1,237	95·80	89·25
Bombay Presidency	676,868	503,795	107,184	621,145	59,541	34,754	91·90	58·41
Burma	400,318	109,977	189,457	378,558	21,468	13,176	94·56	61·38
Ajmere-Merwara	16,480	10,996	4,926	16,272	75	46	98·74	61·33

* Excluding Tea Gardens.

Appendix A to Section VII—*continued.*

STATEMENT NO. III.—*Showing the cost of the Special Vaccination Establishment in each province, the cost of each successful case, and the sources from which the expenses were paid during the year 1897-98.*

Province.	Expenditure.				Paid from						Average cost of each successful case.
	Establishment.	Travelling allowances.	Contingencies.	Total.	Imperial funds.	Provincial funds.	Local funds.	Municipalities.	Native States.	Total.	
	R	R	R	R	R	R	R	R	R	R	R a. p.
Bengal . .	1,17,418	44,210	19,852	1,81,480	...	1,38,348	4,504	36,878	1,751	1,81,480	0 1 3
Assam . . .	18,379	2,974	993	22,346	..	8,316	11,820	848	1,362	22,346	0 1 8
North-Western Provinces and Oudh . .	1,20,014	3,413	7,815	1,31,242	...	87,166	10,903	24,255	8,918	1,31,242	0 1 8
Punjab . .	87,898	4,479	6,131	98,508	...	17,626	55,989	23,348	...	‡98,508	0 2 2
Central Provinces.	41,630	3,401	1,117	46,148	...	3,136	33,472	2,754	6,786	46,148	0 2 0
Berar . . .	17,094	21	434	17,549	...	17,549	...	...	...	17,549	0 2 9
Madras Presidency	1,70,595	34,781	53,806	2,59,182	2,289	25,472	1,95,776	34,378	...	*2,59,182	†0 3 9
Coorg . . .	1,904	224	599	2,727	...	2,169	...	558	...	2,727	0 4 4
Bombay Presidency	2,27,376	22,202	29,119	2,78,697	..	99,009	1,08,883	39,426	31,379	2,78,697	0 6 10
Burma . . .	50,743	14,627	1,420	66,790	1,695	12,832	32,838	19,4°4	...	66,790	0 2 9
Ajmere-Merwara .	2,067	76	33	2,176	762	276	434	704	...	2,176	0 2 2

* Including R1,268 from Zemindaries.
† Inclusive of the pay and allowances of the Inspector of Vaccination and Deputy Sanitary Commissioner.
‡ Including R1,545 from cantonment funds.

STATEMENT NO. IV.—*Showing the vaccinations performed by the Dispensary and other Establishments in each province during the year 1897-98.*

Province.	Number of vaccinators attached to dispensaries, etc.	Total number of persons vaccinated.	Average number vaccinated by each vaccinator.	Primary vaccinations.				Re-vaccinations.		Percentage of successful cases.	
				Total.	Successful.			Total.	Successful.	Primary.	Re-vaccinations.
					—1	—6	Total of all ages.				
Bengal . .	245	118,909	485	93,779	29,159	47,424	88,242	25,130	13,443	94·09	53·49
Assam . . .	...	17,177	...	16,172	2,881	9,564	15,793	1,005	803	97·66	79·90
North-Western Provinces and Oudh . .	...	345	...	297	183	29	256	48	18	90·46	60·00
Punjab . .	...	1,808	...	1,241	794	187	999	567	300	80·50	52·91
Central Provinces.	...	14,223	...	13,317	7,924	3,994	12,606	906	710	94·66	78·37
Berar*. . .	...	...	...	...	...	...	..	...	...	...	...
Madras Presidency	...	13,719	...	12,046	1,668	4,804	9,754	1,673	1,100	83·5	72·8
Coorg . . .	...	361	45	250	7	33	184	111	36	73·60	32·43
Bombay Presidency	...	3,021†	...	2,366	606	599	2,220	655	457	95·98	69·77
Burma . .	...	9,764	...	5,151	1,954	2,086	4,891	4,613	2,407	94·95	52·18
Ajmere-Merwara‡.	...	...	...	...	...	...	...	...	...	...	...

* Dispensary vaccination transferred to Special Establishment since July 1892.
† Including 53 secondary vaccinations.
‡ No dispensary vaccination.

Appendix A to Section VII—*continued.*

STATEMENT NO. V.—*Showing the total vaccinations performed by the Special Vaccination and Dispensary Establishments combined in each province during the year 1897-98.*

PROVINCE.	TOTAL NUMBER SUCCESSFULLY VACCINATED.			Ratio of successful vaccinations per 1,000 of population.*	AVERAGE ANNUAL SUCCESSFUL VACCINATIONS DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.	
	By Vaccine Department.	By Dispensaries.	TOTAL.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Bengal . . .	2,143,031	101,685	2,244,716	30·25	1,929,574	27·24	13,039	·18
Assam . . .	252,262	16,596	268,858	‖ 44·77	‖ 182,700	‖ 32·43	3,476	0·67§
North-Western Provinces and Oudh . .	1,224,329	274	1,224,603	25·97	1,222,672	25·93	12,577	·27
Punjab . . .	726,276	1,299	727,575	35·04	750,319	36·20	15,947	0·77
Central Provinces .	367,499	13,316	380,815	28 39	423,550	32·72	3,939	·37
Berar . . .	100,762	†	100,762	34·7	98,794	34·1	635	·21
Madras Presidency .	1,118,384	10,854	1,129,238	31·4	1,064,922	29·8	19,389	0·6
Coorg . . .	10,079	220	10,299	58·24	9,493	54·86	130	0·75
Bombay Presidency	655,899	2,677	658,576	28·89	707,277	31·15	4,623	·24
Burma . . .	391,734	7,298	399,032	48·08	274,011	33·63	1,901	·38
Ajmere-Merwara .	16,318	‡	16,318	30·09	13,576	25·03	1,348	2·49

* Calculated on the work done by the Special Establishment only.
† Dispensary vaccination transferred to Special Establishment since July 1892.
‡ No dispensary vaccination.
§ Exclusive of Naga Hills, Garo Hills, North Lushai and Manipur.
‖ Exclusive of Tea Gardens.

STATEMENT NO. VI.—*Showing the operations performed by the Special Vaccination and Dispensary Establishments combined with the estimated births in each province during the year 1897-98.*

PROVINCE.	Annual births estimated at 40 per 1,000 of population.	NUMBER OF CHILDREN SUCCESSFULLY VACCINATED UNDER ONE YEAR.			Percentage of annual estimated births successfully vaccinated.	NUMBER OF CHILDREN SUCCESSFULLY VACCINATED ABOVE ONE AND UNDER SIX YEARS.		
		By Vaccine Department.	By Dispensaries.	TOTAL.		By Vaccine Department.	By Dispensaries.	TOTAL.
Bengal	2,833,285	479,456	29,159	508,615	17·8	1,412,066	47,424	1,459,490
Assam	225,370	55,574	2,881	58,455	25·9	140,700	9,564	150,264
North-Western Provinces and Oudh . . .	1,885,841	551,113	183	551,296	29·23	482,810	29	482,839
Punjab	828,998	475,929	794	476,723	57·5	110,270	187	110,457
Central Provinces . .	517,792	179,513	7,924	187,437	36·20	107,886	3,994	111,880
Berar	115,882	73,534	*	73,534	63·4	14,241	*	14,241
Madras Presidency .	1,426,063	329,629	1,668	331,297	23·23	530,595	4,804	535,399
Coorg	6,922	900	7	907	13·10	4,026	33	4,059
Bombay Presidency .	908,078	503,795	606	504,401	55·54	107,184	599	107,783
Burma	325,874	109,977	1,954	111,931	34·34	189,457	2,086	191,543
Ajmere-Merwara . .	21,694	10,996	†	10,996	50·6	4,926	†	4,926

* Dispensary vaccination transferred to Special Establishment since July 1892.
† No dispensary vaccination.

Appendix A to Section VII—*concluded.*

STATEMENT No. VII.—*Comparative statement showing the number of persons primarily vaccinated, and the number of those who were successfully vaccinated in Her Majesty's European and Native Troops in India in each of the undermentioned official years.*

PERSONS PRIMARILY VACCINATED.

YEARS ENDED 31ST MARCH.

	1891.				1892.				1893.				1894.				1895.				1896.				1897.				1898.			
	European army.		Native army.		European army.		Native army.		European army.		Native army.		European army.		Native army.		European army.		Native army.		European army.		Native army.		European army.		Native army.		European army.		Native army.	
	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.
Bengal . . .	(a) 678	575	6,999	5,224	663	655	6,753	5,217	772	567	7,027	5,186	678	608	6,339	4,717	840	637	5,668	4,381	519	395	2,995	2,360	417	271	4,275	2,945	377	305	3,215	2,570
Punjab . . .																					267	187	3,777	3,158	337	254	3,914	2,969	274	229	1,681	1,366
Madras . . .	294	202	3,827	2,907	366	270	3,499	2,665	250	165	3,273	2,636	276	205	2,970	2,239	259	174	3,118	2,317	251	184	3,758	2,780	201	141	2,821	2,095	231	189	2,858	2,421
Bombay . . .	189	145	1,816	1,496	199	144	1,784	1,571	566	481	1,949	1,607	215	114	1,489	1,292	190	107	1,561	1,269	205	134	1,880	1,586	248	137	2,219	1,763	176	123	2,060	1,658
Central India and Rajputana . .	...	...	478	472	...	...	647	584	...	...	499	456	...	...	464	439	...	...	448	419	...	...	726	664	...	...	592	536	...	...	*	*
Hyderabad Contingent . . .	...	...	1,371	1,162	...	...	1,432	1,263	..	...	1,180	932	...	...	1,685	1,351	...	...	904	768	...	...	1,312	1,148	...	...	1,202	1,035	...	...	1,053	877
India . . .	1,161	922	14,491	11,261	1,228	1,069	14,115	11,300	1,588	1,213	13,928	10,817	1,169	927	12,947	10,038	1,289	918	11,699	9,154	1,242	900	14,448	11,696	1,203	803	15,023	11,343	1,058	846	10,867	8,892

(a) Excluding the figures of the Station Hospital, Meerut, the return of which has not been received.
* The Central India and Rajputana Corps have been included in the Bengal and Bombay Commands.

Appendix B to Section VII.

List of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.		Town.	Rural tract.		Province and district.		Town.	Rural tract.	
BENGAL.									
Burdwan	1	Burdwan	BURDWAN DIVISION.	1 From the river Damodar to Assansol on the Bengal-Nagpur Railway.	Darjeeling	77	Darjeeling.		None.
	2	Raniganj				78	Kurseong.		
	3	Katwa			Jalpaiguri	79	Jalpaiguri.		
	4	Dainhat			Dacca	80	Dacca.		
	5	Kalna				81	Narainganj.		
Bankura	6	Bankura		2 The storeyard in village Dihika.	Faridpur	82	Faridpur.		
	7	Vishnupur				83	Madaripur.		
	8	Sonamukhi			Backerganj	84	Barisal.		
	9	Suri		3 The branch line from station Damodar on the Bengal-Nagpur Railway to Sanctoria.		85	Jhalokati.		
Birbhum	10	Rampur Hat*				86	Nalchiti.		
	11	Khalasipara*				87	Ferozepur.		
	12	Bogtoi*				88	Patuakhali.		
	13	Brahmanigram*			Mymensingh	89	Nasirabad.		
	14	Kalisara*				90	Muktagacha.		
Midnapore	15	Midnapur		4 The Bengal-Nagpur Railway premises at Assansol (Budha).		91	Jamalpur.		
	16	Ghatal				92	Sherpur.		
	17	Chandrakona				93	Tangail	VILLAGES OF CHITTAGONG DISTRICT.	1 Maheshkali.
	18	Kirpai				94	Netrokona		2 Patenga.
	19	Ramjibunpur				95	Kishoreganj		3 Goshaildenga.
	20	Kharar				96	Bazitpur		4 Halishahar.
	21	Tamluk			Tipperah	97	Comilla		5 Katakhali.
	22	Hooghly and Chinsura.				98	Brahmanbaria		6 Bakaliya.
	23	Utterpara.			Noakhally	99	Sudharam or Noakhali.		7 Chandgaon.
Hooghly	24	Bansberia.			Chittagong	100	Chittagong		8 Nasirabad.
	25	Serampore.				101	Cox Bazar		9 Pahartali.
	26	Baidyabati.			Patna	102	Patna City		10 Agrabad.
	27	Bhadreswar.				103	Dinapur Nizamut		
	28	Kotrung.				104	Barh		
	29	Jahanabad.				105	Bihar		
Howrah	30	Howrah.			Gya	106	Gya		
	31	Bally.				107	Tikari		
24-Parganas	32	Cossipur and Chitpur.				108	Daudnagar		
	33	Maniktola.			Shahabad	109	Arrah		
	34	Baranagar.				110	Buxar		
	35	South Subarbun.				111	Dumraon		
	36	Rajpur.				112	Sasaram.		
	37	Baruipur.				113	Jagadishpur.		
	38	Jaynagar.				114	Shahbhua.		
	39	South Barrackpore.			Darbhanga	115	Darbhanga.		
	40	North Barrackpore.				116	Roserha.		
	41	North Dum-Dum.				117	Madhubani.		
	42	South Dum-Dum.			Muzaffarpur	118	Muzaffarpur.		
	43	Basirhat.				119	Sitamarhi.		
	44	Taki.				120	Lalganj.		
	45	Baduria.				121	Hajipur.		
	46	Barasat.			Saran	122	Chapra.		
	47	Naihati.				123	Siwan.		
	48	Gobardanga.				124	Revilganj.		
Khoolna	49	Khoolna.		None.	Champaran	125	Motihari.		
	50	Satkhira.				126	Bettiah.		
	51	Chanduria.			Monghyr	127	Monghyr.		
	52	Debhatia.				128	Jamalpur.		
Nadia	53	Krishnagar.				129	Jamui.		
	54	Nadia.			Bhagalpur	130	Bhagalpur.		
	55	Kushtia.				131	Colgong.		
	56	Kumarkhali.			Purneah	132	Purneah.		
	57	Meherpur.				133	Kishorganj.		
	58	Santipur.			Maldah	134	English Bazar.		
	59	Ranaghat.				135	Old Maldah	CHOTA NAGPUR DIVISION.	Area situated within the Bengal-Nagpur Railway boundary from mile 421·368 west of Nimdip Nala to mile 620·75 where the line crosses the Damodar river within the jurisdiction of the Commissioner of the Chota Nagpur Division.
	60	Chakdaha.				136	Deoghar		
	61	Birnagar.			Sonthal Parganas.	137	Sahibganj		
Jessore	62	Jessore.				138	Dumka		
	63	Kotchandpur.				139	Rajmahal		
	64	Moheshpur.			Cuttack	140	Cuttack		
Murshidabad	65	Berhampur.				141	Kendrapara		
	66	Lalbag or City Murshidabad.				142	Jajpur		
	67	Jhangipur.			Balasore	143	Balasore		
	68	Kandi.			Puri	144	Puri		
Dinajpur	69	Dinajpur.			Hazaribagh	145	Hazaribagh		
Rajshahi	70	Rampur Boalia.				146	Chatra		
	71	Nattore.			Lohardaga	147	Ranchi		
Rangpur	72	Rangpur.				148	Lohardaga		
Bogra	73	Bogra.			Palamau	149	Daltonganj		
	74	Sherpur.			Manbhum	150	Purulia		
Pabna	75	Pabna.				151	Jhalda		
	76	Serajganj.				152	Raghunathpur		
					Singbhum	153	Chaibasa		

* In places marked with an asterisk the Vaccination Act was introduced in 1897.

Appendix B to Section VII — *continued.*

List of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.		Town.		Rural tract.
Assam.				
Cachar	1	Silchar	...	None.
Sylhet	2	Sylhet	...	
Goalpara	3	Dhubri	...	
	4	Goalpara	...	
Kamrup	5	Gauhati	...	
Lakhimpur	6	Dibrugarh	...	
Sibsagar	7	Sibsagar Station	...	
	8	Golaghat Union	...	
	9	Jorhat Union	...	
Khasi and Jaintia Hills.	10	Shillong	...	
Nowgong	11	Nowgong*	...	
North-Western Provinces and Oudh				
Almora	1	Almora	...	None.
Naini Tal	2	Naini Tal	...	
	3	Khasipur	...	
	4	Haldwani*	...	
Bijnor	5	Bijnor	...	
	6	Chandpur	...	
	7	Dhampur	...	
	8	Nagina	...	
Moradabad	9	Najibabad	...	
	10	Moradabad	...	
	11	Chandausi	...	
	12	Amroha	...	
	13	Sambhal	...	
Bareilly	14	Bareilly	...	
Pilibhit	15	Pilibhit	...	
	16	Bilaspur	...	
Shahjahanpur	17	Shahjahanpur	...	
	18	Tilhar	...	
Budaun	19	Budaun	...	
	20	Bilsi	...	
	21	Ujhani	...	
	22	Sahaswan	...	
Dehra Dun	23	Dehra	...	
	24	Mussoorie	...	
Saharanpur	25	Saharanpur	...	
	26	Hardwar Union	...	
	27	Deoband	...	
	28	Roorkee	...	
Muzaffarnagar	29	Muzaffarnagar	...	
	30	Kairana	...	
	31	Kandhla	...	
Meerut	32	Meerut	...	
	33	Ghaziabad	...	
	34	Baraut	...	
	35	Bagput	...	
	36	Sardhana	...	
	37	Mawana	...	
	38	Shahdara	...	
	39	Hapur	...	
	40	Pilkhawa	...	
Bulandshahr	41	Bulandshahr	...	
	42	Anupshahr	...	
	43	Sikandrabad	...	
	44	Khurja	...	
Aligarh	45	Koil	...	
	46	Hathras	...	
	47	Sikandra Rao	...	
	48	Atrauli	...	
Etah	49	Etah	...	
	50	Soron	...	
	51	Kasganj	...	
	52	Marehra	...	
	53	Jalesar	...	
Muttra	54	Muttra	...	
	55	Kosi	...	
	56	Brindaban	...	
Farukhabad	57	Farukhabad-Fatehgarh	...	
Mainpuri	58	Mainpuri	...	
Agra	59	Agra	...	
	60	Fatehpur-Sikri	...	
	61	Ferozabad	...	
Etawah	62	Etawah	...	
Lucknow	63	Lucknow	...	

Province and district.		Town.		Rural tract.
North-Western Provinces and Oudh—*contd.*				
Unao	64	Unao	...	None.
Rae Bareli	65	Rae Bareli	...	
Sitapur	66	Sitapur	...	
	67	Khairabad	...	
	68	Shahabad	...	
Hardoi	69	Hardoi	...	
	70	Sandi	...	
	71	Pihani	...	
	72	Sandila	...	
Kheri	73	Lakhimpur	...	
	74	Muhamdi	...	
Cawnpore	75	Cawnpore	...	
Fatehpur	76	Fatehpur	...	
Banda	77	Banda	...	
Allahabad	78	Allahabad	...	
Jalaun	79	Orai	...	
	80	Kalpi	...	
	81	Kunch	...	
Jhansi	82	Jhansi	...	
	83	Mau Ranipur	...	
	84	Lalitpur	...	
Fyzabad	85	Fyzabad-Ajudhia	...	
	86	Tanda	...	
Gonda	87	Gonda	...	
	88	Nawabganj	...	
	89	Utraula	...	
	90	Balrampur	...	
Bahraich	91	Bahraich	...	
	92	Bhinga	...	
	93	Nanpara	...	
Barabanki	94	Nawabganj	...	
Sultanpur	95	Sultanpur	...	
Partabgarh	96	Bela	...	
Gorakhpur	97	Gorakhpur	...	
Azamgarh	98	Azamgarh	...	
Ghazipur	99	Ghazipur	...	
Ballia	100	Ballia	...	
Benares	101	Benares	...	
Mirzapur	102	Mirzapur	...	
	103	Chunar	...	
Jaunpur	104	Jaunpur	...	
Punjab.				
Rohtak	1	Rohtak	...	None.
	2	Beri	...	
Delhi	3	Delhi	...	
Umballa	4	Umballa	...	
Simla	5	Simla	...	
	6	Kasauli	...	
	7	Subathu	...	
	8	Dagai	...	
Jhang	9	Jhang Cum Maghiana	...	
Lahore	10	Lahore	...	
Amritsar	11	Amritsar	...	
Bannu	12	Edwardesabad	...	
	13	Isa Khel*	...	
Dera Ghazi Khan	14	Dera Ghazi Khan	...	
	15	Leiah	...	
Kangra	16	Dharmsala	...	
Jullundur	17	Jullundur	...	
Gurdaspur	18	Dalhousie	...	
Rawalpindi	19	Murree	...	
	20	Rawalpindi	...	
Jhelum	21	Jhelum	...	
	22	Pind Dadan Khan	...	
Mooltan	23	Mooltan	...	
Central Provinces.				
Raipur	1	Raipur	...	None.
Nagpur	2	Nagpur	...	
Narsinghpur	3	Narsinghpur	...	
	4	Chhindwara	...	
	5	Gadarwara	...	
Hoshangabad	6	Harda	...	
Sambalpur	7	Sambalpur	...	

* In places marked with an asterisk the Vaccination Act was introduced in 1897.

Appendix B to Section VII —*continued.*

Lits of towns and rural tracts where the Compulsory Vaccination Act is in force.

Province and district.		Town.		Rural tract.
Central Provinces—*contd.*				
Damoh	8	Damoh	...	None.
	9	Hatta	...	
Balaghat	10	Burha	...	
	11	Lalbara	...	
	12	Waraseoni	...	
	13	Katangi	...	
Chhindwara	14	Chhindwara	...	
Burhanpur	15	Burhanpur	...	
Bhandara	16	Bhandara	...	
	17	Pauni	...	
	18	Tumsar	...	
Bilaspur	19	Bilaspur	...	
Saugor	20	Saugor	...	
	21	Rehli	...	
	22	Khurai	...	
	23	Deori	...	
	24	Garhakota	...	
Nimar	25	Khandwa	...	
Betul	26	Badnur	...	
	27	Betul	...	
	28	Multai	...	
Wardha	29	Wardha	...	
Berar.				
Amraoti	1	Amraoti	...	None.
	2	Amraoti Camp	...	
	3	Karanja*	...	
Akola	4	Akola	...	
	5	Khamgaon	...	
	6	Shegaon	...	
	7	Akot	...	
Basim	8	Basim	...	
Wun	9	Yeotmal	...	
Buldana	10	Buldana	...	
Ellichpur	11	Ellichpur City	...	
	12	Ditto Civil Station	...	
Madras.				
Bellary	1	Adoni	...	None.
	2	Bellary	...	
Anantapur	3	Anantapur	...	
Vizagapatam	4	Anakapalle	...	
	5	Bimlipatam	...	
	6	Vizagapatam	...	
	7	Vizianagram	...	
Ganjam	8	Berhampur	...	
	9	Chicacole	...	
	10	Parlakimedi	...	
Kistna	11	Bezwada	...	
	12	Guntur	...	
	13	Masulipatam	...	
Malabar	14	Calicut	...	
	15	Cannanore	...	
	16	Cochin	...	
	17	Palghat	...	
	18	Telichery	...	
South Arcot	19	Chidambaram	...	
	20	Cuddalore	...	
	21	Tiruvannamalai*	...	
Godavari	22	Cocanada	...	
	23	Ellore	...	
	24	Rajahmundry	...	
Coimbatore	25	Coimbatore	...	
	26	Erode	...	
	27	Karur	...	
Chingleput	28	Conjeveram	...	
	29	Chingleput*	...	
Nilgiris	30	Coonoor	...	
Cuddapah	31	Ootacamund	...	
	32	Cuddapah	...	
Madura	33	Dindigul	...	
	34	Madura	...	
	35	Pireakulam	...	
	36	Palni	...	
North Arcot	37	Gudiyattam	...	
	38	Tirupati	...	
	39	Vellore	...	
	40	Walajapet	...	

Province and district.		Town.		Rural tract.
Madras—*contd.*				
Tanjore	41	Kumbaconam	...	None.
	42	Mannargudi	...	
	43	Mayaveram	...	
	44	Negapatam	...	
	45	Tanjore	...	
Kurnool	46	Kurnool	...	
Madras	47	Madras	...	
South Canara	48	Mangalore	...	
Nellore	49	Nellore	...	
	50	Ongole	...	
Tinnevelly	51	Palamcottah	...	
	52	Tinnevelly	...	
	53	Srivilliputtur	...	
	54	Tuticorin	...	
Salem	55	Salem	...	
	56	Tiruppattur	...	
	57	Vaniyambadi	...	
Trichinopoly	58	Srirangam	...	
	59	Trichinopoly	...	
Coorg.				
Coorg	1	Mercara	...	None.
	2	Virajendrapet	...	
	3	Somvarpet	...	
	4	Fraserpet	...	
	5	Kodlipet	...	
Bombay.				
Bombay	1	Bombay City	...	None.
Karachi	2	Karachi	...	
Lower Burma.				
Akyab	1	Akyab	...	None.
Hanthawady	2	Rangoon	...	
Bassein	3	Bassein	...	
	4	Ngathainggyaung	...	
Myaungmya	5	Myaungmya	...	
Henzada	6	Henzada	...	
	7	Myanaung	...	
	8	Zalun	...	
	9	Kyangin	...	
Thayetmyo	10	Thayetmyo	...	
Toungoo	11	Toungoo	...	
Tavoy	12	Tavoy	...	
Shwegyin	13	Shwegyin	...	
Prome	14	Prome	...	
Sandoway	15	Paungde	...	
Thongwa	16	Sandoway	...	
Mergui	17	Maubin	...	
Amherst	18	Yandoon	...	
Pegu	19	Mergui	...	
Kyaukpyu	20	Moulmein	...	
	21	Thaton	...	
Tharrawaddy	22	Pegu	...	
	23	Ramree	...	
	24	Kyaukpyu	...	
Thaton	25	Thonze*	...	
	26	Gyobingauk	...	
	27	Letpadan*	...	
	28	Kyaikto*	...	
Upper Burma.				
Mandalay	1	Mandalay	...	None.
Myingyan	2	Myingyan	...	
	3	Pagan	...	
Minbu	4	Salin	...	
	5	Minbu	...	
Yamethin	6	Pyinmana	...	
	7	Yamethin	...	
Pakokku	8	Pakokku	...	
Magwe	9	Toungdwingyi	...	
Lower Chindwin	10	Monywa	...	
Yeu	11	Yeu	...	
Sagain	12	Sagain	...	
Shwebo	13	Shwebo	...	
Bhamo	14	Bhamo	...	
Kyaukse	15	Kyaukse	...	

* In places marked with an asterisk the Vaccination Act was introduced in 1897.

Appendix B to Section VII—*concluded.*

List of Cantonments where the Compulsory Vaccination Act is in force.

Command.		Cantonment.	Command.		Cantonment.
Bengal .	1	Dum-Dum.	Punjab .	5	Dagshai.
	2	Barrackpore.		6	Murree.
	3	Cuttack.		7	Dharmsala.
	4	Dinapore.		8	Dalhousie.
	5	Dibrugarh.		9	Jullundur.
	6	Shillong.		10	Mian Mir.
	7	Allahabad.			
	8	Benares.	Madras .	1	Madras.
	9	Agra.		2	Vellore.
	10	Cawnpore.		3	Vizianagram.
	11	Meerut.		4	Cannanore.
	12	Delhi.		5	Trichinopoly.
	13	Dehra Dun.		6	Bangalore.
	14	Chakrata.		7	Bellary
	15	Roorkee.		8	Coonoor.
	16	Fyzabad.		9	Belgaum.
	17	Landour.		10	Secunderabad.
	18	Jhansi.		11	St. Thomas' Mount.
	19	Moradabad.		12	Poonamallee.*
	20	Bareilly.		13	Pallaveram.*
	21	Sitapur.		14	Calicut.*
	22	Muttra.		15	Malapuram.*
	23	Fatehgarh.		16	Quilon.*
	24	Shajahanpur.		17	Trichur.*
	25	Nani Tal.		18	Rangoon.
	26	Lucknow.		19	Thayetmyo.
	27	Almora.		20	Moulmein.
	28	Ranikhet.		21	Bhamo.
	29	Lansdowne.		22	Myingyan.
	30	Gorkhpur.		23	Shwebo.
	31	Jubbulpore.		24	Meiktila.
	32	Saugor.		25	Mandalay.
	33	Pachmarhi.		26	Port Blair.*
				27	Southern Shan States.*
Punjab .	1	Umballa.		28	Maymyo.*
	2	Rawalpindi.			
	3	Kasauli.	Bombay .		None.
	4	Subathu.			

* In places marked with an asterisk the Vaccination Act was introduced in 1897.

Appendix C to Section VII.

Extract from Appendix B—6 of the Report of the Medical Officer to the Local Government Board for 1897-98.

(*a*) *Vaccination of the Calf.*

A calf of suitable age (three to six months) having been placed in quarantine for a week and its health having been ascertained to be satisfactory, it is transferred to the Vaccine Establishment. Such a calf having been strapped to a large tilting table, the lower part of the abdomen, as far forward as the umbilicus, is carefully shaved. This shaved area is washed, first, with a solution of carbolic acid, and, afterwards, with water recently sterilized by boiling. The calf is then vaccinated with glycerinated calf lymph previously ascertained, by use of the method of plate cultivation, to be free from extraneous organisms. With a sharp scalpel, dipped from time to time in the glycerinated lymph, parallel linear incisions are made, which penetrate the epidermis and open up the rete Malpighii, if possible, without drawing blood. The incisions are usually made about 4 inches long and half an inch apart. As they are made, additional glycerinated lymph is run in along the whole length of the line by means of some blunt sterilized instrument such as a small bone spatula. It is desirable to inoculate the incision immediately it is made, otherwise the lips of the wound are apt to swell and to close the opening.

(*b*) *Collection of the Vaccine Material.*

After five days (120 hours) the vaccinated surface of the calf's abdomen is thoroughly washed with soap and warm water gently rubbed over it by the clean hands of the operator; then it is cleansed with water recently sterilized by boiling. The site of each incision should at this stage (120 hours) present one long continuous vesicle. The skin having been put firmly on the stretch, the vesicles and their contents are removed with a sterilized Volkmann's spoon, each line being thus treated in turn and scraped once only, care being taken that the edge of the spoon does not touch the neighbouring lines. In this way the vesicular pulp is removed without admixture of blood. The total vesicle pulp obtained by the above procedure is received into a weighed sterilized bottle. A calf vaccinated in the manner described should yield 18 to 24 grammes of vaccine lymph pulp.

(*c*) *Glycerination of the Vaccine Material.*

The bottle containing the above lymph is taken to the laboratory and the exact weight of the material ascertained. The pulp is next transferred to a sterilized mortar and rubbed up with a sterilized pestle. The mortar is covered, so that the handle of the pestle only projects above the cover. It is important that the pulp be finely rubbed up before any glycerine is added, though if the material should be rather dry, as sometimes happens, a few drops of sterilized distilled water may be added in the process of rubbing. To this triturated lymph pulp there is now added 6 times its weight of a sterilized mixture of 50 per cent. pure glycerine in distilled water. The addition is made little by little, thus producing eventually a fine and intimate emulsion. At this stage a loop full of the emulsion is withdrawn with a sterilized platinum needle and agar-agar plates are established.

(*d*) *The storage of the Emulsion.*

The emulsion, as soon as it is complete, is transferred by means of a sterilized pipette to small sterilized test tubes, each capable of holding 3 or 4 c. c. Each tube is completely filled, so that very little air is in contact with the emulsion. It is plugged with a sterilized cork, sealed with melted paraffin, which has been rendered aseptic with carbolic acid, and placed in a dark, cool cupboard. Week by week, subsequently, agar-agar plates are established from the emulsion, and with the result that the number of colonies diminish week by week in the several plate cultures, till, almost invariably at the end of a month, the plates show no colonies at all.

The above statement is based on a large series of agar plate cultures established from the glycerinated vaccine emulsions obtained from seventeen calves. The number of times that the operation of pouring plates inoculated with samples of these emulsions was performed was about 250. The tubes containing the emulsion were always

thoroughly shaken before the inoculation of plates was made, so that their contents might become thoroughly mixed. In many instances several series of plates were established from particular tubes of the same emulsion to ascertain if the action of the glycerine had been exerted equally upon all the contained pulp material. In one case 12 tubes were repeatedly examined in this way from one lymph series. It was found that the colonies that developed from the different tubes were of the same kind and approximately of the like amount in the several tubes ; and, further, the gradual elimination of extraneous organisms, demonstrated by the plate cultures made week by week, was shown to be parallel in all the 12 tubes. When the stage is reached at which agar plates show no growth after inoculation with emulsion, the process is repeated, the inoculation of the agar plate being made in each instance with a large quantity of the emulsion three to six loopfuls. As a rule, these inoculations of the agar with large amounts of emulsion agree with the previous result; the plates show no development of colonies. Occasionally, however, in these circumstances, a few colonies develope, in which case further storage of the emulsion is necessary until additional tests show that the elimination of extraneous microbes is complete. If the lymph originally contained considerable quantities of *bacillus subtilis* or its spores, or *bacillus mesentericus vulgatus*, or *ruber*, or their spores, the process of elimination tends to be prolonged, and the persistence of these organisms is best demonstrated by inoculating large quantities of the emulsion into flasks of nutrient beef broth. In these cases, however, the development of the micro-organisms is always found to be, after a time, greatly retarded, showing that the glycerine, though acting slowly, has nevertheless exerted on them an injurious influence. These highly resistant microbes may, later experience has shown, be practically excluded from the lymph by so dealing with the calf that the vaccinated surface of its abdomen is surrounded by a considerable margin of shaved skin, and by scrupulous attention to the cleansing of the vaccinated area at the time of the collection of the lymph pulp. When this is done, it is found that a whole tube, containing about 3 c. c. of glycerinated lymph, may, after four week's storage, be poured into a flask containing sterile nutrient beef broth without setting up in the latter any growth at all.

All the lymph experimented with had descended calf by calf from one and the same source, and the organisms found in the several successive samples, as soon as they were glycerinated, closely correspond in the different series. Nevertheless, as time went on a difference was observed in the kind of organisms which were predominant. Thus, in previous reports * it was shown that the *staphylococcus cereus albus* and *staphylococcus cereus flavus*, neither of which liquefy gelatine, were then most common. In the later samples of current calf lymph of like descent it was found that the *staphylococcus pyogenes aureus*, a yellow coccus which liquefies gelatine, predominated; that the *staphylococcus albus* (*liquefaciens*) was comparatively rare ; and that the *staphylococcus cereus albus* (*non-liquefaciens*) was less common than before. In none of the samples examined has the presence of a bacillus, corresponding to the "coli form" described by Lemoine† or of any variety of *Proteus*, been demonstrated.

(*e*) *Storage in Capillary Tubes.*

When it has been ascertained that a given stored emulsion affords no growth on ordinary culture media, it is, if required for use in vaccination, drawn up into sterilized capillary tubes. These tubes are sealed in a gas flame or spirit lamp flame, and are stored in the cool chamber until distributed. Great care is required in the sealing of the tubes in order to prevent any overheating of the contained emulsion.

It has been matter of experience, and this is in accordance with that of other observers, that glycerinated lymph tends to lose its proper efficacy sooner when stored in capillary tubes than when retained in the larger tubes, into which it is the practice, in the first instance, to place it. From some recent experiments upon this point thereis reason to think that deterioration in capillary tubes of glycerinated lymph may result from undue contact of the tube with the gas flame in the act of sealing, and that it can be obviated by taking greater precautions in the sealing of these tubes.

* Report of the Medical Officer to Local Government Board, 1895-96.

† Contribution à l 'étude bactériologique de la pulpe vaccinale glycerinée.

SECTION VIII.

SANITARY WORKS—MILITARY.

249. The net expenditure on Military Works in India during 1897-98 amounted to R81,40,534, as compared with R89,01,312 in 1896-97.

Expenditure on Mititary Works during 1897 98.

Details of sanitary works executed in cantonments are given in Tables V and XXX of the Statistical Series appended to this report, in which are also shown the sanitary defects of the stations which were most unhealthy.

250. The works executed during 1896-97 for the health and comfort of the European and Native troops in India are summarized below :—

Details of Military Works in 1896-97.

Accommodation for British Troops.

Sitapur.—The scheme for reconstruction and restoration of buildings, including new buildings to accommodate a head-quarters wing of a British Infantry battalion, was proceeded as far as funds were available.

The works completed during the year comprised the restoration of No. 52 married men's barrack, and a cook-house for No. 52 barrack.

The remodelling of No. 49 staff sergeants' quarters was put in hand and about one-third done by close of the year.

Dinapore.—The construction of new barracks for the accommodation of a head-quarters wing of British Infantry was proceeded with, Nos. 1 and 2 barracks with their subsidiaries being completed and made over to the military authorities for occupation. Nos. 4 and 5 were begun, but it was found impossible to complete them before the end of the year, as it was difficult to obtain sâl wood of the requisite scantlings in sufficient quantities owing to the Nepal Forests being closed.

Lebong.—In connection with the project for accommodating a detached wing of British Infantry, the following buildings were completed :—

I. Guard-room.
II. Furniture store, office, and chowkidar's hut.
III. Guard-room lavatory.
IV. No. 4 single quarter-company huts for 1 sergeant and 22 men.
V. Orderly-room.
VI. Latrine for quarter-guard.
VII. Five urinals of two compartments each for single men's barracks.
VIII. Lavatories for single men's barracks.
IX. Urinal for quarter-guard.
X. Ditto for orderly-room.
XI. No. 9 half company hut for 1 sergeant and 42 men.
XII. Two cook-houses for single men's barracks.
XIII. One latrine for single men's barracks.
XIV. Institute, complete, except in respect of Theatre and Games room, which were in progress.
XV. Quartermaster's store.
XVI. Urinal for liquor bar.

and the following buildings were in hand :—

I. Nos. 10 and 11 half company huts. The former very nearly completed, the latter about half done.
II. Eight quarters for married men and Class C sergeants, about half done.
III. Five quarters for married men and Class C sergeants, very nearly completed, the provision of only stoves being required.
IV. Armourer's shop, only boiler and trough required to complete.
V. Magazine and enclosure wall completed to roof level.
VI. Sergeants' mess nearly completed.
VII. Two lavatories for single men's barracks.
VIII. Block of quarters for two Class B sergeants.

Saugor.—A new barrack for 16 men in Royal Artillery lines was commenced and about one-third completed.

Chakrata.—For the hut accommodation at Kailana the following were completed :—

Quarter-guard and cells.
Magazine.

Lavatory ablution rooms, and work was in progress on the Institute buildings and road to the huts.

The reconstruction of the British Infantry School at Gobrana, in progress from 1895-96, was completed.

Ranikhet.—In connection with the hut accommodation at this station six quarters for Class B sergeants, alterations to magazine, provision of iron tanks for cook-houses, and lavatory for the quarter-guard were completed ; and the construction of quarters for two warrant officers was in progress.

Muttra.—The scheme for restoration of the British Cavalry building at this station was taken in hand, a new barrack for two sergeants and 38 mens, and the remodelling of No. 5 barrack being completed. Work on the subsidiary buildings for these two barracks and the construction of a new barrack for the band were in progress at close of the year.

Jhansi.—In connection with the scheme for restorations of the British Infantry barracks, Nos. 1 and 5 barracks were completed, and occupied, by the troops.

Meerut.—The new barrack for two sergeants and 40 men in the rocket troop lines, commenced in 1895-96, was completed.

Cloth ceilings were provided in married men's barracks.

Agra.—The addition of a verandah to No. 1 double-storied barrack for Royal Artillery in the Fort was about half done.

Subathu.—The new hut barrack for two sergeants and 24 men, commenced in 1895-96, was completed.

Solon.—The British Infantry Institute in progress from previous year was completed.

Dalhousie.—The Institute buildings for the convalescent depôt commenced in 1895-96 were not quite completed at close of year.

Cherat.—Eight new cook-houses and seven lavatories for single men were nearly completed at the end of the year.

Quarters for 3 Class B and 11 Class C sergeants were completed.

Kuldanna.—Certain additions and alterations to Nos. 69 and 73 barracks to adapt them for married men's quarters were carried out.

Lavatory accommodation for 7 companies was provided.

Gharial.—Two more barracks for single men were built. Lavatories, latrines and cook-houses for single men and 10 cells were completed.

Rawalpindi.—For the hut accommodation at West Ridge the following buildings were completed :—

I. Guard-rooms and cells for 4 Mountain Batteries.
II. Latrines for the warrant officers, sergeants and married men of 2 battalions of British Infantry and 3 Mountain Batteries.

And the following buildings were put in hand, but not completed :—

I. Workshops and store rooms for 4 Mountain Batteries.
II. Cook-houses for two battalions of British Infantry.

Bombay.—Accommodation for gunners at Colaba Battery was commenced and practically completed.

The new combined school for Royal Artillery and British Infantry and the reconstruction of provost cells at Colaba were completed.

Quetta.—A new military prison was commenced and completed with the exception of clearance of site and making roads.

Bangalore.—Towards providing additional accommodation for single men in British Infantry lines by the conversion of married men's barracks, Block No. 76 was quite, and Block No. 79 very nearly, completed.

The work of extending the single men's barracks in the British Cavalry lines was about two-sevenths done, Block No. 4 being nearly completed, and work on No. 3 Block partly done.

Poonamallee.—The new barrack for 200 men was completed in 1894-95.

Wellington.—A double company cook-house for No. 8 and lavatories for Nos. 9, 10, and 11 married men's barracks were constructed.

Accommodation for Native Troops.

Lansdowne.—For 2-3rd Gurkhas, the parade ground was completed.

For the 9th Gurkhas, 4 double company armouries, solitary cells, and a rifle range were provided.

A rifle range was also constructed for the 39th Garhwal Regiment, and the provision of a parade ground was in progress.

Bhagsu.—In connection with the accommodation for the 1-1st Gurkhas, the following were completed during the year :—

I. Converting certain buildings into authorized public buildings.
II. Demolition of certain buildings.
III. Closing verandahs of Nos. 1 and 2 barracks.
IV. Constructing movable iron latrines.
V. Converting No. 5 (late British Infantry Institute.)
VI. Contagious diseases ward.
VII. Military Works Department buildings.

and work was in progress on

I. Parade ground, nearly done.
II. New roads, nearly done.
III. Drainage.
IV. Rifle range.

Bakloh.—The parade ground of the 2-4th Gurkhas was improved by the removal of a rock from its surface and the correction of the slopes.

Changlagali.—A general guard-room for native guards was erected.

Aden.—The provision of additional accommodation for one native officer and 46 rank and file of the Sappers and Miners was completed.

Kirkee.—The provision of movable latrines for the Sappers and Miners was in progress.

Fort Sandeman.—The guard-room, stores and cells for Native Infantry were completed.

Bangalore.—For the Native Infantry regiment on the Arab lines plain, the guard-room, armouries, armourer's shop and cells were practically completed.

HOSPITALS.

Lebong.—A cook-house and servants' quarters for medical subordinates were completed, as also a block of quarters for eighteen single men of the hospital native establishment. The block of quarters for 11 married servants and a female sweeper, and quarters for the doolie bearers, were in progress.

Lucknow.—The project for the extension of the station hospital, was begun and a little more than half completed.

Alipore.—Quarters were constructed for the authorised native establishment.

Chowbuttia.—Towards completing the station hospital, the contagious diseases wards, attendants' room, cook-house and quarters for 11 servants were completed, and the double-storied hospital was in progress.

Ranikhet.—Quarters for medical subordinates were completed.

Jhansi.—The new station hospital was completed.

Lansdowne.—For the 9th Gurkhas the following were completed :—

I. Hospital for 52 patients.
II. Hospital guard-room.
III. Hospital servants' quarters.
IV. Mortuary.
V. Infectious diseases ward.

Dalhousie.—The conversion of Nos. 1 and 2 depot barracks into station hospital was completed, and quarters were constructed for four Lady Nurses.

Dagshai.—Additional accommodation for 12 beds in the station hospital was nearly completed.

Ferozepore.—A hospital was erected in the Fort.

Kasauli.—A ward for infectious cases was constructed.

Peshawar.—For the station hospital, a contagious diseases ward and a laundry were constructed.

Quarters for the hospital assistants and hospital servants of native corps were completed.

Rawalpindi.—The construction of contagious diseases ward and additions to officers' hospital at station hospital were carried out, and a cloth ceiling was provided in No. 73 Block.

Attock.—A new hospital for native troops, with subsidiary buildings, has been completed.

Campbellpore.—A hospital for native followers was built.

Sialkot.—A followers' hospital with subsidiary buildings was constructed.

Cotaba.—The conversion of the Morley Hall into a hospital for soldiers' families was nearly completed.

Poona.—Work was in progress on reconstructing No. 8 servants' quarters at the section hospital, Wanowrie.

Aden.—In connection with the new station hospital, good progress was made with the main building to accommodate 70 patients, and with the subsidiary buildings.

Quetta.—Quarters with out-offices for five 2nd class assistant surgeons were constructed.

Secunderabad.—In connection with the extension of the station hospital, two new blocks for 30 beds each, assistant surgeon's quarters with out-offices, quarters for hospital servants, and hospital enclosure wall were in progress.

Bangalore.—The extension of the station hospital, commenced last year, was completed.

Wellington.—Towards completing the requirements of the station hospital, the mortuary, cook-house, and administrative block were completed. The extension of No. 24 building and the construction of the new wards was in progress.

Fort St. George.—The new detention ward was begun and about one-fourth completed. Work was delayed owing to late receipt of stores from England.

Officers' Quarters.

Baxa.—Quarters for the commandant and for married officers and their subsidiary buildings were in progress.

The additions and alterations to the officers' mess and its out-buildings were practically completed.

Chakrata.—Quarters and out-offices for six subalterns at Gobrana were completed.

For the hutted camp at Kailana, quarters and out-offices for the Officer Commanding and for 5 captains were completed.

Lebong.—The following were completed:—

I. Block of quarters for 2 captains.
II. Out-offices for No. 2, double subalterns' quarters.
III Out-offices for Nos. 4 and 6, captains' quarters.
IV. Out-offices for No. 5, subalterns' quarters.
V. Cook-house for 8 subalterns' quarters.
VI. Quarters for 6 subalterns.

and the following were in progress:—

I. Officers' mess.
II. Quarters for mess servants.
III. Block for double captains' quarters.

Cherat.—Two blocks of officers' quarters were completed.

Baragali.—A number of out-offices were constructed.

Gharial.—Quarters for a field officer, one captain and one subaltern with out-offices were completed. A verandah was added to the officers' mess-house, cook-house and store room.

Rawalpindi.—At West Ridge, quarters and out-offices for 4 captains and subalterns were constructed.

Water-supplies to Cantonments.

Allahabad.—The extension of the Municipal water-supply to the Fort and the construction of fire-tanks were completed.

Lebong.—The extension of the Municipal water-supply from the Chowrastha, commenced in previous year, was practically completed.

Lucknow.— The works in progress from 1895-96 were completed.

Fort William.—The remodelling of the distribution scheme of the drinking water-supply was completed.

Barrackpore.—The extension of the water-supply was nearly completed.

Meerut.—The substructure of the raised reservoir was in progress.

Chakrata.—The extension of the supply to Kailana neck was in progress, and about two-thirds done.

Agra.—The water-supply to the cantonment and Fort was completed. Work on laying it on to the barracks and cook-houses was in progress.

Jhansi.—The water-supply to the Fort almost completed.

Lansdowne.—The water-supply to the lines of the 9th Gurkhas was completed. Its extension to the lines of the 39th Garhwal Regiment was in hand.

Dehra.—The extension of the water-supply from the Gurkha lines to those of the Mountain Battery was in progress. The supply to the Body-guard lines was completed.

Bareilly.—A trial well was being sunk in connection with the projected piped water-supply.

Dalhousie.—The water-supply to the cantonment was completed.

Subathu.—In view of the epidemic of enteric fever and the defective nature of the existing water-supply, it was decided to bring water from a spring 1¾ miles out on the Dharampur road in pipes for drinking purposes only. This has been completed satisfactorily.

Preliminary investigations were put in hand for a permanent piped water-supply to this cantonment.

Fort Lahore.—R1,522 were spent on collection of materials. The work is in abeyance until a final scheme has been sanctioned.

Umballa.—In connection with the contemplated improvements to water-supply of this cantonment, a new well was begun after a trial boring, at a site south of the existing head works, in order to ascertain whether this site would be suitable as the source of the increased supply that is necessary. The work has been completed with satisfactory results.

Rawalpindi.—A few additional appliances for extinguishing fires were provided. Water pipes were laid on to the commissariat dairy. Arrangements were taken in hand for acquiring a piece of land to ensure better conservation of the water and to admit of additional wells being sunk if found necessary.

Baracao.—A well near the encamping ground on the Murree cart road was completed.

Sialkot.—Connected with the contemplated project for a supply of pure water from Chowichak in Jammu territory, wells were dug for obtaining samples of water for analysis and to gauge the quantity.

Peshawar.—Water pipes were laid on to "D" Squadron in the Native Cavalry lines and a third hydrant for extinguishing fires in the Fort was provided.

Nowshera.—Preliminary operations for a new piped water-supply were carried out.

Murree Hills.—A new reservoir was constructed at Kashmir Point, one was also put in hand at Thobba, and at Kuldanna the roofing of the reservoir was practically completed.

Butcher's Island, Bombay.—The new masonry tank was put in hand and nearly half done.

Aden.—The water-supply at the Royal Artillery tank at the Crater was improved.

Karachi.—The improvement of the water-supply to the station hospital, commenced in 1895-96, was completed.

Bangalore.—A scheme for the temporary water-supply to the Civil and Military station from the Durbar's Hessarghatta supply was completed.

For the permanent supply from Hessarghatta, nothing was done beyond collecting materials, as the project was not sanctioned till after close of the year.

Secunderabad.—This scheme was practically completed. The testing, etc., of the pipe line and a few other minor items only remaining to be done.

Fort St. George.—The renewal of the main from the "seven wells" was completed.

Other Cantonment Works.

Jallapahar.—Work was in progress on the construction of a revetment wall at a large slip below the hospital.

Dum-Dum.—The improvement of the drainage of this cantonment was continued and nearly completed.

Barrackpore.—The metalling of the road to the Jafferpore rifle range was completed.

Ballygunge.—The filling in of two tanks in the Viceroy's Body-guard lines was practically completed.

Lansdowne.—The roads in connection with the housing of the 9th Gurkhas were completed.

Meerut.—A new road was constructed in the Native Cavalry lines.

Dalhousie.—The road from Mankot to Banikhet was improved.

Murree.—The enlargement and improvement of the parade and recreation ground was continued and nearly completed.

Rawalpindi.—The *kutcha* road leading from the Saddar Bazaar railway crossing to the Commissariat-Transport lines was metalled.

Aden.—Work was commenced on the approach road to the proposed new married men's quarters for the Royal Artillery at Steamer Point.

Quetta.—A *kutcha* road leading from Gloster road to the hospital for native troops was metalled.

Fort Sandeman.—A *bund* was built to protect the officers' quarters from floods from the hills to the east of the cantonment.

Bangalore.—The construction of drains in the North Native Infantry lines at Byderhalli and the improvement of the drainage in the British Cavalry lines, both in progress from the previous year, were completed.

SECTION IX.

CIVIL SANITARY WORKS.

Bengal.

251. As has been explained in previous reports, the figures regarding expenditure on sanitary improvement in Bengal have, since 1895 when the change was introduced, had reference to the financial year ending the 31st of March.

In 1896-97, the number of municipalities in Bengal, excluding Calcutta, was 148, an increase of three as compared with the previous year, but the total income, including opening balances in both years, fell from R46,02,679 in 1895-96, to R43,49,548; this falling off was, however, almost entirely due to diminished borrowing from Government for capital expenditure. Of the total income about 46·76 per cent. was devoted to original and recurring sanitary works, 10·03 per cent. to roads, 4·49 per cent. to preservation of the public safety, and 28·61 per cent. to other requirements. The expenditure on water-supplies was R5,44,984, as compared with R9,96,441 in 1895-96, the large decrease being due to diminished capital outlay. On drainage, expenditure fell, for the same reason, from R1,49,559 to R1,21,060. On conservancy, there was an increase in expenditure from R8,88,026 to R9,21,519, due to the purchase of land for trenching purposes, and to the adoption of special measures for cleansing towns as a precaution against the invasion of plague.

The average proportion of municipal income expended on original sanitary works was only 3·70 per cent., against 5·03 per cent. in 1895-96. The reduction was general, for in 1895-96 upwards of 10 per cent. of their income was thus expended in seventeen towns, and in 1896-97 in only fifteen, including Meherpur (34·75 per cent.), Netrakona (32·43) and Patuakhali (26·86); while the number of municipalities, in which nothing whatever was so spent, rose from 28 to 37, and included such important places as Hooghly, Berhampur, Bettiah and Ranigunj.

The average proportionate expenditure on recurring sanitary works, however, rose from 37·64 to 40·20 per cent. of income, ranging from 65·14 per cent. in Jangipur, in the Murshidabad district, to 13·14 in Santipur in Nadia, and 8·92 in Netrakona in Mymensingh.

The expenditure of public funds on rural sanitation increased considerably, from R1,42,012, in 1895-96, to R4,00,272; and there was a still more remarkable and very gratifying increase in the amount provided by private benevolence which rose from R4,94,131 to R11,72,068. Of this sum, R1,57,770 was spent on the construction of seven *bunds* in Darbhanga, and the greater part of the remainder was devoted to the excavation of tanks, works which not only furnished work for labourers in a year of famine, but will tend to the permanent improvement of the supply of water in the province.

The only large project completed during the year was the extension of the Bhagalpur water-works, at a cost of R2,70,955.

Sanitary Board.

252. The constitution of the Board, and the duties assigned to it, remained unchanged. Owing to the absence of members from head-quarters there was the usual difficulty in

arranging for meetings, and only two were held during the year; but in order to prevent the delay of business, papers were circulated among the members.

The following were the principal subjects of discussion at the two meetings of the Board :—

(1) The drainage and sewerage of Calcutta and the South Added Area.

(2) The drainage and sewerage scheme for Howrah; the Board considered that the sewerage scheme should be completed before the drainage works were commenced.

(3) The unfiltered water-supply of Calcutta and the South Added Area; the Board did not receive the complete papers until the work was considerably advanced and simply recorded their approval of the work, as, at the stage reached, no advantage could result from criticism of the plans and estimates.

(4) Bhagalpur water-works.

(5) Berhampur water-works.

(6) Darjeeling water-supply.

(7) The septic tank system of sewage disposal. The Sanitary Commissioner suggested that the Board should recommend Government to join with the Calcutta Corporation in making an experimental tank and filter; he was asked to submit an official communication on the subject for the consideration of the Board.

The principal estimates prepared were the following :—

(1) A water-supply scheme for the Garden Reach Municipality, to cost R50,000.

(2) Remodelling the Darjeeling water-supply scheme, at a cost of R1,10,000.

(3) A scheme for flushing the road-side drains of the Patna Municipality, to cost R56,000. The Municipality being unable to afford such a large sum, a partial scheme was prepared to provide for the most offensive drains, but the Municipal Committee were enjoined to make every effort to provide funds for the whole scheme.

Estimates and plans were considered for :—

(1) The extension of the unfiltered water-supply in the town and suburbs of Calcutta.

(2) The supply of filtered water to Pabna.

(3) The construction of two tanks in Khulna.

(4) A drainage scheme for Baranagar and South Dum-Dum.

(5) The Cossipore and Chitpur drainage project.

(6) The drainage of Dainhat.

(7) The drainage and sewerage of Howrah.

An interesting experiment was carried out at Patna under the superintendence of the Board's Engineer. The Municipal Commissioners were desirous of ascertaining whether it would be possible to obtain water from the old bed of the river Sone, and so avoid resorting to the Ganges for a supply. A series of borings were made to the west of Bankipore, which shewed that a great thickness of river sand was to be found at a few feet from the surface, and that water was standing from 10 to 12 feet below ground level. A masonry well was sunk from which water was continuously pumped for ten hours daily for more than a month. The results shewed that an ample supply of pure

water could be obtained, and the Municipality were requested to supply a map of the town and certain information to enable the Board to prepare an estimate.

In connection with the biological treatment of sewage, a coke-breeze filter for urine and sullage water, which had been working at Dacca during the previous year, proved so satisfactory, that a circular was issued bringing the method to the notice of all municipalities and local officers. It is hoped that the matter will receive the attention that its importance deserves.

The Board furnished advice on a number of miscellaneous questions submitted to them by Government and various local bodies, and their Sanitary Engineer made numerous valuable inspections.

Assam.

253. The total income of the municipalities, towns, stations and unions in Assam in 1897, was R2,58,169 as compared with R2,62,416 in the previous year. The amount spent on sanitary works proper was R1,13,543, or 43·98 per cent. of income, against 46·10 per cent. in 1896. The highest percentage of income set aside for sanitation was 73·89 in Gauhati, the lowest, 21·69 in Sylhet. No important sanitary work was put in hand during the year on account of lack of funds, but efforts were made to improve existing sources of water-supply and arrangements for conservancy. The protected water-supplies at Gauhati and Shillong suffered considerable damage during the earthquake, but they were speedily put in order again, although the pumping machinery at Gauhati is old and worn-out and will soon require to be renewed. In rural areas the principal improvements consisted in the excavation of tanks and the repair of wells; a few small drainage works were also undertaken. It is satisfactory to learn that Local Boards, generally, are alive to the importance of such matters and are willing, when they can, to spend money on them.

The Chief Commissioner had under consideration a draft Village Sanitary Regulation, prepared by the Sanitary Board on the lines of the North-Western Provinces and Oudh Sanitary Act II of 1895; but rejected it on the ground that no Regulation of the kind is suitable to the sparsely populated hills and jungles of Assam.

Sanitary Board.

254. No meeting of the Sanitary Board was held, but the opinions of members on all important sanitary matters under discussion were obtained unofficially.

North-Western Provinces and Oudh.

255. The income of the 103 municipal towns in these provinces during the financial year 1896-97, excluding opening balances, was R41,52,909, nearly eleven and a half lakhs less than in the previous year; and the expenditure on sanitary works fell from R24,63,595 to R21,79,902. There was a reduction in the expenditure under all main heads, except conservancy. On water-supply R8,90,523 were spent, as compared with R10,97,305; on drainage R3,15,108, against R4,30,079; on markets and slaughter-houses R35,843 against R47,723; on conservancy the sum advanced from R8,88,488 to R9,38,428.

No new work of any magnitude was begun during the year, nor was any completed, except the extension of the Allahabad water-supply to Daraganj; and the following notes refer to the progress of existing works during the year ending 31st March 1898.

At Agra, the daily average consumption of filtered water fell from 1,520,115 to 1,338,177 gallons, equal to 7·89 gallons per head per diem of the census population; in the cantonment the daily average consumption of filtered water

rose from 164,702 gallons to 185,718. The maximum consumption in the city and cantonment on any one day was 2,325,991 gallons. The engines and filters are designed to meet a maximum daily demand of only 1,500,000 gallons, and although, by working extra time, the engines can pump up a larger quantity, the area of the filters is too small to allow its being sufficiently slowly filtered. There is a peculiar danger attending over-rapid filtration at Agra, for the stream of the Jumna is very small during the hot weather and the water is liable to be very impure. The urgent necessity for the provision of an additional filter has been pointed out to the Municipal Board, but want of funds is in the way.

The actual cost of the filtered water was 1·80 anna per 1,000 gallons; but, calculated on the net expenditure, including interest and sinking-fund charges, the cost was 3·43 annas.

At Allahabad, notwithstanding the extension of the municipal mains to Daraganj, which derived its supply of water from the city water-works from October 1897, the consumption of filtered water fell from an average of 1,600,288 gallons a day to 1,425,164, between 8 and 9 gallons a head of the population. The falling off was due in part to the higher rates charged for water for use in gardens, in part to shortened hours of supply in the beginning of the year, but chiefly, it is satisfactory to note, to the prevention of waste.

At Benares, the daily consumption of water rose from an average of 1,768,394 gallons in 1896-97 to 1,905,216, equal to 9·05 gallons per head of the population.—Each thousand gallons cost 1·34 anna, not reckoning interest and sinking fund payments; if these are taken into account, the cost was 2·27 annas. The principal work in progress during the year was the construction of a raised reservoir for maintaining a constant supply. This reservoir is estimated to cost R79,362, and should have been finished in July 1897, but, owing to delay on the part of the contractors, it was not expected to be ready before the end of July 1898.

At Cawnpore, the daily consumption of water, increased slightly from 1,306,426, to 1,325,409 gallons, or 8·09 gallons per head. The receipts are still low as compared with other towns and the cost of the water is consequently high.

At Dehra Dun, the average daily supply was equal to 6 gallons per head. The supply was scanty during part of the hot weather, not due to failure of the spring, but to lack of supervision.

At Lucknow, the total quantity of water pumped into the mains was 346,581,925 gallons, of which 63,058,814 gallons were supplied to the cantonment. The average daily consumption in the city was 776,776 gallons, equal to 4·8 gallons a head, as compared with 2·95 in the previous year.

At Meerut, the average daily supply was 461,899 gallons, compared with 350,508 in 1896-97, or 6·3 gallons per head of the census population, against 4·55 in the previous year. The cost of delivery, excluding sinking-fund and interest charges, was 1·7 anna per 1,000 gallons, and it is expected, when the supply is extended to the cantonment, that this will not exceed one anna.

At Mussoorie, the daily average supply was equal to about 7 gallons a head.

At Naini Tal, the total quantity of water pumped was 6,192,830 gallons, costing about 17 annas a head of the population. Several improvements to the existing works were made during the year, and a detailed project of reconstruction and extension was prepared.

The water supplied to the towns generally during the year is reported to have been good, but at Agra, Allahabad and Lucknow, microbes, resembling that associated with the causation of enteric fever, were detected in the supply, and measures to remedy defects, which may have led to their presence, were in each case undertaken.

Progress was made with the Benares sewerage project, mainly in the construction of branch sewers in the unsewered area. The Bhilaru sewage shoot at Mussoorie was in course of construction, but work was unfortunately delayed by severe weather in the winter. The town of Jhansi was surveyed and a scheme for a supply of water to be pumped from wells was prepared. Surveys for the surface drainage of Deoband, Aligarh, Saharanpur and Fyzabad were in progress or completed.

Sanitary Board.

256. The members of the Sanitary Board met twice during the year, and the following were the more important matters discussed by them :—

1. Posting of Assistant Surgeons to districts as "Sanitary Assistants." The proposal was to post the Assistant Surgeons to ten selected districts, but it was resolved to recommend to Government that one Assistant Surgeon should be appointed for all three hill districts; that an Assistant Surgeon should be posted to Basti, and another to Azamgarh on account of the density of the population of these districts and the frequency in them of epidemic diseases, and that an Assistant Surgeon should be posted to each of the other seven districts specified by the Inspector-General of Hospitals—a distribution of the ten Assistant Surgeons to twelve districts.

It was further resolved,

(*a*) that in the remaining thirty-six districts, Hospital Assistants, selected on account of their knowledge of sanitation, should be appointed;

(*b*) that Assistant Superintendents of Vaccination could not be dispensed with if the registration of vaccine operations was to continue true and accurate, and that such posts should be given to selected vaccinators; and,

(*c*) that a lectureship on Hygiene should be established at the Agra Medical School.

2. A memorandum, prepared by the Sanitary Commissioner on the subject of the disposal of night-soil in municipalities, was circulated for the guidance of Municipal Boards.

3. The high rate of mortality in the town of Deoband was attributed to inefficient drainage, due to the want of a proper outfall under the North Western Railway, and the Railway authorities were addressed with a view to measures being taken to improve the outfall before the next rainy season.

4. The question of employing a mechanical engineer for the supervision of the pumping machinery of the various water-works was referred to the Municipal Boards concerned, to ascertain whether they would contribute towards his pay.

5. It was recommended to Government that, in view of the increase in the statistical work in Civil Surgeons' offices, each Civil Surgeon should be allowed an additional clerk.

Punjab.

257. The total income of the 31 municipal towns in the Punjab in 1897, including an opening balance of R10,92,066, was R52,95,950, a falling-off due to a smaller opening balance, of about a lakh as compared with the previous year. Of the total R2,17,183 were expended on water-supply, against R1,66,744 in the previous year; R1,02,847 on drainage and sewerage, against R1,26,608; and R6,35,308 on conservancy, against R5,83,174; the total sanitary charges aggregating R11,67,891, as compared with R12,36,690 in 1896.

The amount realized from the sale of manure and street sweepings was R1,49,120, an increase of upwards of R13,000 as compared with the previous year.

No new sanitary undertaking of any magnitude appears to have been begun during the year, but the Pind Dadan Khan water-supply scheme was completed; two storage tanks in connection with the Bhiwani water-supply project were excavated; and the water-supply of Kohat was extended to the cavalry lines, to the *katcheri* and to the charitable dispensary. Improvements to the Peshawar supply were effected; experimental borings in connection with the Amritsar water-supply scheme, now ready for submission to Government, were made; estimates for the Delhi water-supply extension scheme were submitted to the local Government; experiments were made in connection with a scheme for Mooltan; and a project to supply the cantonment of Mian Mir was being prepared.

A sum of R78,214 was spent on the Lahore sewage and drainage scheme; and a tramway project for the improvement of the scavenging of Lahore was being prepared for the approval of the Sanitary Board. A large egg-shaped intercepting sewer was constructed in Jhelum; and a number of drains were constructed in Peshawar City, at a cost of R10,633. Drainage schemes for Mooltan, Rawalpindi, Hazro, Delhi (Chandni Chauk), Balabgarh, Jagraon, Raikot, Fazilka, Muktsar and Batala were under preparation, and schemes for the drainage of Ferozepore City and Cantonment, and of Ladwa were under consideration.

The sewage farm, in the neighbourhood of Delhi, was so far a success that all the filth of the city was disposed of without causing any nuisance.

One hundred copies of the village sanitary inspection books were supplied to Deputy Commissioners. These books have been kept up in many villages and "have proved useful in giving important sanitary information to the inspecting officers at the time of their visit to the villages."

Sanitary Board.

258. Only one meeting of the Board was held during the year. The following subjects were discussed:—

1. The excessive mortality from fevers in the province.
2. The unhealthiness of the villages in the Neli Circle tract in the Kalsia State and British Territory. It was recommended that quinine should be distributed gratuitously to the villagers all the year round.

A good many papers, of which the greater number related to sanitation in Bengal and the North-Western Provinces and Oudh, were circulated among the members of the Board.

Central Provinces.

259. The total income of the nineteen *Sadar* towns in the Central Provinces fell from R16,26,680 in 1896, to R14,10,350, but the expenditure on sanitation rose from R2,79,252 to R2,88,047, the outlay on water-supply being R61,437, against

R52,420 in 1896; on conservancy R2,03,702, against R2,05,089; on buildings R4,887, against R16,895. No project of capital importance was undertaken during the year, but progress was made with the water-supply and drainage schemes at Jubbulpore, and with the Wardha water-works which have since been completed. The carrying out of the water-supply scheme at Harda had to be deferred owing to lack of funds.

Of R94,566, allotted during the year for expenditure on village sanitation, only R38,845 were spent, about two-thirds on water-supplies and the balance on site-cleansing, drainage and roads.

Progress was made in the record of notes on village sanitation, but the inspection of minor villages was restricted on account of the special duties in connection with the famine and precautionary measures against plague, which engaged the attention of the sanitary staff.

Sanitary Board.

260. The constitution of the Board remained unaltered; the members met once at each divisional head-quarters, and were mainly occupied with minor projects for the improvement of villages.

Berar.

261. The income of the municipal towns in Berar was R2,67,286 as compared with R2,42,922 in 1896. The proportion devoted to sanitation was somewhat less in 1897 than 1896,—71 per cent., as compared with 74, but the actual sum expended was R1,69,159, only R1,356 less. The decrease in expenditure was under the heading "water-supply," R57,904 having been spent, against R71,180 in the previous year; under the other heads expenditure was larger, on conservancy R66,853, against R59,988; on drainage R10,592, against R10,208, and on other sanitary works R33,810, against R29,139.

No new work of importance was begun during the year, and the principal item of expenditure was a sum of about R25,000 for repairs to the Khamgaon tank, undertaken as a relief work. Considerable improvements were made in the drainage arrangements of the towns, and a scheme for the drainage of Amraoti, prepared by Dr. Khote, chairman of the sub-committee for sanitation in that municipality, is under consideration.

Night-soil is trenched and cropped in most towns, but owing to the want of rain in 1897 the crops obtained were unsatisfactory, except at Shegaon where there was a fair yield of tobacco. Sufficient attention has not as yet been given by all the committees to the disposal of night-soil, and the filth will be got rid of more effectively and the profits to the towns will be greater when the needed improvements are brought about.

The income of the District Boards is said to be about six-and-a-half lakhs. In 1897, R1,05,475 was devoted to sanitation, against R82,695 in the previous year. The principal expenditure was R55,939 on water-supplies, against R28,950 in 1896, and R38,650 on conservancy as compared with R37,217.

Sanitary Board.

262. The District Sanitary Boards met at each district head-quarters during the year, but no details regarding their proceedings have been furnished.

Madras.

263. Excluding the presidency town, the estimated income of the 58 municipalities in Madras in 1897 was R32,28,120, or about a lakh less than in the previous year. In spite of the diminution in their resources there was a very large increase in the sanitary

allotment, which rose from 48·1 per cent. of the income to 63·6 per cent.; the actual sum being R20,52,273, about four-and-a-half lakhs in excess of the allotment in 1896.

The actual expenditure, during the nine months ending on the 31st December 1897, was R11,37,397, including R4,07,095 on water-supply, R4,63,861 on conservancy and R1,63,353 on the improvement of sites. The total expenditure was more than half the allotment, and the Sanitary Commissioner considers this satisfactory.

The municipal income of the Presidency Town was R14,42,070, and a sum of R19,04,424 was allotted to sanitation. This large sum, however, includes the money to be spent on water-supply and drainage works; and the actual expenditure during the nine months was R4,55,332, including R2,38,068 on conservancy.

The Sanitary Engineer furnishes a concise table showing exactly the work which has been accomplished and what remains to be done in the fifty-eight municipal towns. In nine towns water-supply schemes have been completed, against three into which drainage projects have been introduced. Three water-supply schemes are in progress, five are in abeyance, seven are under consideration, and 12 surveys have been made but schemes have not yet been prepared. Four drainage schemes are in abeyance and two are being considered. Twenty-two towns have not been surveyed for the preparation of water-supply schemes, and 33 remain to be surveyed for drainage.

The water-supply works at Conjeeveram were completed in July 1897, and those at Kurnool in the following October.

The work at Conjeeveram was less costly than had been anticipated and it is proposed to devote the savings to fencing-in the pumping station, the construction of a service reservoir, and the extension of pipe-lines in the town.

The new works at Kurnool are designed to supply 15 gallons per head *per diem* to a population of 30,000. The water is pumped from the Kurnool-Cuddapah canal to a storage reservoir, sufficiently highly placed to command the town. From the storage reservoir the water passes to four filters together capable of filtering 450,000 gallons in the 24 hours, and from the filters to a clear-water reservoir, whence it is distributed to the town in iron pipes. To avoid interruption in the supply, a second pumping engine is in reserve, and the storage reservoir is capable of holding fifteen days' supply, so that the canal can be closed annually for repairs. In the town there are 46 public fountains and 13 hydrants.

The total income of the district boards was R79,10,730, about R57,000 less than in 1896, and the allotment for sanitary purposes was 8·4 per cent. of the income in both years. During the nine months of the financial year, 58·3 per cent. of the allotment was actually spent, including R2,48,065 on conservancy.

The Sanitary Commissioner points out the difficulty that must exist in dealing with epidemics in rural areas in the absence of any one capable of directing the measures that ought to be taken; but a draft bill, which, it may be hoped, will strengthen the hands of local authorities and enable them to appoint a sufficient staff to secure sanitary conditions by legal measures, has been circulated to those concerned for criticism.

264. Although alterations in the *personnel* took place during the year, the Board continued to work under the constitution framed by the Local Government in 1896.

Sanitary Board

The Board was consulted by Government regarding rules regulating the formation of towns in the vicinity of railway stations and formulated a set of rules which might be usefully applied in, or modified to suit, other provinces. The Board scrutinised the plans and estimates for 185 sanitary projects, aggregating in value nearly twelve lakhs of rupees, of which 54 were for municipalities and 131 for local fund boards.

265. Besides the construction of drains in Somvarpet and a preliminary survey of Virajendrapet, no sanitary work appears to have been completed in any of the small towns in Coorg. **Coorg.**

266. The Board met three times during the year, and among other matters discussed the following :— **Sanitary Board.**

(1) The heavy mortality among coolies going to and from the province. The cooly shelters, three of which have been opened and have proved most useful, have not served to check heavy mortality, and, although it was pointed out that many of the poor who died were beggars and were not looking for work, the Civil Surgeon considered that a simple labour law, providing for the licensing of labour contractors, the medical examination of coolies, the unfit being returned to their homes, and the treatment in hospital of those who become sick, was required. After discussion, however, the matter was allowed to drop.

(2) Measures to be taken against the invasion of plague. A series of simple rules drawn up by the Civil Surgeon were distributed for the guidance of the public.

(3) The excessive mortality in April, May, June and July. This was ascribed to malarial fevers and a set of simple rules dealing with the personal prophylaxis and treatment of such fevers was circulated among the people.

267. Excluding Bombay City, the total income of the 167 municipalities in the Presidency in 1896-97, was R58,92,572, against R55,22,074 in the previous year. The sanitary allotment was 57·21 per cent. of the total income, or R33,71,008, and 84·84 per cent. of this sum was actually spent, as follows :—R9,07,896 on water-supply, against R6,47,329 in the previous year; R14,77,597 on conservancy, against R11,06,662; and R1,71,085 on improvement of sites, against R2,22,905. Owing to the famine and the presence of plague but little progress was made on large schemes of sanitary improvement, but the towns received such a thorough cleansing that their condition is probably purer than it has been at any previous period of their history. If this improvement is maintained, much will be gained even if, as is to be feared, some of the larger schemes are deferred for want of the funds, which have been devoted to precautions against the invasion of plague. It will be gathered, however, from the following short notes on projects of sanitary improvement recently completed, in progress, or in contemplation in some of the towns, that municipal committees can often evade the prosecution of schemes of sanitation without pleading poverty. **Bombay.**

Ahmedabad is an exception to the general rule, on account of the foresight and energy of the Hon'ble Mr. Runchorlal Chotalal whom the townspeople are fortunate in having as the president of the municipal committee. This gentleman has been able to force through the committee

schemes for water-supply and drainage. The water is, as usual, thoroughly appreciated by the people, and the demand has become so great that an extra pumping engine has been ordered.

At Ahmednagar, a scheme for supplying water to about one-third of the town has been completed; and a project on similar lines for the supply of the rest of the town has been drawn up, but its execution depends on the construction of the Kapurwadi tank which, undertaken as a famine work, has only been one-fourth completed.

At Dhulia, the water-supply project was completed.

At Shikarpur, the municipality have shelved a small scheme for water-supply, preferring to rely on wells; and every year new ones are sunk in the sewage-sodden subsoil, mostly in the floors of the houses, or in the small enclosures where cattle are kept.

At Sukkur, there is now a fairly good supply of water derived from tunnels driven in the rocky bed of the Indus. The water is pumped by a pair of engines to iron tanks on a small hill, and is thence distributed by iron pipes to cisterns and stand-posts in the town.

At Surat, the water works are nearly finished. The water is pumped from covered wells, sunk in the bed of the river Tapti, to steel tanks raised on towers, whence it is supplied to the city by gravitation. It is noted that, although the influence of the tide affects the level of the river much higher up than the head-works, the quality of the water is not affected.

At Yeola, the water works, which were being carried out by the Public Works Department, were at a stand-still on account of the non-arrival of pipes and engines ordered from England a year before.

At Ahmedabad, a drainage scheme, drawn up by Mr. Baldwin Latham, has been applied to a section of about one-fifth of the city, and has proved so satisfactory that it is about to be extended to the rest of the city. The sewage farm continues to be badly managed, but the municipal committee have acquired 300 acres of land about three miles away from the town, where it is hoped that sewage farming, as carried on at Karachi, will prove a success.

Karachi is another town in which the *personnel* of the committee and executive has secured progress in sanitation. The drainage scheme on the Shone system has been completed, and, the difficulties encountered on account of the height of the subsoil water having been overcome, is entirely satisfactory; house connections are being rapidly made, and it only remains to extend the system to the cantonment. The sewage is utilized without nuisance and profitably, on a broad-irrigation farm. The amount of water brought into the town of Karachi has rendered it unhealthy, but it is hoped at once to diminish this evil and to check waste by the imposition of a water-rate.

At Poona, where schemes for water-supply and sewerage have been pressed on the committee for years, no permanent improvement has as yet been effected. The Sanitary Board advised some check being placed on the waste of water in the *sadar bazar*, where the dampness of the soil, due to the urgent need for drainage, is a cause of sickness.

Sholapur town is at present drained chiefly by open channels, which are such a serious nuisance that the committee have been convinced of the necessity to substitute pipe sewers, and a scheme has been prepared by the Public Works Department.

At Sukkur, a specially appointed engineer has drawn up an excellent and economical scheme of drainage for the municipality, but the committee are hesitating between it and an extension of their present drains, which are described as elongated cess-pools.

The income of the various district funds rose from R40,05,823 in 1895-96, to R41,45,747; the sanitary allotment from R6,85,851 to R8,64,063, and the actual expenditure from R4,71,536 to R5,16,221.

The Bombay Village Sanitation Act was introduced into 62 villages during the year, raising the total in which it is in force, to 282.

Sanitary Board.

268. The constitution of the Board remained unchanged. The number of meetings is not stated, but much useful work was done in connection with the projects above referred to, and with schemes for the water-supply, drainage or improvement of the towns of Godhra, Dakor, Malegaon, Gadag, Tirkhundi, Khed, etc.

The Board reiterate their opinion that the cause of sanitation will be furthered by the judicious reward of the few influential men who use their position to overcome the opposition of their fellows to schemes of sanitary improvement.

Burma.

269. The aggregate income of the towns and districts in Upper and Lower Burma fell from R71,10,986 in 1896, to R64,91,740, and the proportion of the total set aside for sanitary purposes fell from nearly 35, to a little over 33 per cent. The actual expenditure was R21,50,918, distributed as follows:— On water-supply R2,41,137; on drainage R1,19,799; on conservancy R8,12,295; and on other sanitary works R9,77,687. As compared with 1896, there was a total decrease in expenditure of about three lakhs of rupees, mainly attributable to reduction of the sums spent on water-supply, for a decrease of two lakhs and forty thousand rupees under the heading "Drainage" was almost balanced by an increase of two lakhs and thirty-eight thousand spent on conservancy, and the sums spent on other sanitary works were approximately equal in the two years. As Colonel Sinclair remarks, "Considering the urgent need of sanitary reforms in the majority of the towns, the amount spent on water-supply, drainage and conservancy, is very inadequate."

No new scheme was undertaken during the year, and very little practical action in improving existing projects.

In Rangoon the question of improving the water-supply is becoming yearly more urgent; not only is the quantity certain to be seriously deficient in a year of scanty rainfall, but the catchment areas of the Victoria and Royal Lakes are subject to dangerous pollution. The Thamaing water extension scheme, which provides for a reservoir of a storage capacity of 5,827 million gallons, has been prepared, and is estimated to cost R20,00,000; this, with the existing supply from the Victoria Lake, it is hoped, would suffice for the wants of Rangoon for nearly sixty years to come. This project has been postponed pending a consideration of a scheme to obtain supplies from artesian wells, but the municipal committee, after a careful examination of the matter, have definitely decided that artesian wells are not suitable as a source of public water-supply in Rangoon. After the success which attended their somewhat adventurous embarkation on a sewerage scheme, it is astonishing that the municipality cannot come to some decision regarding the provision of a water-supply.

The Shone system of sewage disposal worked admirably without a hitch, and satisfaction with the working is growing from year to year. During the

year 861,091,000 gallons of sewage were disposed of at a cost of little more than one anna-and-a-half per 1,000 gallons.

An interesting experiment in street-paving was made in the substitution of wood-paving for stone metal in a portion of one of the busiest streets in the town. The wood-paving has, so far, been entirely satisfactory, and a further stretch has been laid down.

At Moulmein, money was set aside for plans and estimates for a water-supply scheme, but no progress has been made pending the result of some well-boring experiments which, it is believed, will materially lessen the cost of the project.

At Bassein, also, tube-wells are being considered as a source of water-supply.

At Mandalay, the supply of water is still obtained from wells, from the moat, and from the Irrawaddy. The scheme to obtain a public supply from the river has been abandoned owing to engineering difficulties. A night-conservancy project has meanwhile ousted schemes of water-supply from the attention of the municipal committee, and a loan of 4½ lakhs was provided by Government for conservancy works; but, at the last moment, the committee have fallen into doubt regarding the efficiency of their conservancy scheme, and have decided to apply it on a small scale in a few blocks of the town before committing themselves to heavy expenditure.

At Prome, a new filtration scheme is under consideration of the committee; the unfiltered water, as now supplied, has been pronounced bad and unfit for use.

The village sanitary rules, issued in 1895, are reported to have worked well, and to have led in many cases to improvements in drainage and conservancy. In December 1897, a permanent sanitary record was introduced for use in towns and villages, which, it is hoped, will still further stimulate interest in rural sanitation.

Sanitary Board.

270. The number of meetings is not stated, and the Board were still occupied with the scrutiny of preliminary survey maps prepared for municipal towns. A sanitary engineer was appointed in January 1898; but the Sanitary Board's relation to him seems to be limited to the privilege of consulting him.

SECTION X.

GENERAL REMARKS.

International Conference at Venice.

271. The Government of India were represented at the International Conference, that sat at Venice from the 16th February to the 19th March 1897, by their Sanitary Commissioner, then Surgeon-Major-General James Cleghorn, and by Surgeon-Colonel Richardson, who had recently retired from the office of Inspector General of Civil Hospitals in the North-Western Provinces and Oudh.

The result of the deliberations of the Conference was the promulgation of the International Sanitary Convention of Venice of 1897, a series of regulations designed to prevent the spread of plague with the least amount of inconvenience to the public and to commerce, which in the opinion of the delegates was compatible with safety.

The Red Sea Pilgrim Traffic.

272. The Haj of 1897 began upon the 11th of May, but the assembly of pilgrims was much smaller than usual, the total number being only about two-thirds that of the previous year. Several causes contributed to this result. In the first place, the Haj of 1896 was a Haj-i-Akbar, and it is the rule for the succeeding pilgrimage to be a small one. The Græco-Turkish war, it is stated, had the effect of preventing pilgrims leaving the belligerent countries. But the chief reason was the presence of plague in India, and the alarm experienced in consequence by European Governments, lest the Hejaz should be infected and become a centre of dissemination by returning pilgrims. It was feared in India that, unless steps were taken to allay the alarm in European countries, stringent measures would be directed against arrivals from India; and, in spite of their reluctance to issue any orders which would interfere in any way with the religious observances of the people, the Government of India prohibited the departure after the 1st February from Bombay and Karachi of pilgrim ships. At the same time every effort was made to explain to the public the situation of affairs, so that intending pilgrims might be persuaded to defer their pilgrimage. As Calcutta and Madras were free from plague, it was made known that pilgrims might start from these ports, and the local authorities were warned to be prepared for an influx of pilgrims.

There was, of course, a danger lest pilgrims who had already assembled in Bombay might carry the plague with them to Calcutta and Madras, and to guard against this, instructions were given to dissuade pilgrims, who had already arrived in Bombay for the purpose of embarking, from seeking another port. Arrangements were made for the preliminary detention in segregation in Bombay of those who insisted upon going to Calcutta or Madras, and it was suggested to the authorities at Calcutta and Madras that they should detain such intending pilgrims, under strict medical supervision, in camps at a distance from the ports.

But the authorities in Madras and Bengal and many public bodies in those provinces did not think that these precautions were adequate, so that on the 16th of February the Government of India issued a notification under the Epidemic Diseases Act forbidding all persons resident in Bombay or Sind,

including those who had entered these provinces on their way to the Hejaz, embarking at any port in British India for the purpose of proceeding to the Hejaz.

On the 20th of February, in consequence of a communication from Her Majesty's Secretary of State, a further notification was issued, suspending the pilgrimage from India for that season. Intending pilgrims, after suitable precautions had been taken, were sent to their homes at the expense of Government. About one hundred and fifty Central Asian pilgrims begged to be allowed to remain in India until the next season, and this was allowed. Such of the indigent as wished to go back to their homes in Central Asia were furnished with funds for the purpose and certificates showing the dates on which they had left infected places.

But directly one Haj ends another begins; and poor pilgrims leave India for the Red Sea littoral in the autumn, before the steam-ship fares are raised in anticipation of the main body of intending Hajis. Before, therefore, orders restricting and finally forbidding the pilgrimage from India were issued, a good number of pilgrims had already left India. Between the 1st of October and the 1st February, seven steamers had left Bombay, conveying a total of 4,200 pilgrims. One steamer left Calcutta on the 21st January with 60 pilgrims. No pilgrims sailed from Madras.

Among the pilgrims who left Bombay, there were in all only 13 deaths on the voyage to Camaran, but two of the deaths were due to plague. These two deaths occurred on the S. S. *Pekin* which left Bombay on the 28th December 1896 with 1,045 pilgrims on board. No other case occurred among the *Pekin's* passengers, or among the passengers of any other steamer, either on the voyage or at the quarantine station at Camaran.

The Quarantine Station at Camaran.

273. The quarantine station at Camaran was opened for the season for the reception of pilgrims on the 6th December 1896. Thirty vessels arrived during the season and brought 14,210 pilgrims, including 2,493 natives of India and 327 Afghans. A quarantine of ten days was, as usual, imposed upon arrivals from Indian ports; but on the 8th of February orders were received from Constantinople increasing the quarantine for Indian ships in ordinary cases from ten days to fifteen, and fixing a period of twenty days for any vessel on which plague had occurred. There was no case of plague or cholera among the pilgrims at Camaran, and there were only 15 deaths among them altogether.

Improvements in the sanitation of Camaran were being carried out, which, when completed, will promote the health and comfort of the pilgrims detained there. During the season of 1897 condensed water was issued for the first time to the pilgrims, who expressed their strong approval of the quality of the water. The condenser is capable of producing 80 tons of water a day; pipes are laid down to all the camps; and in 1897 every pilgrim was given ten litres of the water daily free of charge. An ice machine was also in operation, but no ice was issued to the pilgrims. Two disinfecting machines were taken into use.

The Return of the Pilgrims.

274. Although by the time the pilgrims were due to return, plague had for the time greatly abated in Bombay, there was, of course, a great danger in allowing a large number of poor strangers to go into the town. Arrangements were accordingly made to prevent the mixing with the townspeople of the returning pilgrims, by taking

them direct from the ship to the railway station and sending them in batches by special trains to their destinations, the local authorities concerned being advised of the despatch of each train. Such of the pilgrims as could not afford to pay for them were given tickets gratis.

On the 10th of June the Consul at Jeddah telegraphed that plague had broken out there. The Government of India then directed the Governments of Bombay and Bengal to enforce the regulations prescribed by the Convention of Venice against arrivals from the Hejaz, and special instructions were given for the disinfection of ships on which cases of plague might have occurred. Happily no case occurred among the returning pilgrims.

Four steamers arrived in Bombay with a total of 2,519 returning pilgrims on board. Only 20 deaths occurred on these vessels during the voyage to Bombay. Two of the steamers arrived at Bombay on the 10th June, and one of these, the *Pekin*, had on board over 400 pilgrims, whose destination was Calcutta. After landing the pilgrims for Bombay, the *Pekin* left for Calcutta, and 443 pilgrims were disembarked at Diamond Harbour. Three deaths occurred among the *Pekin's* pilgrims—one from phthisis and two from chronic diarrhœa, apparently on the voyage from Bombay to Calcutta. Two of the steamers arrived at Bombay after the Hejaz had become infected with plague and the effects of the pilgrims on these vessels were disinfected prior to the despatch of their owners to their homes.

Anti-plague inoculation.

275. Extensive trial has been made of the inoculation with different serums for the cure of plague; and the preventive inoculation devised by M. Haffkine has been largely used in very many parts of the country. As, however, it is understood that anti-plague inoculation is one of the principal subjects engaging the attention of the members of the Indian Plague Commission, any criticism of the results hitherto obtained would at present be out of place here. Suffice it to say that, in view of the hopeful results which were obtained in the early experiments, every endeavour has been used by Government, not only to place M. Haffkine's preventive inoculation within the reach of those exposed to the infection of plague, but to encourage such persons to avail themselves of the protection.

Researches by the Special Assistant.

276. Brigade-Surgeon-Lieutenant-Colonel D. D. Cunningham had to leave India for Europe seriously ill in the end of March During the first two months of the year he continued his researches into the physiological action of cobra venom, and the results of his work have been published in Part XI of the Scientific Memoirs of Medical Officers of the Army of India.

The Etiology of Malarial Fever.

277. Until recently, our conception of the theory of the propagation of malarial fevers by the parasite discovered by Laveran was limited by the fact that no one had been able to discover the organism in external nature; and the difficulties surrounding the subject were so great that this discovery seemed to be almost hopeless. In 1894, however, Dr. Patrick Manson stated in a definite way a theory that the parasites are capable of transference to mosquitoes feeding on the blood of infected persons.* The belief that malarial fever was in some way connected with mosquitoes was not a new one; indeed, it appears

* British Medical Journal, 1894, Volume II, page 1306.

that a connection between insects and malarial fever was suspected before the beginning of the Christian era.* In modern times a theory of the conveyance of malarial infection by mosquitoes existed in the United States, but seems to have remained unknown in Europe ; and even the suggestion made more than once by Laveran himself,† that possibly mosquitoes played a part in the propagation of paludism as they do in filariasis did not attract attention. It was not until the publication of Dr. Manson's paper on the subject that the minds of British observers at any rate, were turned seriously to the mosquito as a possible intermediate host.

In 1895 Surgeon-Major Ronald Ross, of the Indian Medical Service, began the experimental study of the subject in India ; but for more than two years, during which he fed vast numbers of mosquitoes on persons suffering from malarial fever, he failed to obtain any conclusive evidence in favour of Manson's hypothesis.

Meanwhile, however, belief in the connection between malaria and mosquitoes was gaining ground, and it is of interest to quote the remarks of Dr. Robert Koch, who studied the subject in German East Africa :—

"With regard to the method of the origin of tropical malaria, I have arrived at no certain conclusions. One cannot as yet go beyond conjectures. But the number of possibilities which may be discussed in this regard are now with increasing knowledge of the actual nature of malaria, being continuously limited, and there now remain, so far as tropical malaria is concerned, only two agents for the conveyance of infection which need be seriously considered. These are drinking-water and mosquitoes. The more I study this disease, the more I incline to the opinion that the latter is the chief, and probably the only factor. Wherever one turns, one finds a local and a seasonal relationship, between the existence of tropical malaria and the presence of mosquitoes. On the coast there are a few places which are regarded as free from malaria ; one of them is the island of Chole, which lies at the southern extremity of the large island of Mafia. I have visited this island, which in former times was used as a sanitarium by the Zanzibar Arabs. It is the only place on the coast where I was able to sleep without mosquito-curtains. Among mountains malaria stops exactly where there are no longer any mosquitoes. In the interiors of countries malaria diminishes where mosquitoes diminish. At the times of the year when mosquitoes abound malarial fevers are most frequent.

"I am most strengthened in my conviction by the analogy of malaria with Texas fever and other tropical diseases of men and animals, in which the parasites are found in the blood exclusively. In all these diseases the infection is carried by blood-sucking insects, not indeed that the insect carries the infectious matter direct from the blood of one animal to that of another, but the parasite goes through further developmental stages in the insect, passes into the eggs and into the young insects, and is by them carried to the proper host. In this or some similar way, I think the mosquito plays its part in regard to tropical malaria."‡

In August 1897, Surgeon-Major Ross' perseverance was at last rewarded.

* See paper by Dr. George H. F. Nuttall, in the Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten, 14th February 1899, and following numbers.

† Du Paludisme et de son Hématozoaire, Paris, 1891, page 147, and again on page 60 of the Volume, on Paludisme in M. Léauté's Encyclopédie Scientifique des Aide-Mémoire, Paris, 1892.

‡ *Die Malaria in Deutsch-Ostafrica*. Arbeiten a. d. Kaiserlichen Gesundheitsamte, Volume XIV, page 299.

He observed in the stomach of a particular kind of mosquito, fed on the blood of a person suffering from malarial fever, certain pigmented cells. From the resemblance of the pigment in those cells to that found in the organisms associated with malaria, he was led to hope that he had found an extra-corporeal development of the latter.

Major Ross' Discovery.

278. In February 1898, Surgeon-Major Ross was placed on special duty under the Sanitary Commissioner with the Government of India for the investigation of the malarial problem and *kala-azar*, and was given the use of the laboratory of the Special Assistant to the Sanitary Commissioner in Calcutta.

Surgeon-Major Ross at once resumed the study of the pigmented cells. After some experiments attended by negative results, he found that the pigmented cells were almost always present in a particular variety of mosquito,—a mosquito capable of carrying *filaria nocturna*,—after it had been fed on sparrows infected with *proteosoma* Labbé, which is a parasite nearly akin to the parasites associated with malarial fever in man. After examining a very large number of such mosquitoes fed on infected birds, controlling his experiments by the examination of insects of the same variety fed on healthy birds, Surgeon-Major Ross satisfied himself that the pigmented cells are a developmental stage in the mosquito of the blood parasites of the infected birds. He was, moreover, able to trace the gradual growth and development of the cells in the insects.

Shortly after the mosquito has been fed on the infected blood, the cells begin to appear, according to Ross, as small oval bodies containing pigment attached to the outer wall of the insect's stomach. These bodies rapidly increase in size, until after six days they reach a maximum of about 60 micromillimetres in diameter, and are protruded freely into the cœlum, or blood cavity, of the mosquito. Major Ross considers these bodies to be coccidia, and calls them *proteosoma* coccidia.

The next object was to discover the sporulation of the *proteosoma* coccidia; and Surgeon-Major Ross soon satisfied himself that there are two kinds of reproductive elements, (*a*) delicate thread-like bodies, and (*b*) large black spores.

And now the enquiry became of particular interest, for there was reason to suppose that the mode of infection of birds with proteosoma certainly, and the mystery of the infection of man with the organism of malaria probably, would be explained by the results of the next step in the investigation.

The results attained were somewhat unexpected, as Ross himself states. He discovered that the thread-like bodies have the faculty of entering and remaining in the large grape-like cells of the salivary gland of the mosquito. This gland lies near the head of the insect, and a duct runs from it to the extremity of the tongue or epipharynx, one of the stylets of the proboscis which is used by the mosquito to pierce the skin of its victim. Ross believes that the secretion of this gland is poured into the wound, its function being to prevent the contraction of the torn capillary vessels, and its effect the familiar irritation of the mosquito-bite. His theory of infection was that the thread-like reproductive elements of the *proteosoma* coccidia, having accumulated in the gland, were carried out by its secretion into the blood of any creature on which the mosquito might feed. Once in the blood *proteosoma* infection would be set up, provided the victim of the mosquito was a susceptible bird.

So far, this theory was supported only by the life-history of the *proteosoma*, and Ross next endeavoured to confirm his speculations by the direct infection

of healthy birds. He fed a number of mosquitoes on birds infected with *proteosoma*, and, after keeping them for a week in order to allow time for the production by the *proteosoma* coccidia of the thread-like bodies, he fed the mosquitoes on birds which he had previously ascertained were free from *proteosoma* infection. The result was decisive. After a definite incubation period of from five to eight days, 80 per cent. of these birds became infected with what he describes as immense numbers of *proteosoma*. Most of the birds died and showed the characteristic black pigmentation in the liver and spleen. Major Ross states that *proteosoma* infection is found in only about 13·5 per cent. of the free sparrows which he examined in Calcutta, and then the parasites are far inferior in number to those in his experimental cases. He, therefore, considers that the fact that *proteosoma* infection is carried from a diseased to a healthy bird by mosquitoes has been placed by him beyond question.

Major Ross has not yet succeeded in extending these latter observations to human malaria, nor has he yet ascertained the function of the black spores; and work in both directions must be completed before the problem of the propagation of malarial fever can be said to be solved. He fears, moreover, that the task of finding the appropriate definite hosts for each of the different gymnosporidia will prove to be a hard one. Major Ross is, however, inclined to anticipate that the direct infection of the malarial germs through the suctorial apparatus of the mosquito will be found to be the only method of infection. If this is so, the prevention of malaria will depend upon the prevention of mosquito-bites. This may not be so difficult as is supposed, because at any rate as regards several species, mosquitoes have a limited area of propagation, in barrels of water, puddles, and ditches, where small fish, which devour them greedily, cannot live.

Before the important subject of limiting the propagation of mosquitoes is considered, the species and habits of the insects which act as hosts to the parasites must be learned, and this work is now obtaining serious attention in many parts of the world. In the meantime it may be stated that there is good ground for the belief that the commoner species of mosquito cannot convey the organism of human malaria.

Confirmation and Application of Major Ross' Discovery.

279. Major Ross had not to wait long for the confirmation of his work. Dr. C. W. Daniels, of the British Guiana Medical Service, as a member of the Malaria Commission, was sent out to India that he might make himself acquainted with Major Ross' researches. In his report, about to be submitted, by the direction of the Colonial Office, to the Secretary of the Malaria Investigation Committee of the Royal Society, Dr. Daniels confirms Major Ross' discovery of the propagation of the *proteosoma* by mosquitoes.

In Italy, Professor Grassi and Drs. Bignami and Bastianelli, after receiving reports and specimens from Major Ross, have published* their success in following the development of two of the parasites of human malaria in a species of mosquito (*Anopheles claviger*).

Kala-azar.

280. As the greater number of professional men who had studied *kala-azar* were of the opinion that it is a result of malarial infection, and as Captain Rogers had adduced some evidence in support of the belief that it is communicable in some way

* Rendiconti della R. Accad. dei Lincei—*Ulteriori ricerche sul ciclo dei parassiti malarici umani nel corpo del zanzarone.* Rome, December 22nd, 1898.

from man to man, it was believed that a study of *kala-azar* would throw some light on the problem of malarial infection. Accordingly, after he had succeeded in tracing infection by one of the so-called malarial parasites of birds from an infected bird through the mosquito to a healthy bird, Major Ross was deputed to Assam to investigate *kala-azar* on the spot. While this report is passing through the press, Major Ross has presented the outcome of his labours in a lengthy essay 'On the Nature of *Kala-Azar*.'

The questions which Major Ross set himself to solve were the following: What is the nature of *kala-azar?* If it is malarial, how can its communicability be explained?

Major Ross begins his report with a description of the disease, which is a skilfully constructed mosaic of the opinions of the medical men who have had the most extended opportunities of studying its signs and symptoms directly, There are no prodromata. The onset of *kala-azar* is sudden; the first symptom being fever which is introduced by a rigor or mere chilliness, is generally severe, may be continued, intermittent or remittent, and may last two or three weeks or even longer. This is succeeded by an apyrexial period lasting a week or two to be followed by an attack of fever, similar to the first; this in turn giving way to a fever-free period. There may be several alternations of fever and fever-free periods. In the meantime, the spleen always, and the liver in nearly every case, become enlarged and may be tender to the touch. Anæmia progresses with the illness, but varies in degree, extreme anæmia suggesting anchylostomiasis as a complication. Emaciation is progressive throughout.

Then follows a second stage characterised by extreme enlargement of the spleen and liver, and the persistence of a low form of fever which may last for months and may, or may not, be interrupted by attacks of high fever.

Dropsical conditions may arise; bleeding of the nose is common; and in some cases there is undoubted darkening of the skin.

The third stage is one of emaciation, during which the low fever disappears, the spleen and liver decrease in size, but emaciation and darkening of the skin persist, and weakness is extreme. Dysentery and diarrhœa are common intercurrent affections, and pneumonia may occur.

Death may take place during any of the stages—from high fever at the commencement of the illness, later from dysentery or diarrhœa or from exhaustion.

Shortly, then, the course of the disease may be divided into three stages: the first characterised by recurrent attacks of high fever and rapid enlargement of the spleen and liver; the second, by great enlargement of these organs and constant low fever; and the third, by progressive emaciation.

The diagnosis of the disease in the first stage does not seem to be possible, as it does not differ from ordinary malarial fever; in the second stage reliance is placed upon the failure to obtain good results from the administration of quinine, the history of several attacks among the family of the patient, and, probably, the great enlargement of the spleen and liver.

The pathology of the first stage is that of malarial fever; but in the second stage Major Ross found that there were important differences from the conditions ordinarily held to be characteristic of malarial poisoning.

In cases in the second stage of *kala-azar* Major Ross found—

(*a*) that parasites were absent from the peripheral blood;

(*b*) that parasites and generally black pigment were absent from blood taken during life from the spleen and liver;

(*c*) that parasites and black pigment were absent from the spleen and liver in two out of seven autopsies ;

(*d*) that the temperature charts showed a fever apparently distinct from any of direct malarial origin ; but

(*e*) that yellow pigment was generally present in the liver.

The points wherein *kala-azar* resembled ordinary malarial fever then are :—

(1) The occurrence in malarious places.

(2) The similarity of the symptoms of the early stage, any difference being in degree, not in kind.

(3) The presence of the yellow pigment.

The points of apparent difference are :—

(1) The high death-rate.

(2) The apparent inefficacy of quinine.

(3) Absence of parasites and melanin.

(4) The persistent low fever, which is not amenable to quinine.

(5) The fact of communicability, which Major Ross regards as proved.

Major Ross then proceeds to discuss the apparent differences between *kala-azar* and malarial fever. He points out that the mortality from *kala-azar* is probably overstated, because the belief in its fatality is so strong that if a case recovers, it is no longer classed as *kala-azar ;* and that the actual mortality is probably not greater than the mortality from the severe malarial fever of many Indian terais. The failure of quinine to control the disease in its initial stage may be due to its not having been administered in sufficient quantity and at the proper time ; moreover, quinine occasionally fails in undoubted cases of malarial infection.

The absence of parasites and melanin is a more serious matter, and if it is to be accepted that *kala-azar* is malarial fever, it becomes necessary to show that parasites and melanin may be absent in later stages of malarial fever. This leads Major Ross into a most suggestive sketch of the essential conditions in an attack of malarial infection remaining untreated. It is explained that the vast amount of recent literature on the subject has the defect, so far as the present argument is concerned, of dealing almost exclusively with the condition of the blood and organs in Europeans who have received specific treatment for the disease.

When the indigenous inhabitant of a malarious place is attacked, the invasion of parasites is very rapid, the resistant energy of the system is brought into play, and if death does not occur from the violence of the fever, the parasites are repulsed, being either exterminated altogether, or their numbers reduced below the point of toleration when they produce no symptoms in the host, and would not be discovered by the microscope in his blood save accidentally. When they are not exterminated, the parasites remain in the blood without giving rise to any sign of their presence, until a chill or some other interfering circumstance lowers the powers of resistance in the system of the host. The parasites then increase in number, and a recrudescence of fever ensues. Another period of quiescence follows, and the struggle is renewed again and again, until the resisting powers of the system, which become stronger on each occasion on which they are called forth, are able to render the blood of the host uninhabitable by the parasites.

But while this contest is going on, congestion of the abdominal organs has been established, and pigment has been deposited in them, so that by the time the sufferer's system has overcome the parasites, his spleen and liver have become enlarged and are laden with black and yellow pigments. After the parasites have disappeared, the black pigment is eliminated, but the yellow irritating pigment remains behind.

Regarding the absence of parasites, Major Ross quotes Laveran,* who states that when cachectics have been free from fever for some time, the examination of their blood does not as a rule reveal the presence of parasites; and he cites the experience of Dr. Daniels in British Guiana, where he found parasites much less frequently in cases of enlarged spleen than in early cases of malarial fever.

The low fever of the second stage of *kala-azar*, in Major Ross' opinion, is due to the enlargement of the abdominal organs, is, in fact, symptomatic, and as it does not depend upon the presence of the organisms of malaria, the temperature curve of the fever does not resemble a malarial curve, and quinine is without effect on the fever.

In *kala-azar* then, in the first stage, we have the signs and symptoms of severe malarial fever with the deposition of black and yellow pigments; in the second stage, there is the elimination of the black pigment, while the yellow pigment is retained, and there is a low fever due to the enlargement of the spleen and liver; in the third stage, that of cachexia, the elimination of the black pigment is continued.

Major Ross quotes Kelsch and Kiener's description of malarial fever, and shows that the conditions described by them as occurring in ordinary malarial fever are essentially the same as those occurring in *kala-azar*. He states, moreover, that *kala-azar* is practically the same as *kala-jwar* of the Darjeeling terai, and that a precisely similar fever occurs throughout India, especially in malarious localities.

The communicability of *kala-azar* does not of course differentiate it from malarial fever, if it is accepted that the latter is carried from man to man by suctorial insects. The spread of *kala-azar* in a village would depend upon the arrival in that village of a patient suffering from the disease, (in the early stage ?) and the presence there of the species of insect capable of carrying the parasite.

Perhaps the least satisfactory part of Major Ross' paper is his attempt to explain the cause of the special virulence of *kala-azar*. This must, he says, depend upon a special quality of the parasites or their occurrence in great numbers. He dismisses the first alternative without discussion, and suggests the explanation that an insect feeding upon the blood of a severely infected person would probably spread a severe form of infection.

Kala-azar then, according to Major Ross, is severe malarial fever, the distinctive later stages being due to the enlargement of the abdominal organs. The great mortality is due to the severity of the initial infection, aggravated by the conditions of life of the affected, and increased by the presence of anchylostoma and other intestinal parasites and the occurrence of dysentery in very many of the cases.

ROBERT HARVEY, M.D., F.R.C.P., *Surgeon-General,*
Sanitary Commissioner with the Government of India.

* Page 175, Traité du Paludisme, Paris, 1898.

ANNUAL RETURNS

OF THE

EUROPEAN ARMY OF INDIA

OF THE

NATIVE ARMY AND OF THE JAIL POPULATION

FOR THE YEAR

1897.

COMPILED AND SYSTEMATICALLY ARRANGED FROM THE ORIGINAL DOCUMENTS

BY

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(European, Eurasian, native ; male, female, adult, juvenile.)

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Note.—Owing to the system of weekly returns at present in force for the army, the months mentioned in Tables VI—XIII, XVIIIc, XVIIId, XX, XXI, XXIII, XXIV, XXIX, and XXXI—XXXVIII for troops are not calendar months, but 4-5 week periods.

For 1897 the months are divided as follows :—

January—from 1st January to 29th January.
February—from 30th January to 26th February.
March—from 27th February to 2nd April.
April—from 3rd April to 30th April.
May—from 1st May to 28th May.
June—from 29th May to 2nd July.
July—from 3rd July to 30th July.
August—from 31st July to 3rd September.
September—from 4th September to 1st October.
October—from 2nd October to 29th October.
November—from 30th October to 3rd December.
December—from 4th December to 31st December.

In the jail tables, on the other hand, the months mentioned are calendar months, the returns being monthly returns.

TABLE G.

*Grouping of Diseases in the Main Tables for 1897.**

Head of Disease.	Includes or includes also
Cholera	Choleraic diarrhœa.
Heat-stroke	Sunstroke and Heat-Apoplexy.
Alcoholism	Delirium tremens. Alcoholic Poisoning.
Tubercle of the lungs	Tuberculous Phthisis, and Hæmoptysis due to tubercle.
Other Respiratory Diseases.	Includes Hæmoptysis and Cirrhosis of the Lung not due to tubercle, and excludes Pneumonia and Tuberculous Phthisis.
Anæmia and Debility	Old age (Tables for men and women). Immaturity at birth (Tables for children).
Diarrhœa	Epidemic Diarrhœa.
Hepatic Congestion and Inflammation.	Congestion of liver, Hepatitis, Perihepatitis; but excludes Cirrhosis of liver.
Venereal Diseases	Primary syphilis, Secondary syphilis; Gonorrhœa, and Soft Chancre, which include also their sequelæ.
Guinea-Worm and other Entozoa	The entozoa numbered from 1 to 56, 67 to 81: also Nos. 105 and 106.
Phagedæna, Slough and Gangrene.	Nomenclature of 1896, Nos. 25 *a* and *b*, 800, and 847. (These two headings appear only in jail tables.)
Abscess, Ulcer and Boil	Nomenclature of 1896, Nos. 799, 843, and 845. (These two headings appear only in jail tables.)
Abortion and Puerperal Affections.	Nomenclature of 1896, Nos. 700 and 706 to 718, and any other diseases stated by medical officers to have been puerperal.
Other Diseases peculiar to Women.	Nomenclature of 1896, No. 426, Vomiting of Pregnancy, Nos. 632 to 699, 701 to 705, and Nos. 719 to 730.

* For details of individual diseases see Table LIII.

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I.—EUROPEAN TROOPS, 1897.

TABLE D.

STATIONS by COMMANDS.

Stations.	Height above sea level in feet.*	Authority for height.†
Bengal :—		
Fort William (Calcutta)	17	S. G.
Fort Fulta	18	,,
Fort Chingrikhal	...	...
Dum-Dum	...	...
Barrackpore	24	S. G.
Dinapore	...	...
Benares	256	S. G.
Allahabad	298	,,
Fort Allahabad	298	,,
Fyzabad	336	,,
Sitapur	449	,,
Lucknow	400	,,
Cawnpore	417	,,
Fatehgarh	500	M. O.
Shahjahanpur	507	S. G.
Bareilly	560	,,
Rookee	884	,,
Meerut	739	,,
Delhi	715	,,
Muttra	576	,,
Agra	554	,,
Jhansi	860	,,
Nowgong	757	M. D.
Saugor	1,753	S. G.
Jubbulpore	1,306	,,
‡ Ranikhet	5,983	,,
Chaubattia	6,042	,,
‡ Chakrata	6,885	,,
Darjeeling Convalescent Depôt.	7,168	,,
Naini Tal ,,	6,400	,,
Landour ,,	7,362	,,
Pachmarhi Sanitarium	3,481	,,
Punjab :—		
Umballa	902	S. G.
Jullundur	900	,,
Punjab :—*contd.*		
Ferozepore	645	S. G.
Amritsar	756	,,
Meean Meer	706	,,
Fort Lahore	706	,,
Sialkot	829	,,
Rawalpindi	1,707	,,
Campbellpur	1,200	M. O.
Attock	891	S. G.
Nowshera	1,100	M. O.
Peshawar	1,165	S. G.
Mooltan	402	,,
‡ Solon	5,166	,,
‡ Dagshai	5,982	,,
‡ Subathu	4,124	,,
‡ Jutogh	6,371	,,
‡ Khyragully	8,746	,,
‡ Baragully	...	...
‡ Kuldunnah	7,049	S. G.
‡ Kalabagh	8,000	M. O.
‡ Camp Gharial	5,112	S. G.
‡ ,, Thobba	7,000	M. O.
‡ ,, Lower Topa	7,320	,,
‡ Ghora Dhaka	7,500	,,
‡ Cherat	4,520	S. G.
Kasauli Convalescent Depôt	5,071	,,
Dalhousie ,, ,,	6,732	,,
Murree ,, ,,	7,098	,,
Madras :—		
Port Blair	85	S. G.
Rangoon	14	,,
Thayetmyo	145	,,
Meiktila	298	,,
Fort Dufferin (Mandalay)	249	,,
Shwebo	600	M. O.
Bhamo	351	S. G.
Secunderabad	1,732	,,
Madras :—*contd.*		
Belgam	2,473	S. G.
Cannanore	47	,,
Calicut	27	M.
Mallapuram	...	...
Bellary	1,483	S. G.
Bangalore	3,021	,,
Pallavaram	74	,,
St. Thomas' Mount	230	,,
Madras	15	,,
Bernardmyo	5,600	,,
‡ Ramandrug	3,150	,,
‡ Wellington	6,160	,,
Poonamallee Depôt	50	M.
Bombay :—		
Hyderabad	134	I. B.
Kurrachee	28	S. G.
Deesa	468	,,
Ahmedabad	170	,,
Neemuch	1,613	,,
Nasirabad	1,461	,,
Indore	1,806	,,
Mhow	1,903	,,
Kamptee	941	,,
Sitabaldi	1,236	,,
Satara	2,183	,,
Poona	1,909	,,
Kirkee	1,837	,,
Ahmednagar	2,125	,,
Colaba (Bombay)	20	,,
Quetta	5,511	,,
Taragarh Sanitarium	2,855	,,
Mount Abu ,,	3,960	,,
Purandhur ,,	4,564	,,
Khandalla ,,	2,000	M.
Deolali Depôt	1,829	S. G.
Aden	26	,,

* These heights are usually those of the survey-marks or of the mercury-surface in barometer-cisterns of meteorological observatories.
† S. G. = Surveyor-General of India; I. B. = Intelligence Branch of the Quarter-Master-General's Department; M. D. = Meteorological Department; M. O. = Medical Officers in charge of Station Hospitals in their Sanitary Reports for 1897.
‡ These are the official "Hill Stations."

TABLE I.

RATIOS OF COMMANDS.

The ratios of admissions and deaths to strength are taken from Table III. **The actuals will be found in Table IV.**

	Ratios per 1,000 of the average strength.				
	Bengal Command.	Punjab Command.	Madras Command.	Bombay Command.	India.*
—Strength	20,113	17,190	12,369	14,859	68,395
—† Constantly-sick-rate of each month—					
January	107·1	85·0	109·5	90·7	97·9
February	109·0	85·1	107·5	87·7	97·4
March	104·9	83·0	101·5	84·8	93·8
April	104·2	78·1	97·7	88·2	92·4
May	105·6	81·0	95·7	84·6	92·5
June	102·4	79·9	96·0	84·4	91·2
July	107·4	84·7	102·9	93·0	96·2
August	115·3	92·1	108·7	105·6	103·2
September	130·6	96·9	112·9	108·2	110·8
October	137·0	110·1	108·9	101·6	114·5
November	125·2	127·9	115·6	95·3	117·9
December	123·3	133·1	102·1	87·9	111·5
Of the year	112·9	93·4	104·5	92·3	101·4
—Admission-rate of the year—					
Influenza	9·2	1·0	5·5	·1	4·0
Cholera	4·6	·2	·6	·7	1·7
Small-pox	·5	·2	·3	·3	·4
Enteric Fever	39·1	42·1	19·2	20·4	32·4
Intermittent Fever	356·1	442·5	121·5	406·4	394·7
Remittent Fever	13·6	25·5	24·7	11·4	25·4
Simple Continued Fever	48·7	24·9	69·0	32·8	42·9
Tubercle of the lungs	3·5	3·7	6·5	4·6	4·2
Pneumonia	3·2	4·9	2·3	1·9	3·4
Other Respiratory Diseases	20·1	22·5	23·4	22·2	22·7
Dysentery	38·1	32·1	44·9	22·9	45·7
Diarrhœa	29·9	30·7	9·1	28·3	33·2
Hepatic Abscess	3·0	1·4	2·0	2·4	2·1
,, Congestion and Inflammation	21·3	11·3	25·7	15·3	17·5
Venereal Diseases	600·0	404·2	541·7	474·7	485·7
All Causes	1,619·4	1,460·2	1,353·9	1,508·0	1,556·9
—Death-rate of the year—					
Cholera	3·28	·12	·32	·54	1·17
Small-pox	·05	·17	...	...	·06
Enteric Fever	10·39	11·05	4·93	6·46	9·01
Intermittent Fever	·30	·47	·16	·07	·41
Remittent Fever	·10	·70	·49	·47	·60
Simple Continued Fever	...	...	...	·07	·01
Heat-stroke	1·19	·70	·57	·54	·91
Circulatory Diseases	·65	·70	·49	·47	·56
Tubercle of the lungs	·35	·76	·73	·54	·56
Pneumonia	·45	1·11	·16	·20	·60
Other Respiratory Diseases	·10	·12	...	·07	·10
Dysentery	1·64	1·75	1·13	·34	2·53
Diarrhœa	...	·12	...	·07	·23
Hepatic Abscess	2·09	·76	1·13	1·14	1·29
All Causes	23·32	21·52	13·10	14·33	22·93
—Percentage in 100 admissions—					
Influenza	·57	·07	·41	...	·26
Cholera	·29	·02	·05	·05	·11
Small-pox	·03	·02	·02	·02	·02
Enteric Fever	2·41	2·88	1·42	1·35	2·08
Intermittent Fever	21·99	30·30	8·98	26·95	25·35
Remittent Fever	·84	1·75	1·82	·75	1·63
Simple Continued Fever	3·01	1·71	5·09	2·18	2·75
Tubercle of the lungs	·21	·25	·48	·30	·27
Pneumonia	·20	·33	·17	·12	·22
Other Respiratory Diseases	1·24	1·54	1·73	1·47	1·46
Dysentery	2·35	2·20	3·31	1·52	2·94
Diarrhœa	1·85	2·10	·67	1·87	2·13
Hepatic Abscess	·19	·10	·15	·16	·14
,, Congestion and Inflammation	1·31	·77	1·90	1·01	1·13
Venereal Diseases	37·05	27·68	40·01	31·48	31·20
—Percentage in 100 deaths—					
Cholera	14·1	·5	2·5	3·8	5·1
Small-pox	·2	·8	...	...	·3
Enteric Fever	44·6	51·4	37·7	45·1	39·3
Intermittent Fever	1·3	2·2	1·2	·5	1·8
Remittent Fever	·4	3·2	3·7	3·3	2·6
Simple Continued Fever	...	...	...	·5	·1
Heat-stroke	5·1	3·2	4·3	3·8	4·0
Circulatory Diseases	2·8	3·2	3·7	3·3	2·4
Tubercle of the lungs	1·5	3·5	5·6	3·8	2·4
Pneumonia	1·9	5·1	1·2	1·4	2·6
Other Respiratory Diseases	·4	·5	...	·5	·4
Dysentery	7·0	8·1	8·6	2·3	11·0
Diarrhœa	...	·5	...	·5	1·0
Hepatic Abscess	9·0	3·5	8·6	8·0	5·6

* For complete detail of diseases see Table LIII.

† Worked on the aggregates.

TABLE II.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table III. **The actuals will be found in Table I'**

	Ratios per 1,000 of the Average Strength.												
	I Burma Coast and Bay Islands.	II Burma Inland.	IV Bengal and Orissa.	V Gangetic Plain and Chutia Nagpur.	VI Upper Sub-Himalayan.	VII N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	VIII S.-E. Rajputana, Central India, and Gujarat.	IX Deccan.	X Western Coast.	XI Southern India.	XIIa Hill Stations.	XIIb Hill Convalescent Depôts, and Sanitaria.	India
I.—Strength	1,202	2,678	2,269	6,833	13,508	4,983	6,150	8,865	1,471	3,177	7,058	3,156	68,3
II.—†Constantly-sick-rate of each month—													
January	128·6	118·9	76·8	105·4	96·5	97·5	125·6	94·7	76·2	95·5	89·7	71·4	97
February	119·6	100·9	91·6	106·3	100·0	84·9	118·5	94·4	76·4	94·5	83·8	80·6	97
March	118·0	96·6	100·6	101·1	92·7	83·7	113·7	91·7	81·0	88·0	74·1	94·1	93
April	102·9	90·9	91·6	99·9	91·9	72·7	117·7	93·0	64·8	86·9	79·8	94·3	92
May	104·7	96·8	92·1	101·0	93·4	81·2	119·1	93·8	59·7	88·9	81·3	82·6	92
June	103·5	97·2	91·5	99·3	88·2	74·6	108·9	99·0	67·9	84·9	88·1	73·9	91
July	124·7	115·8	94·2	103·3	86·7	88·8	115·4	99·6	72·6	94·6	100·6	75·2	96
August	134·5	112·6	99·5	105·0	88·9	81·4	137·4	112·2	83·0	105·2	125·9	87·8	103
September	136·0	116·5	98·7	101·9	95·8	101·4	161·1	121·1	84·9	102·6	146·9	114·2	110
October	124·7	107·2	96·8	126·4	109·2	126·6	155·4	117·2	82·8	96·1	134·7	119·4	114
November	102·5	105·9	107·6	116·8	119·0	169·1	145·1	107·0	90·2	108·4	111·6	144·9	117
December	104·6	103·9	110·4	136·7	128·5	164·1	124·7	95·9	85·4	85·1	91·6	127·6	111
Of the Year	117·2	105·8	95·4	107·9	99·8	103·8	127·7	100·5	76·9	93·9	98·4	88·4	101
III.—Admission-rate of the Year—													
Influenza	51·6	·4	...	22·2	·2	...	·2	·5	...	·3	4·7	4·8	4
Cholera	...	...	·9	10·5	·3	·2	2·9	1·1	...	·3	...	...	1
Small-pox	...	·7	·4	1·0	·4	...	·5	·2	...	...	...	...	
Enteric Fever	20·8	1·1	11·0	36·9	33·5	22·3	63·7	24·3	10·2	26·8	49·7	14·9	32
Intermittent Fever	47·4	132·6	383·9	246·7	422·0	761·8	584·2	333·3	182·2	139·4	128·1	158·7	394
Remittent Fever	5·0	88·5	24·7	13·9	12·7	36·5	14·6	7·2	6·1	6·3	16·7	5·4	25
Simple Continued Fever	84·0	105·3	35·7	81·1	29·4	28·3	44·9	42·3	35·4	72·4	8·5	3·2	42
Rheumatic Fever	...	2·2	·4	·7	1·0	1·0	·8	2·0	·7	·0	7·5	4·8	2
Tubercle of the lungs	1·7	4·5	4·8	3·2	2·9	3·6	2·8	5·9	3·4	3·1	5·1	3·8	4
Pneumonia	...	2·6	2·6	2·5	3·8	6·0	2·0	1·7	...	2·8	3·3	6·0	3
Other Respiratory Diseases	20·0	29·9	30·0	14·0	24·8	21·1	26·0	21·5	27·9	19·8	22·5	14·9	22
Dysentery	49·1	27·6	61·3	40·5	27·7	41·5	34·1	32·0	13·6	53·5	21·7	22·8	45
Diarrhœa	5·8	20·3	28·6	33·1	24·7	33·3	38·2	22·1	17·7	4·1	27·2	22·8	33
Hepatic {Abscess, Congestion and Inflammation	2·5	·4	5·7	2·9	1·3	1·0	3·1	2·0	·7	3·5	1·6	4·4	2
	30·0	16·8	27·8	21·3	13·5	9·2	22·3	18·4	13·6	39·0	13·9	13·6	17
Venereal Diseases	643·9	558·3	413·0	616·9	491·0	345·8	595·8	557·6	350·9	517·5	511·9	389·4	485
All Causes	1,474·2	1,512·3	1,501·1	1,513·4	1,504·1	1,781·7	1,939·3	1,457·4	1,153·6	1,392·8	1,245·4	1,138·1	1,556
IV.—Death-rate of the Year—													
Cholera	...	...	·88	6·59	·15	·20	2·60	·56	...	...	...	...	1
Small-pox	...	...	·44	...	·22	...	...	...	...	...	...	...	
Enteric Fever	6·66	1·12	·44	10·24	9·77	12·64	20·16	6·43	3·40	5·67	8·36	3·17	9
Intermittent Fever	...	...	1·32	...	·30	·60	·16	·23	...	·03	...	·32	
Remittent Fever	...	1·87	...	...	·37	1·00	·65	·11	...	·31	·43	·03	
Simple Continued Fever	...	...	...	...	...	...	...	...	·68	...	...	...	
Heat-stroke	·83	·37	·88	1·17	·81	·60	1·79	·68	...	·63	·28	...	
Circulatory Diseases	·83	·37	·44	·88	·59	1·40	·33	·34	·68	·94	·43	·32	
Tubercle of the lungs	...	1·12	1·76	·44	·67	·40	·33	·34	...	·94	·28	·03	
Pneumonia	...	·75	·88	·29	·07	1·40	·33	...	·68	...	·14	1·58	
Other Respiratory Diseases	...	...	·44	...	...	...	·33	...	...	...	·28	...	
Dysentery	1·66	1·12	3·97	1·61	1·26	2·21	1·46	·90	...	·94	·71	·32	2
Diarrhœa	...	...	...	...	·07	·20	...	·11	...	...	...	...	
Hepatic Abscess	·83	·37	5·73	1·76	·59	1·00	1·79	1·69	·68	1·89	·71	2·22	1
All Causes	11·65	10·83	19·39	25·17	15·21	24·48	33·01	13·99	11·50	15·11	14·17	14·89	22
V.—Percentage in 100 admissions—													
Influenza	3·50	·02	...	1·47	·01	...	·01	·03	...	·02	·38	·42	
Cholera	...	...	·06	·70	·02	·01	·15	·08	...	·02	...	...	
Small-pox	...	·05	·03	·07	·03	...	·02	·02	...	...	...	...	
Enteric Fever	1·41	·07	·73	2·44	2·22	1·25	3·25	1·66	·88	1·92	3·99	1·31	2
Intermittent Fever	3·22	8·77	25·57	16·30	28·09	42·76	29·82	22·87	15·79	10·01	10·28	13·95	25
Remittent Fever	·34	5·85	1·64	·92	·85	2·05	·75	·50	·53	·45	1·34	·47	1
Simple Continued Fever	5·70	6·90	2·38	5·36	1·93	1·59	2·29	2·90	3·06	5·20	·68	·28	2
Rheumatic Fever	...	·15	·03	·05	·11	·06	·04	·14	·06	·05	·60	·42	
Tubercle of the lungs	·11	·30	·32	·21	·19	·20	·14	·40	·29	·23	·41	·33	
Pneumonia	...	·17	·18	·16	·26	·34	·10	·12	...	·20	·26	·53	
Other Respiratory Diseases	1·35	1·98	2·00	·93	1·65	1·18	1·33	1·48	2·42	1·42	1·81	1·31	1
Dysentery	3·33	1·83	4·08	2·66	1·84	2·33	1·74	2·20	1·18	3·84	1·74	2·00	2
Diarrhœa	·40	1·36	1·91	2·19	1·84	1·87	1·95	1·52	1·53	·29	2·18	2·00	2
Hepatic {Abscess, Congestion and Inflammation	·17	·02	·38	·19	·08	·09	·16	·14	·06	·25	·13	·39	
	2·03	1·11	1·85	1·42	·90	·52	1·14	1·26	1·18	2·80	1·11	1·20	1
Venereal Diseases	43·65	36·91	27·51	40·76	32·64	19·41	30·41	35·26	30·94	37·15	41·10	34·21	31
VI.—Percentage in 100 deaths—													
Cholera	...	...	4·5	26·2	·8	·8	7·9	4·0	...	...	...	...	1
Small-pox	...	...	2·3	...	1·2	...	...	...	29·4	...	...	...	
Enteric Fever	57·1	10·3	2·3	40·7	53·7	51·6	61·1	46·0	...	37·5	59·0	21·3	3
Intermittent Fever	...	...	6·8	...	1·6	2·5	·5	1·6	...	4·2	...	2·1	
Remittent Fever	...	17·2	...	...	2·0	4·1	2·0	·8	...	2·1	3·0	4·3	2
Simple Continued Fever	...	...	...	...	...	...	...	...	5·9	...	...	...	
Heat-stroke	7·1	3·4	4·5	4·7	4·5	2·5	5·4	4·8	...	4·2	2·0	...	
Circulatory Diseases	7·1	3·4	2·3	3·5	3·3	5·7	1·0	2·4	5·9	6·2	3·0	2·1	
Tubercle of the lungs	...	10·3	9·1	1·7	3·7	1·0	1·0	2·4	...	6·2	2·0	4·3	2
Pneumonia	...	6·9	4·5	1·2	3·7	3·7	1·0	...	5·9	...	1·0	10·6	2
Other Respiratory Diseases	...	...	2·3	...	...	...	1·0	...	...	...	2·0	...	
Dysentery	14·3	10·3	20·5	6·4	6·9	9·0	4·4	6·5	...	6·2	5·0	2·1	1
Diarrhœa	...	...	...	...	·4	·8	...	·8	...	...	...	...	
Hepatic Abscess	7·1	3·4	29·5	7·0	3·3	4·1	3·4	12·1	5·9	12·5	5·0	14·9	

* For complete detail of diseases see Table LIII.

† Worked on the aggregates.

TABLE III.

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table IV.

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	2. Death-rate. Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Port Blair	141	...	...	...	7·1	56·7	...	56·7	...	...	7·1	7·1	...	7·1	21·3	35·5	7·1	14·2	170·2	737·6	31·1	14·2	21·3	49·6	85·1
		...	...	...	7·09	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7·09		...	...	...	...
Rangoon	1,060	58·5	...	...	22·6	46·2	5·7	87·7	...	·9	8·5	·9	...	21·7	52·1	1·9	1·9	32·1	707·5	1573·6	128·8	231·1	56·6	158·5	261·3
		...	...	...	6·60	...	...	...	...	·94	·94	...	...	...	1·89	...	·94	...	...	12·26		...	...	...	...
Group I.—Burma Coast and Bay Islands.	• 1,202	51·6	...	...	20·8	47·4	5·0	84·0	...	·8	8·3	1·7	...	20·0	49·1	5·8	2·5	30·0	643·9	1474·2	† 117·2	205·5	52·4	145·6	240·4
		...	...	...	6·66	...	...	...	...	·83	·83	...	...	...	1·66	...	·83	...	...	11·65		...	...	...	...
Thayetmyo	551	...	...	...	...	41·7	...	201·5	1·8	1·8	10·9	...	1·8	18·1	20·0	20·0	...	25·4	615·2	1471·9	108·5	243·2	63·5	141·6	167·0
		...	...	...	...	...	...	...	...	1·81	1·81	...	...	...	...	...	...	...	...	9·07		...	...	...	...
Meiktila	389	...	...	...	...	41·1	2·6	59·1	2·6	5·1	...	2·6	...	15·4	18·0	..	...	...	498·7	1223·6	94·3	82·3	102·8	168·0	205·7
		...	...	...	...	...	...	...	...	...	...	2·57	...	...	...	...	...	...	2·57	7·71		...	...	2·57	...
Fort Dufferin	1,004	1·0	...	2·0	2·0	127·5	230·1	147·4	3·0	...	8·0	4·0	2·0	44·8	34·9	30·9	...	14·9	507·0	1761·0	119·9	180·3	32·9	127·5	166·3
		...	...	...	1·99	...	3·98	...	...	...	...	1·00	1·00	...	2·99	...	...	...	...	13·94		...	...	...	...
Shwebo	459	...	...	...	2·2	167·8	6·5	...	2·2	...	6·5	6·5	...	17·4	34·9	10·9	...	24·0	799·6	1477·1	112·7	252·7	124·2	135·1	287·6
		...	...	...	2·18	...	...	...	...	...	...	2·18	...	...	...	...	...	...	...	8·71		...	...	...	...
Bhamo	275	...	...	...	...	403·6	7·3	...	...	...	3·6	14·5	14·5	40·0	18·2	29·1	3·6	18·2	312·7	1152·7	53·9	134·5	14·5	83·6	80·0
		...	...	...	...	...	3·64	...	...	...	...	...	3·64	...	...	...	3·64	...	...	10·91		...	...	...	...
Group II.—Burma Inland.	• 2,678	·4	...	·7	1·1	132·6	88·5	105·3	2·2	1·1	6·7	4·5	2·6	29·9	27·6	20·5	·4	16·8	558·3	1512·3	† 105·8	186·7	63·1	124·3	184·1
		...	...	...	1·12	...	1·87	...	...	·37	·37	1·12	·75	...	1·12	...	·37	...	·37	10·83		...	...	·37	...
Fort William	1,056	...	1·9	...	...	94·7	51·1	76·7	·9	5·7	27·5	1·9	1·9	50·2	38·8	39·8	·9	18·9	494·3	1464·0	108·4	128·8	75·8	68·2	221·6
		...	1·89	..	...	...	...	...	...	...	·95	·95	...	·95	...	...	1·89	...	...	7·58		...	...	...	...
„ Fulta	20	...	...	...	...	300·0	...	...	...	...	...	...	...	...	50·0	100·0	...	...	350·0	1000·0	8·0	50·0	50·0	...	250·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
„ Chingrikhal.	32	...	...	...	31·2	...	...	...	...	...	...	...	...	...	31·2	...	...	31·2	281·2	468·8	2·5	...	125·0	...	156·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Dum-Dum	829	...	...	1·2	1·2	322·1	1·2	...	...	2·4	8·4	8·4	2·4	9·7	45·8	12·1	6·0	32·6	246·1	1035·0	68·5	36·2	67·6	45·8	96·5
		...	...	1·21	...	1·21	...	...	...	2·41	...	2·41	2·41	...	...	...	6·03	...	...	20·51		...	...	...	...
Barrackpore	332	...	...	...	69·3	1500·0	3·0	...	...	3·0	6·0	6·0	6·0	21·1	174·7	33·1	21·1	45·2	587·3	2912·7	135·3	66·3	213·9	51·2	256·0
		...	...	...	3·01	6·02	...	...	...	...	...	3·01	...	...	27·11	...	18·07	...	...	57·23		...	...	...	...
Group IV.—Bengal and Orissa.	• 2,269	...	·9	·4	11·0	383·9	24·7	35·7	·4	4·0	16·7	4·8	2·6	30·0	61·3	28·6	5·7	27·8	413·0	1501·1	† 95·4	83·3	93·4	56·0	180·3
		...	·88	·44	·44	1·32	...	...	...	·88	·44	1·76	·88	·44	3·97	...	5·73	...	...	19·39		...	...	...	...
B																									
Dinapore	785	6·4	...	1·3	8·9	222·9	19·1	...	...	1·3	3·8	6·4	5·1	12·7	29·1	59·9	3·8	26·8	782·2	1569·4	107·6	300·6	17·8	177·1	286·6
		...	...	...	2·55	...	...	...	...	...	...	1·27	2·55	...	3·82	...	2·55	...	1·27	20·38		...	...	1·27	...
Benares	343	...	...	...	122·4	113·7	55·4	294·5	...	5·8	20·4	...	...	32·1	58·3	105·0	2·9	52·5	743·4	2102·0	149·4	35·0	259·5	52·5	396·5
		...	...	...	26·24	...	...	...	...	2·92	2·92	...	...	...	2·92	...	2·92	...	...	37·90		...	...	...	...
Allahabad	915	...	1·1	...	44·8	326·8	3·3	41·5	...	7·7	6·6	1·1	5·5	8·7	60·1	26·2	2·3	10·9	699·5	1525·7	119·2	90·7	247·0	90·7	271·0
		...	1·09	...	15·30	...	...	...	...	...	3·28	...	...	...	1·09	...	2·19	...	...	22·95		...	...	...	...
Fort Allahabad.	201	...	14·9	...	44·8	204·0	...	467·7	10·0	10·0	10·0	14·9	5·0	19·9	10·0	39·8	...	10·0	646·8	2114·4	107·7	64·7	169·2	189·1	223·9
		...	4·98	...	9·95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14·93		...	...	...	...
Fyzabad	773	...	1·3	...	11·6	172·1	...	...	...	6·5	14·2	3·9	1·3	10·3	36·2	24·6	1·3	15·5	636·5	1344·1	111·7	97·0	199·2	111·3	229·0
		...	1·29	...	2·59	...	...	...	...	5·17	1·29	1·29	...	...	...	...	...	...	...	12·94		...	...	...	...
Sitapur	407	...	159·7	7·4	12·3	206·4	17·2	22·1	...	7·4	2·5	4·9	2·5	29·5	12·3	19·7	...	24·6	756·8	1680·6	114·1	19·7	260·4	213·8	262·9
		...	98·28	...	12·28	...	...	...	...	2·46	...	...	...	...	...	...	...	...	...	115·48		...	...	...	...
Lucknow	2,515	58·4	·4	1·2	48·5	185·7	16·3	124·1	·8	3·6	3·6	2·0	1·2	8·7	44·1	27·4	3·6	18·7	453·3	1306·6	98·3	156·3	14·7	96·6	185·7
		...	·40	...	11·93	...	...	...	...	·80	...	...	...	...	1·19	...	1·99	...	...	18·29		...	...	...	...
Cawnpore	698	...	1·4	...	17·2	497·1	4·3	...	1·4	5·7	30·1	4·3	2·9	25·8	40·1	20·1	4·3	25·8	733·5	1749·3	108·2	285·1	...	134·7	313·8
		...	1·43	...	4·30	...	...	...	...	...	1·43	1·43	...	...	4·30	...	1·43	...	...	15·70		...	...	...	...
Fatehgarh	196	...	...	...	25·5	515·3	35·7	...	...	...	20·4	...	...	15·3	25·5	5·1	5·1	45·9	632·7	1719·4	78·2	224·5	35·7	127·6	244·9
		...	...	...	15·31	...	...	...	...	...	...	...	...	...	...	...	5·10	...	...	25·51		...	...	...	...
Group V.—Gangetic Plain and Chutia Nagpur.	• 6,833	22·2	10·5	1·0	36·9	246·7	13·9	81·1	·7	4·8	9·4	3·2	2·5	14·0	40·5	33·1	2·9	21·5	616·9	1513·4	† 107·9	155·6	97·6	119·0	244·7
		...	6·59	...	10·24	...	...	...	...	1·17	·88	·44	·29	...	1·61	...	1·76	...	·15	25·17		...	...	·15	...

• Derived from the aggregates. † Worked on the aggregates.

TABLE III—*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. **For actuals see Table IV.**

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	2. DEATH-RATE. CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
A																									
Shahjahanpur.	425	...	...	...	4·7	188·2	4·7	4·7	...	2·4	11·8	...	9·4	18·8	21·2	23·5	...	18·8	978·8	1736·5	127·4	204·7	96·5	214·1	463·5
		...	...	...	4·71	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7·06		...	...	...	...
Bareilly	1,091	...	...	...	14·7	221·8	1·8	88·9	4·6	2·7	33·9	7·3	1·8	23·8	44·0	29·3	·9	24·7	747·0	1708·5	119·6	245·6	29·3	151·2	320·8
		...	...	...	5·50	...	...	...	...	...	·92	...	...	...	...	...	·92	...	1·83	11·00		...	...	1·83	...
Roorkee	379	...	...	...	2·6	121·4	2·6	...	...	...	5·3	2·6	...	5·3	2·6	7·9	2·6	13·2	540·9	1036·9	86·2	42·2	113·5	81·8	303·4
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·64	...	...	2·64		...	...	...	...
Meerut	2,045	...	...	1·0	47·4	409·8	8·8	11·7	2·9	4·9	7·8	2·0	2·9	16·6	16·1	13·2	1·5	12·7	516·4	1473·4	111·2	89·0	162·3	106·6	158·4
		...	...	...	18·58	...	...	...	...	1·47	·49	...	·49	...	·98	...	·98	...	...	24·45		...	...	...	...
Delhi	295	...	3·4	...	10·2	1101·7	135·6	50·8	...	6·8	6·8	...	3·4	23·7	13·6	10·2	...	23·7	362·7	2176·3	97·7	125·4	64·4	57·6	115·3
		...	3·39	...	3·39	...	...	...	...	6·78	3·39	...	...	...	...	...	...	...	...	27·12		...	...	...	...
Umballa	2,154	1·4	·9	...	64·1	317·1	4·2	13·9	·9	11·1	6·0	1·9	3·7	14·4	28·3	36·2	·9	11·6	470·3	1420·1	102·6	157·4	83·1	63·1	166·7
		...	·46	...	15·32	...	·46	...	...	...	...	·93	·93	...	2·32	...	...	...	·46	22·75		...	...	·46	...
B																									
Jullundur	675	...	...	...	20·7	444·4	17·8	16·3	...	4·4	5·9	1·5	5·9	14·8	28·1	25·2	1·5	7·4	546·7	1453·7	91·8	109·6	130·4	59·3	247·4
		...	...	...	7·41	...	...	...	...	...	...	1·48	...	...	...	...	1·48	...	...	11·85		...	...	...	...
Ferozepore	991	...	...	...	12·1	848·6	2·0	33·3	2·0	2·0	30·3	3·0	5·0	39·4	23·2	27·2	1·0	17·2	551·0	2165·5	120·4	98·9	106·0	111·0	235·1
		...	...	...	1·01	1·01	...	...	...	...	...	...	1·01	...	1·01	...	1·01	...	...	9·08		...	...	...	...
Amritsar	215	...	...	...	60·5	353·5	116·3	...	...	...	23·3	...	9·3	37·2	18·6	46·5	...	23·3	725·6	1869·8	113·6	144·2	209·3	83·7	288·4
		...	...	...	9·30	...	4·65	...	...	...	...	...	4·65	...	4·65	...	...	...	...	23·26		...	...	...	...
Mecan Meer	828	...	1·2	3·6	16·9	731·9	6·0	38·6	1·2	10·9	7·2	4·8	2·4	15·7	35·0	10·9	...	4·8	272·9	1539·9	84·2	58·0	...	90·6	124·4
		...	...	3·62	4·83	3·62	...	...	...	3·62	1·21	2·42	...	...	1·21	...	...	...	1·21	25·30		...	...	1·21	...
Fort Lahore	102	...	...	9·8	58·8	1009·8	88·2	78·4	...	9·8	9·8	...	...	19·6	29·4	9·8	...	9·8	264·7	2019·6	101·6	88·2	19·6	49·0	107·8
		...	...	...	19·61	...	...	...	...	9·80	...	...	...	...	...	...	...	...	...	29·41		...	...	...	...
Sialkot	966	...	...	...	15·5	162·5	18·6	94·2	1·0	3·1	5·2	1·0	1·0	18·6	23·8	23·8	1·0	12·4	401·7	1107·7	71·7	182·2	25·9	65·2	128·4
		...	...	...	9·32	...	...	...	...	...	2·07	1·04	...	...	1·04	...	...	...	1·04	15·53		...	...	1·04	...
Rawalpindi	2,953	...	...	...	32·2	423·6	7·5	18·3	1·7	2·4	8·5	3·7	5·1	45·0	36·6	26·4	1·7	11·5	375·2	1341·7	88·7	138·2	18·3	59·9	158·8
		...	...	...	7·79	...	1·02	...	...	·68	·68	·68	1·35	...	1·69	·34	·34	...	·34	17·95		...	...	·34	...
Campbellpur	236	...	...	...	89·0	508·5	16·9	...	...	16·9	12·7	...	...	4·2	4·2	55·1	...	8·5	508·5	1487·3	98·6	322·0	12·7	29·7	144·1
		...	...	...	21·19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21·19		...	...	...	...
Attock	155	...	...	...	32·3	258·1	19·4	...	...	...	...	12·9	12·9	19·4	51·6	12·9	12·9	32·3	516·1	1348·4	86·5	122·6	6·5	71·0	316·1
		...	...	...	6·45	...	...	...	...	...	...	6·45	...	...	6·45	...	6·45	...	...	25·81		...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYAN.	* 13,508	·2	·3	·4	33·5	422·6	12·7	29·4	1·6	5·1	11·4	2·9	3·8	24·8	27·7	24·7	1·3	13·5	491·0	1504·1	† 99·8	138·3	71·7	86·2	194·8
		...	·15	·22	9·77	·30	·37	...	...	·81	·59	·67	·67	...	1·26	·07	·59	...	·44	18·21		...	...	·44	...
A																									
Nowshera	502	...	...	...	23·9	525·9	49·8	2·0	...	17·9	...	2·0	6·0	12·0	71·7	31·9	...	12·0	519·9	1868·5	108·2	31·9	111·6	43·8	332·7
		...	...	...	7·97	...	...	...	...	1·99	...	1·99	1·99	...	3·98	...	...	...	...	19·92		...	...	...	...
Peshawar	1,968	...	...	...	44·2	738·8	69·6	...	2·0	2·5	3·6	4·6	10·2	30·5	61·5	49·3	1·5	6·6	356·7	1719·0	131·7	43·2	118·9	63·0	131·6
		...	...	...	20·93	1·52	2·03	...	...	·51	2·03	·51	3·05	...	4·57	·51	1·52	...	...	40·24		...	...	...	...
Mooltan	1,043	...	...	...	1·9	573·3	4·8	134·2	1·0	13·4	3·8	4·8	3·8	13·4	5·8	24·9	1·0	1·9	313·5	1587·7	81·0	40·3	67·1	57·5	148·6
		...	...	...	·96	...	·96	...	...	...	·96	...	...	...	...	...	·96	...	...	5·75		...	...	...	...
C																									
Hyderabad	371	...	2·7	...	2·7	719·7	35·0	...	...	8·1	13·5	2·7	...	10·8	45·8	2·7	...	13·5	342·3	1846·4	95·5	137·3	18·9	64·7	121·3
		...	2·70	...	2·70	...	...	...	...	...	2·70	...	...	...	...	...	...	...	...	10·78		...	...	...	...
Kurrachee	1,099	...	...	...	8·2	1103·7	1·8	...	...	2·7	20·0	1·8	2·7	19·1	24·6	23·7	3·6	18·2	278·4	2016·4	76·1	25·5	63·7	42·8	146·5
		...	...	...	3·64	...	...	...	...	·91	·91	...	...	...	...	...	·91	...	...	10·01		...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA.	* 4,983	...	·2	...	22·3	761·8	36·5	28·3	1·0	6·8	7·6	3·6	6·0	21·1	41·5	33·3	1·6	9·2	345·8	1781·7	† 103·8	44·6	87·7	55·6	157·9
		...	·20	...	12·64	·60	1·00	...	...	·60	1·40	·40	1·40	...	2·21	·20	1·00	...	...	24·48		...	...	...	...
A																									
Deesa	339	...	...	5·9	44·2	654·9	23·6	61·9	...	38·3	8·8	2·9	...	23·6	26·5	50·1	2·9	32·4	566·4	2020·6	98·0	73·7	138·6	91·4	262·5
		...	...	...	20·65	...	...	...	...	2·95	...	...	...	...	...	...	2·95	...	...	35·40		...	...	...	...
Ahmedabad	240	...	...	4·2	8·3	895·8	16·7	8·3	...	20·8	16·7	...	4·2	104·2	16·7	16·7	4·2	62·5	912·5	2979·2	159·2	41·7	475·0	141·7	254·2
		...	...	...	4·17	...	8·33	...	...	4·17	...	...	...	...	...	...	4·17	...	...	25·00		...	...	...	...
B																									
Neemuch	319	...	...	...	21·9	1269·6	25·1	6·3	...	...	9·4	3·1	...	40·8	37·6	21·9	6·3	12·5	648·9	2564·3	128·7	53·3	210·0	156·7	228·8
		...	...	...	9·40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15·67		...	...	...	...
Nasirabad	698	...	5·7	...	35·8	335·2	7·1	...	...	1·4	27·2	4·3	1·4	35·8	30·1	15·8	1·4	30·1	723·5	1745·0	110·0	325·2	44·4	141·8	212·0
		...	4·30	...	17·19	...	...	...	...	1·43	...	1·43	...	...	...	...	1·43	...	...	27·22		...	...	...	...
Muttra	540	...	16·7	...	29·6	916·7	1·9	3·7	1·9	5·6	7·4	...	1·9	20·4	3·7	77·8	3·7	18·5	374·1	2014·8	85·5	83·3	33·3	92·6	164·8
		...	14·81	...	9·26	...	...	...	...	...	1·85	...	...	...	...	...	1·85	...	...	31·48		...	...	...	...
Agra	1,088	...	·9	...	166·4	456·8	1·8	114·9	1·8	16·5	8·3	1·8	5·5	10·1	57·9	16·5	6·4	11·9	555·1	1814·3	120·3	115·8	98·3	72·6	268·4
		...	·92	...	45·04	...	...	...	...	2·76	·92	...	·92	...	2·76	...	2·76	...	·92	57·90		...	...	·92	...

* Derived from the aggregates.

† Worked on the aggregates.

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	2. Death-rate. Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Jansi .	769	...	5·2	...	81·9	468·1	...	29·9	2·6	11·7	18·2	5·2	1·3	19·5	55·9	32·5	3·9	13·0	695·7	1989·6	180·2	163·8	98·8	143·0	290·0
		...	5·20	...	22·11	...	...	...	...	3·90	...	...	1·30	...	3·90	...	3·90	...	1·30	44·21		...	...	1·30	...
Lowgong .	416	...	...	...	2·4	1331·7	14·4	36·1	...	9·6	28·8	...	...	31·3	12·0	24·0	...	26·4	863·0	2942·3	202·7	91·3	238·0	141·8	391·8
		...	...	...	2·40	2·40	...	...	...	4·81	...	...	...	2·40	2·40	...	...	...	...	16·83		...	...	...	...
Lodore .	89	...	...	...	11·2	449·4	22·5	...	...	...	...	11·2	...	22·5	33·7	22·5	...	11·2	427·0	1348·3	76·9	78·7	44·9	134·8	168·5
		...	...	...	11·24	...	11·24	...	...	...	...	...	...	...	...	...	...	...	...	22·47		...	...	...	...
Thow .	1,652	·6	...	...	49·0	345·6	32·7	52·1	...	1·2	...	5·4	3·0	1·2	22·4	29·1	59·9	1·2	24·8	486·1	1621·1	114·7	98·7	73·8	138·0	175·5
		...	...	...	16·95	...	·61	...	...	...	...	·61	...	·61	1·21	...	·61	...	...	23·00		...	...	...	...
Group VIII.—South-East Rajputana, Central India, and Gujarat.	* 6,150	·2	2·9	·5	63·7	584·2	14·6	44·9	·8	8·9	12·5	2·8	2·0	26·0	34·1	38·2	3·1	22·3	595·8	1959·3	† 127·7	127·5	111·4	122·3	234·6
		...	2·60	...	20·16	·16	·65	...	...	1·79	·33	·33	·33	·33	1·46	...	1·79	...	·33	33·01		...	...	·33	...
A Ajmere .	276	...	...	...	7·2	532·6	10·9	...	7·2	...	3·6	...	3·6	7·2	10·9	10·9	...	18·1	905·8	1735·5	113·4	405·8	76·1	87·0	337·0
		...	...	...	10·87	...	3·62	...	...	...	...	...	...	...	...	...	...	...	...	21·74		...	...	...	...
Jubbulpore .	729	...	...	...	31·6	930·6	30·2	...	1·4	2·7	17·8	1·4	...	23·3	42·5	38·4	5·5	38·4	684·5	2382·7	150·6	120·7	182·4	175·6	205·8
		...	...	...	6·86	1·37	...	...	1·37	...	...	...	...	...	4·12	...	5·49	...	...	19·20		...	...	...	...
Kamptee .	866	...	1·2	...	11·5	329·1	6·9	101·6	6·9	5·8	1·2	1·2	...	18·5	9·2	21·9	1·2	3·5	715·9	1756·3	117·4	42·7	294·5	78·5	300·2
		...	1·15	...	4·62	...	...	...	...	1·15	...	...	...	...	...	...	1·15	...	...	11·55		...	...	...	...
Kitabaldi .	52	...	...	...	...	788·5	...	76·9	...	...	...	...	...	...	19·2	...	...	...	576·9	1826·9	32·5	134·6	134·6	19·2	288·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
B Secunderabad .	2,622	1·5	1·5	·8	36·2	131·6	10·3	87·0	·4	1·5	8·8	5·7	1·1	32·4	57·6	10·3	1·1	25·9	578·2	1356·2	109·0	249·4	33·9	117·5	177·3
		...	·76	...	8·77	...	...	...	...	1·14	·38	·76	...	...	1·53	...	·76	...	·76	17·93		...	...	·76	...
Belgam .	883	...	3·4	...	4·5	217·4	...	...	2·3	1·1	7·9	31·7	3·4	13·6	44·2	...	3·4	10·2	634·2	1267·3	93·0	225·4	18·1	231·0	159·7
		...	2·26	...	1·13	...	...	...	...	...	...	...	...	...	1·13	...	2·26	...	...	7·93		...	...	...	...
Satara .	154	...	...	...	...	623·4	...	...	...	...	19·5	...	...	...	19·5	6·5	6·5	19·5	487·0	1428·6	92·1	90·9	45·5	84·4	266·2
		...	...	...	...	...	...	...	...	...	6·49	...	...	...	...	...	6·49	...	...	12·99		...	...	...	...
Poona .	1,985	...	·5	...	18·1	342·6	2·0	12·1	1·5	·5	3·0	2·0	3·5	18·6	11·6	26·7	1·5	16·1	430·7	1205·0	75·3	68·5	99·7	92·7	169·8
		...	...	...	2·52	·50	...	...	...	·50	...	·50	...	...	...	...	1·51	...	·50	7·56		...	...	·50	...
Kirkee .	730	...	1·4	...	20·5	434·2	2·7	9·6	4·1	1·4	1·4	2·7	...	8·2	9·6	13·7	2·7	12·3	421·9	1413·7	94·0	113·7	46·6	111·0	150·7
		...	...	...	6·85	...	...	...	...	...	1·37	...	...	...	...	1·37	2·74	...	...	15·07		...	...	...	...
Ahmednagar	566	...	...	...	53·0	295·1	...	42·4	...	5·3	1·8	1·8	1·8	28·3	31·8	97·2	1·8	10·6	406·4	1358·7	81·8	38·9	30·0	97·2	240·3
		...	...	...	19·43	...	...	...	...	1·77	...	...	...	...	...	...	...	...	...	21·20		...	...	...	...
Group IX.—Deccan.	* 8,865	·5	1·1	·2	24·3	333·3	7·2	42·3	2·0	1·9	6·3	5·9	1·7	21·5	32·0	22·1	2·0	18·4	557·6	1457·4	† 100·5	152·5	87·6	120·2	197·2
		...	·56	...	6·43	·23	·11	...	·11	·68	·34	·34	...	...	·90	·11	1·69	...	·34	13·99		...	...	·34	...
Colaba .	1,128	...	...	...	3·5	237·6	6·2	39·9	·9	·9	2·7	3·5	...	25·7	9·8	22·2	·9	14·2	336·0	1151·6	78·3	46·1	113·5	54·1	122·3
		...	...	...	·89	...	...	·89	...	...	·89	...	·89	...	...	...	·89	...	·89	11·52		...	...	·89	...
Cannanore .	86	...	...	...	11·6	...	...	23·3	...	11·6	11·6	11·6	...	11·6	...	11·6	...	23·3	500·0	1244·2	71·3	174·4	...	34·9	290·7
		...	...	...	11·63	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11·63		...	...	...	...
Calicut .	102	...	...	...	49·0	...	9·8	...	...	...	...	...	...	9·8	...	...	...	9·8	460·8	902·0	67·9	137·3	49·0	39·2	235·3
		...	...	...	19·61	...	...	...	...	...	...	...	...	...	...	...	...	...	...	19·61		...	...	...	...
Mallapuram	155	...	...	...	32·3	...	6·5	32·3	...	...	12·9	...	...	64·5	58·1	...	...	6·5	361·3	1283·9	75·8	96·8	...	90·3	174·2
		...	...	...	6·45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·45		...	...	...	...
Group X.—Western Coast.	* 1,471	...	...	...	10·2	182·2	6·1	35·4	·7	1·4	4·1	3·4	...	27·9	13·6	17·7	·7	13·6	356·9	1153·6	† 76·9	65·3	90·4	55·7	145·5
		...	...	...	3·40	...	...	·68	...	...	·68	...	·68	...	...	...	·68	...	·68	11·56		...	...	·68	...
A Bellary .	583	...	1·7	...	13·7	289·9	3·4	1·7	...	...	13·7	8·6	1·7	42·9	32·6	8·6	1·7	60·0	583·2	1511·2	119·0	188·7	36·0	216·1	142·4
		...	...	...	3·43	...	...	...	...	...	1·72	3·43	...	...	...	...	1·72	...	1·72	13·72		...	...	1·72	...
Bangalore .	1,667	·6	...	...	40·2	43·8	7·2	97·2	·6	...	6·0	1·2	3·0	11·4	55·2	3·6	6·0	45·6	484·1	1254·9	103·0	124·2	43·2	141·0	175·8
		...	...	...	7·20	1·20	...	...	...	...	1·20	...	...	...	·60	...	3·00	...	...	15·00		...	...	...	...
B Pallavaram .	64	...	...	...	15·6	218·8	...	187·5	...	...	31·2	...	...	15·6	31·2	...	...	...	453·1	1531·2	88·6	78·1	187·5	78·1	109·4
		...	...	...	...	...	15·62	...	...	...	...	...	...	...	...	...	...	...	...	15·62		...	...	...	...
St. Thomas' Mount.	317	...	...	...	12·6	53·6	6·3	142·0	...	3·2	6·3	6·3	6·3	28·4	138·8	...	...	12·6	441·6	1293·4	69·9	107·3	107·3	107·3	119·9
		...	...	...	9·46	...	...	...	...	6·31	...	...	...	...	3·15	...	...	...	3·15	31·55		3·15	...	...	...
Madras .	545	...	...	...	9·2	311·9	7·3	18·3	1·8	3·7	9·2	1·8	1·8	16·5	23·9	3·7	...	16·5	601·8	1732·1	53·9	209·2	56·9	64·2	271·6
		...	...	...	1·83	...	...	...	...	...	...	1·83	...	...	1·83	...	...	...	...	7·34		...	...	...	...
Group XI.—Southern India.	* 3,177	·3	·3	...	26·8	139·4	6·3	72·4	·6	·9	8·5	3·1	2·8	19·8	53·5	4·1	3·5	39·0	517·5	1392·8	† 93·9	147·9	53·5	136·9	179·1
		...	...	...	5·67	·63	·31	...	...	·63	·94	·94	...	...	·94	...	1·89	...	·63	15·11		·31	...	·31	...

* Derived from the aggregates.

† Worked on the aggregates.

TABLE III —*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table IV

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	2. Death-rate. Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Bernardmyo	180	...	...	...	...	172·2	5·6	...	...	...	5·6	...	5·6	5·6	...	...	...	44·4	222·2	733·3	47·7	61·1	16·7	27·8	116
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5·56	5·56		...	...	5·56	..
Ranikhet	807	39·7	...	...	23·5	29·7	5·0	44·6	...	...	8·7	3·7	11·2	53·3	47·1	75·6	2·5	35·9	677·8	1549·0	114·9	211·9	...	206·9	259
		...	...	...	3·72	...	...	...	...	...	1·24	...	...	...	...	...	1·24	...	1·24	11·15		...	...	1·24	..
Chaubuttia	273	...	...	...	3·7	22·0	...	...	3·7	...	7·3	...	11·0	7·3	7·3	11·0	...	18·3	666·7	1087·9	83·1	157·5	25·6	183·2	300
		...	...	...	3·66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3·66		...	...	...	..
Chakrata	749	...	...	...	72·1	58·7	14·7	...	37·4	...	25·4	14·7	2·7	14·7	28·0	18·7	1·3	22·7	951·9	1729·0	160·4	140·2	320·4	273·7	217
		...	...	...	8·01	...	...	...	...	1·34	...	...	...	...	...	...	...	...	...	9·35		...	...	...	..
Solon	139	...	...	...	71·9	251·8	7·2	7·2	14·4	...	14·4	7·2	...	7·2	43·2	14·4	7·2	21·6	697·8	1532·4	127·3	93·5	223·0	71·9	309
		...	...	...	7·19	...	...	...	...	...	...	...	...	...	...	...	7·19	...	...	21·58		...	...	...	..
Dagshai	538	...	...	...	136·2	84·2	...	26·9	1·8	...	5·4	...	...	12·5	14·3	26·9	...	10·8	358·4	1069·0	80·7	96·8	59·1	52·0	150
		...	...	...	12·54	...	...	...	...	...	...	...	...	...	1·79	...	...	...	...	14·34		...	...	...	..
Subathu	425	2·4	...	...	77·6	136·5	28·2	...	14·1	...	21·2	...	...	9·4	18·8	28·2	...	4·7	402·4	1070·6	92·9	23·5	188·2	80·0	110
		...	...	...	14·12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14·12		...	...	...	..
Jutogh	222	...	...	...	63·1	103·6	4·5	...	...	...	4·5	4·5	...	22·5	13·5	13·5	...	22·5	409·9	1135·1	77·6	99·1	94·6	27·0	189
		...	...	...	13·51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22·52		...	...	...	..
Khyragully	33	...	...	...	30·3	60·6	60·6	...	...	...	...	...	...	...	...	...	...	...	303·0	1121·2	66·1	90·9	...	121·2	90
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Baragully	25	...	...	...	40·0	40·0	...	...	...	...	...	...	...	80·0	...	40·0	...	...	240·0	1000·0	62·4	120·0	...	...	120
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Kuldunnah	263	...	...	...	...	76·0	3·8	3·8	...	...	3·8	...	3·8	11·4	...	3·8	...	...	471·5	817·5	67·3	239·5	45·6	57·0	129
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3·80	3·80		...	...	3·80	..
Kalabagh	41	...	...	...	...	73·2	...	...	...	...	24·4	...	...	...	...	...	...	48·8	219·5	658·5	43·2	73·2	...	122·0	24
		...	...	...	...	...	...	...	...	...	24·39	...	...	...	...	...	...	...	...	24·39		...	...	...	..
Camp Gharial	287	...	...	...	27·9	160·3	...	7·0	10·5	...	20·9	3·5	3·5	10·5	7·0	10·5	...	3·5	351·9	933·8	66·9	128·9	...	94·1	128
		...	...	...	...	...	...	...	...	...	...	3·48	...	...	...	...	...	...	...	3·48		...	...	...	..
Camp Thobba	197	...	...	...	5·1	192·9	...	5·1	...	...	10·2	5·1	...	25·4	15·2	15·2	...	15·2	558·4	1294·4	78·8	233·5	...	167·5	157
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Camp Lower Topa.	58	...	...	...	17·2	931·0	17·2	...	...	...	17·2	...	...	51·7	34·5	17·2	17·2	69·0	310·3	2051·7	68·3	...	137·9	51·7	120
		...	...	...	...	...	...	...	...	...	...	...	...	17·24	...	...	17·24	...	...	51·72		...	...	...	..
Ghora Dhaka	79	...	...	...	...	63·3	25·3	...	...	...	...	...	...	...	38·0	...	...	12·7	481·0	835·4	73·5	101·3	...	101·3	278
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Cherat	383	...	...	...	208·9	425·6	130·5	...	7·8	...	15·7	26·1	5·2	26·1	23·5	75·7	...	...	224·5	1595·3	104·6	13·1	31·3	99·2	80
		...	...	...	54·83	...	2·61	...	...	2·61	2·61	...	...	2·61	2·61	...	...	...	...	78·33		...	...	...	..
Quetta	2,307	..	...	...	22·5	130·0	13·9	1·7	3·9	·4	14·7	3·5	1·7	25·6	20·8	19·1	2·6	5·2	456·0	1149·1	96·0	68·9	172·5	76·7	137
		...	...	...	4·77	...	·87	...	...	...	...	·43	·43	...	1·30	...	·87	...	...	10·40		...	...	...	..
Ramandrug	33	...	...	...	...	121·2	...	...	...	...	...	...	...	...	...	...	...	...	545·5	757·6	55·5	181·8	...	272·7	90
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Group XIIa—Hill Stations	* 7,058	4·7	...	...	49·7	128·1	16·7	8·5	7·5	·1	13·5	5·1	3·3	22·5	21·7	27·2	1·6	13·9	511·9	1245·4	† 98·4	108·0	119·7	116·9	167
		...	...	...	8·36	...	·43	...	...	·28	·43	·28	·14	·28	·71	...	·71	...	·43	14·17		...	...	·43	..
Darjeeling	492	...	...	...	8·1	101·6	2·0	...	2·0	...	10·2	2·0	...	18·3	30·5	18·3	4·1	14·2	311·0	898·4	60·7	50·8	58·9	136·2	65
		...	...	...	...	2·03	...	...	...	...	...	...	...	...	2·03	...	2·03	...	...	12·20		...	...	...	..
Naini Tal	125	...	...	...	32·5	89·4	16·3	...	24·4	...	65·0	...	16·3	24·4	48·8	73·2	...	16·3	365·9	1130·1	113·5	56·9	24·4	170·7	113
		...	...	...	8·13	...	8·13	...	...	...	...	...	8·13	...	...	...	...	...	...	48·78		...	...	...	..
Landour	123	16·3	...	...	32·5	284·6	8·1	...	8·1	...	...	...	24·4	8·1	8·1	16·3	8·1	16·3	357·7	1333·3	87·7	32·5	16·3	105·7	203
		...	...	...	...	...	...	...	...	...	...	...	8·13	...	...	...	...	...	...	24·39		...	...	...	..
Kasauli	344	37·8	...	...	29·1	235·5	8·7	2·9	5·8	...	23·3	2·9	11·6	11·6	29·1	66·9	14·5	37·8	465·1	1668·6	104·9	107·6	32·0	206·4	119
		2·91	...	...	14·53	...	2·91	...	...	...	...	...	...	...	...	...	5·81	...	...	29·07		...	...	...	..
Dal housie	598	...	...	...	16·7	178·9	1·7	6·7	11·7	...	3·3	10·0	5·0	10·0	13·4	28·4	...	1·7	488·3	1257·5	76·5	163·9	15·1	118·7	190
		...	...	...	1·67	...	...	...	...	...	...	...	3·34	...	...	...	...	...	...	5·02		...	...	...	..
Murree	88	...	...	...	22·7	136·4	...	...	...	...	...	11·4	11·4	79·5	...	...	11·4	...	170·5	715·9	206·5	79·5	34·1	22·7	34
		...	...	...	...	...	...	...	...	...	...	11·36	11·36	...	...	...	11·36	...	...	68·18		...	...	...	..
Taragarh	43	...	...	...	...	186·0	...	...	...	...	...	...	46·5	...	23·3	46·5	...	23·3	627·9	1488·4	107·7	116·3	...	418·6	93
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Mount Abu	73	...	...	...	...	534·2	...	...	...	...	27·4	13·7	...	13·7	...	...	27·4	41·1	397·3	1493·1	90·5	41·1	54·8	205·5	95
		...	...	...	...	...	...	...	...	...	13·70	13·70	...	...	...	...	13·70	...	...	54·79		...	...	...	..
Pachmarhi	83	...	...	...	12·0	481·9	...	60·2	...	...	12·0	...	...	...	48·2	24·1	12·0	...	469·9	1494·0	76·9	120·5	48·2	120·5	180
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Purandhur	102	...	...	...	...	284·3	...	...	...	...	19·6	9·8	...	39·2	9·8	...	...	19·6	205·9	1137·3	62·6	...	19·6	127·5	58
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..

* Derived from the aggregates.

† Worked on the aggregates.

ATIONS, OUPS AND MMANDS.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	2. Death-rate. Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
andalla .	66	...	...	...	...	303·0	...	...	...	...	...	...	...	...	30·3	...	...	15·2	439·4	1106·1	49·1	30·3	90·9	212·1	106·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
llington .	1,622	...	...	...	11·7	67·5	8·8	...	1·0	...	8·8	1·0	3·9	11·7	23·5	7·8	2·0	10·8	366·9	951·1	94·9	79·3	44·0	99·8	143·8
		...	...	...	2·94	...	...	...	...	...	...	...	...	...	...	...	1·96	...	·98	8·81		...	...	·98	...
OUP XII δ— l Con- alescent epôts, and anitaria.	* 3,156	4·8	...	...	14·9	158·7	5·4	3·2	4·8	...	11·7	3·8	6·0	14·9	22·8	22·8	4·4	13·6	389·4	1138·1	† 88·4	88·4	37·4	132·1	131·5
		·32	...	...	3·17	·32	·63	...	...	...	·32	·63	1·58	...	·32	...	2·22	...	·32	14·89		...	...	·32	...
ops arching, engal.	307	...	13·0	3·3	55·4	413·7	22·8	3·3	...	...	6·5	6·5	3·3	19·5	71·7	32·6	...	19·5	469·1	1,400·7	19·5	61·9	159·6	48·9	198·7
		...	16·29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16·29		...	...	...	...
ops arching, unjab.	666	...	1·5	...	64·6	627·6	132·1	4·5	1·5	31·5	13·5	...	9·0	12·0	72·1	30·0	...	33·0	145·6	1390·4	8·4	45·0	12·0	12·0	76·6
		...	1·50	...	4·50	1·50	...	...	...	4·50	...	...	1·50	...	3·00	...	...	...	...	22·52		...	...	...	...
ops arching, adras.	50	...	...	...	20·0	20·0	40·0	60·0	...	...	...	...	...	...	...	...	...	...	420·0	760·0	22·6	60·0	40·0	60·0	260·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
ops arching, ombay.	45	...	...	...	...	333·3	...	...	...	...	...	...	22·2	...	...	...	...	44·4	222·2	777·8	3·1	66·7	...	...	155·6
		...	...	...	...	...	...	...	...	22·22	...	...	...	...	...	...	...	...	...	44·44		...	...	...	...
hi Field rce.	622	...	...	...	94·9	1233·1	209·0	4·8	...	62·7	4·8	...	3·2	20·9	596·5	339·2	...	3·2	91·6	2958·2	180·1	20·9	14·5	11·3	45·0
		...	...	...	48·23	9·65	17·68	...	...	3·22	...	...	...	1·61	104·50	16·08	...	...	...	210·61		...	...	...	...
lakand eld rce.	1,130	...	·9	...	36·3	960·2	266·4	59·3	·9	55·8	5·3	...	8·8	17·7	100·9	41·6	·9	7·1	107·1	2075·2	77·6	31·9	7·1	41·6	26·5
		...	...	...	6·19	·88	...	...	...	7·08	...	...	1·77	·88	1·77	...	·88	...	...	33·63		...	...	...	...
hat- arram eld rce.	275	...	...	...	14·5	1389·1	21·8	10·9	...	...	18·2	...	...	25·5	203·6	80·0	...	3·6	229·1	2421·8	17·34	90·9	14·5	50·9	72·7
		...	...	...	7·27	...	...	...	...	...	...	...	...	...	14·55	...	...	...	...	21·82		...	...	...	...
hmund eld rce.	136	...	...	...	22·1	1529·4	7·4	477·9	...	44·1	...	...	7·4	14·7	88·2	58·8	...	7·4	58·8	2955·9	54·6	7·4	29·4	7·4	14·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7·35		...	...	...	...
ah Field rce.	1,701	...	...	...	33·5	1318·6	66·4	27·0	1·7	1·7	5·3	1·7	9·4	59·4	210·5	188·7	·6	12·3	118·8	2591·4	98·1	40·0	12·9	26·5	39·4
		...	...	...	12·35	2·35	1·76	...	...	·59	...	·59	3·52	...	11·76	1·76	·59	1·18	...	104·64		...	...	...	...
blali epôt.	866	...	3·5	1·2	17·3	404·2	3·5	41·6	3·5	3·5	95·8	32·3	5·8	20·8	54·3	26·6	6·9	17·3	600·5	1728·6	72·9	110·9	100·5	219·4	169·7
		...	3·46	...	2·31	...	...	...	...	...	1·15	3·46	1·15	...	...	...	...	...	1·15	18·48		...	...	1·15	...
namallee epôt.	179	...	...	...	5·6	33·5	5·6	11·2	...	...	44·7	67·0	5·6	5·6	162·0	5·6	11·2	72·6	620·1	1446·9	388·4	61·5	...	463·7	95·0
		...	...	...	5·59	...	...	...	...	...	...	5·59	...	...	5·59	...	...	...	...	10·76		...	...	...	...
n . .	1,068	...	...	·9	...	239·7	17·8	135·8	...	5·6	5·6	3·7	·9	8·4	28·1	19·7	·9	3·7	441·0	1310·9	85·7	106·7	102·1	82·4	149·8
		...	...	...	...	...	·94	...	...	...	...	...	...	...	...	...	·94	...	1·87	6·55		...	...	1·87	...
dia .	* 68,395	4·0	1·7	·4	32·4	394·7	25·4	42·9	2·1	5·4	11·0	4·2	3·4	23·7	45·7	33·2	2·1	17·5	485·7	1556·9	† 101·4	120·6	81·1	101·9	182·1
		·01	1·17	·06	9·01	·41	·60	·01	·01	·91	·56	·56	·60	·10	2·53	·23	1·29	·03	·34	22·93		·01	...	·32	...
		·1	...	...	4·3	12·1	1·3	1·8	·3	·2	1·1	·8	·3	1·3	2·4	·9	·3	1·3	43·7	95·65		11·4	6·6	11·0	14·8
NGAL .	* 20,113	9·2	4·6	·5	39·1	356·1	13·6	48·7	2·9	4·7	13·0	3·5	3·2	20·1	38·1	29·9	3·0	21·3	600·0	1619·4	† 112·9	137·3	106·1	122·3	234·3
		...	3·28	·05	10·39	·30	·10	...	·05	1·19	·65	·35	·45	·10	1·04	...	2·09	...	·30	23·32		...	...	·30	...
NJAB .	* 17,190	1·0	·2	·2	42·1	442·3	25·3	24·9	2·4	5·9	9·0	3·7	4·9	22·5	32·1	30·7	1·4	11·3	404·2	1460·2	† 93·4	108·2	63·4	70·5	162·1
		·06	·12	·17	11·05	·47	·70	...	...	·70	·70	·76	1·11	·12	1·75	·12	·76	...	·29	21·52		...	...	·29	...
ADRAS .	* 12,369	5·5	·6	·3	19·2	121·5	24·7	69·0	1·0	1·1	8·6	6·5	2·3	23·4	44·9	9·1	2·0	25·7	541·7	1353·9	† 104·5	180·0	45·4	135·7	180·6
		...	·32	...	4·93	·16	·49	...	...	·57	·49	·73	·16	...	1·13	...	1·13	...	·57	13·10		·08	...	·49	...
MBAY .	* 14,859	·1	·7	·3	20·4	406·4	11·4	32·8	1·7	3·2	13·9	4·6	1·9	22·2	22·9	28·3	2·4	15·3	474·7	1508·0	† 92·3	84·9	115·4	101·2	173·3
		...	·54	...	6·46	·07	·47	·07	...	·54	·47	·54	·20	·07	·34	·07	1·14	...	·34	14·33		...	...	·34	...
cknow‡ .	2,515	2·0	...	·1	5·9	6·0	1·1	5·2	·1	·2	·5	·3	·4	·7	3·7	1·0	·7	1·3	46·8	98·3	98·3	15·5	1·1	13·9	16·3
eerut .	2,045	...	...	·1	7·5	19·0	1·3	·6	·3	·2	·8	1·1	·2	1·2	1·2	·5	·2	1·3	52·1	111·2	111·2	9·3	16·5	13·0	13·2
mballa .	2,154	...	...	...	6·0	12·1	·5	·7	·1	·5	·5	·9	·3	1·1	2·7	·9	·2	1·3	46·8	102·6	102·6	15·5	8·2	7·3	15·8
awalpindi .	2,953	...	...	...	5·7	15·7	·5	1·1	·3	·1	·9	·4	·4	1·8	2·2	1·3	·2	·8	35·8	88·7	88·7	14·3	·6	6·3	14·7
ietta .	2,307	...	...	...	4·9	6·5	3·8	·3	·5	...	1·6	·4	·1	1·2	3·9	·8	·3	·4	45·6	96·0	96·0	9·2	13·6	7·5	15·4
underabad	2,622	...	·1	·1	4·6	8·6	·9	5·3	...	·1	1·8	1·0	·1	2·0	4·6	·2	·1	1·8	55·5	109·0	109·0	23·0	1·7	14·6	16·1

* Derived from the aggregates. † Worked on the aggregates. § Excluding Field Forces.
‡ Constantly sick-rate per 1,000 by diseases at the largest stations.

TABLE IV.

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables I–III have been calculated.

Stations and Groups.	Average annual strength.	1. Admissions.													2. Deaths.										3. Constantly sick.		
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
Port Blair	141	...	...	...	1	8	...	8	...	...	1	1	...	1	3	5	1	2	24	104	2	3	7	22	...	...
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
		...	...	...	·068	·17	...	·35	...	...	·04	...	...	·07	·14	·16	·06	·12	1·85	4·38	·16	·15	·63	·92	...	...
Rangoon	1,060	62	...	...	24	49	6	93	...	1	9	1	...	23	56	2	2	34	750	1,668	245	60	161	277	1	...
		...	...	...	7	...	...	...	...	1	1	...	...	...	2	...	1	...	...	13	...	...	...	...	...	...
		2·60	...	...	4·24	2·23	·54	3·69	...	·08	1·49	·14	...	1·64	5·40	·03	·27	3·27	71·48	136·52	23·01	5·00	19·52	24·95	·17	·9
Group I.—Burma Coast and Bay Islands.	1,202*	62	...	...	25	57	6	101	...	1	10	2	...	24	59	7	3	36	774	1,772	247	63	175	289	1	...
		...	...	...	8	...	...	...	...	1	1	...	...	...	2	...	1	...	14	8	...	...	...	...	...	...
		2·60	...	...	4·31	2·40	·54	3·94	...	·08	1·53	·14	...	1·71	5·54	·19	·33	3·39	74·33	140·90	23·17	5·15	20·15	23·86	·17	·9
Thayetmyo	551	...	...	...	...	23	...	111	2	1	6	...	1	10	11	11	...	14	339	811	134	35	78	92	...	...
		...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
		...	...	...	...	·75	...	4·00	·14	...	·45	·81	·13	·71	1·39	·35	...	·84	35·05	59·79	13·23	3·11	9·44	9·27	...	...
Meiktila	389	...	...	...	...	16	1	23	2	2	...	1	...	6	7	...	...	...	194	476	32	40	42	80	...	...
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	...	1	...	...	...
		...	...	...	...	·58	·07	·73	·19	·19	...	·34	...	·09	1·25	...	...	·07	20·13	36·67	4·72	2·97	4·48	7·97	...	...
Fort Dufferin	1,004	1	...	2	2	128	231	148	3	...	8	4	2	45	35	31	...	15	509	1,758	181	33	128	167	6	...
		...	...	...	2	...	4	...	...	...	...	1	...	...	3	...	...	...	14	...	...	...	...	...	...	...
		·02	...	·27	·15	6·70	10·25	5·64	·31	...	·94	·04	·16	4·73	1·95	·80	...	1·23	56·09	120·37	15·27	3·15	18·22	13·45	·21	...
Shwebo	459	...	...	...	1	77	3	...	1	...	3	3	...	8	16	5	...	11	367	678	116	57	62	132	...	...
		...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	4	...	...	...	...	...	...	...
		...	...	...	·03	2·62	·40	...	·48	...	·59	·90	...	3·38	1·02	·13	...	1·13	31·65	51·72	10·21	2·82	8·14	10·48	...	...
Bhamo	275	...	...	...	...	111	2	...	...	...	1	4	4	11	5	8	1	5	86	317	37	4	23	28	...	...
		...	...	...	...	1	...	...	...	...	...	1	1	2	...	1	...	...	...	3	...	...	...	...	...	...
		...	...	...	...	3·86	·06	...	·08	...	·16	·90	·14	·51	·21	·12	·03	·43	5·43	14·82	3·21	·21	1·17	·84	...	...
Group II.—Burma Island.	2,678*	1	...	2	3	355	237	282	6	3	18	12	3	80	74	55	1	45	1,495	4,050	500	169	333	493	...	...
		...	...	...	3	...	5	...	...	1	1	1	2	...	3	...	1	...	1	29	...	...	1	...	...	...
		·01	...	·07	·17	14·51	10·78	10·37	·13	·19	·84	·19	·43	7·62	5·72	1·40	·03	3·70	142·35	283·37	46·63	12·26	41·45	42·01	·21	...
Fort William	1,055	...	3	...	...	100	54	81	1	6	29	2	2	53	41	42	1	20	522	1,540	135	80	72	234	5	...
		...	3	...	...	...	...	...	...	...	1	1	...	1	...	...	2	...	...	5	...	...	...	...	...	...
		...	·01	...	·09	4·45	3·18	3·77	·21	·46	3·94	·61	·26	2·47	3·69	1·29	·09	2·36	52·52	114·30	14·44	7·69	8·84	21·55	·23	...
Fort Fulta	20	...	...	...	...	6	...	...	...	...	...	...	...	...	1	2	...	...	7	20	1	1	...	5	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	...	·09	...	...	...	...	...	...	...	...	·01	·02	...	...	·02	·16	...	...	...	·02	...	...
Fort Chingrikhal	32	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1	9	15	...	4	...	5	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	·01	...	...	...	...	...	...	...	...	...	·01	...	...	...	·04	·08	...	·03	...	·01	...	...
Dum-Dum	829	...	...	1	1	267	1	...	...	3	7	7	3	8	38	10	5	27	304	858	30	56	38	80	...	...
		...	...	1	...	1	...	...	...	2	...	2	...	...	...	...	5	...	...	17	...	...	...	...	...	...
		...	...	·02	·49	12·10	·09	...	...	·01	1·53	1·55	·08	·85	2·40	·50	·60	1·83	19·77	56·79	2·86	5·81	5·16	5·94	...	...
Barrackpore	332	...	...	...	23	498	1	...	...	1	2	2	2	7	58	11	7	15	195	967	22	71	17	85	...	...
		...	...	...	1	2	...	...	...	...	...	1	...	...	9	...	6	...	...	19	...	...	...	...	...	...
		...	...	...	3·66	13·01	·03	...	·06	·01	·21	·25	·12	·41	4·96	·20	·69	1·00	13·39	41·91	1·46	4·78	1·48	5·67	...	...
Group IV.—Bengal and Orissa.	2,369*	...	3	1	25	871	56	81	1	9	38	11	6	68	130	65	13	63	937	3,406	189	212	227	409	5	...
		...	3	1	1	3	...	...	...	2	1	4	1	1	9	...	13	...	...	44	...	...	...	...	...	...
		...	·01	·01	4·25	29·65	3·30	3·77	·27	·48	5·68	2·41	·30	3·73	11·07	2·01	1·38	5·39	85·74	216·44	18·76	18·31	15·48	33·19	·23	...
B.																										
Dinapore	385	5	...	1	7	175	15	...	...	1	3	5	4	10	23	47	3	21	614	1,232	236	14	139	225	6	...
		...	...	...	2	...	...	...	...	...	...	1	2	...	3	...	2	...	1	16	...	...	1	...	...	...
		·13	...	·17	1·78	6·20	·96	...	...	·03	·52	1·38	·19	·66	1·67	2·14	·41	1·38	51·44	84·44	20·91	1·74	13·72	16·07	·15	...
Benares	343	...	...	...	42	39	19	102	...	3	7	...	...	11	20	36	1	18	253	731	12	89	18	136	4	...
		...	...	...	9	...	...	...	...	1	1	...	...	...	1	...	1	...	...	13	...	...	...	...	...	...
		...	...	...	6·83	1·25	2·15	3·84	...	·07	·68	...	...	·58	1·79	1·22	·04	1·32	22·76	51·83	1·09	3·08	2·59	12·00	·09	...
Allahabad	915	...	1	...	41	299	3	38	...	7	6	1	5	8	53	24	2	10	640	1,306	83	226	83	248	...	...
		...	1	...	14	...	...	...	...	...	3	...	1	...	1	...	2	...	...	21	...	...	...	...	...	...
		...	...	...	8·51	11·28	·22	1·97	...	·49	·24	·30	·58	·53	3·92	1·20	·11	·82	61·01	109·04	8·27	23·74	9·00	22·00	...	...
Fort Allahabad	301	...	3	...	9	41	...	94	2	2	2	3	1	4	2	8	...	2	130	435	13	34	38	45	1	...
		...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
		...	·08	...	·97	·70	...	2·35	·04	·42	·20	·75	·09	·21	·04	·30	...	·06	9·54	21·65	1·64	1·89	2·89	3·22	·02	...
Fyzabad	773	...	1	...	9	133	...	...	...	5	21	3	1	8	28	19	1	12	492	1,030	75	154	86	177	3	...
		...	1	...	2	...	...	...	...	4	1	1	...	...	...	...	...	...	...	10	...	...	...	...	...	...
		...	·01	...	1·28	5·42	...	...	...	·06	1·37	·62	·06	·65	4·26	·67	·23	1·22	47·80	86·37	8·72	13·84	9·31	15·93	·04	...
Sitapur	407	...	65	3	5	84	7	9	...	3	1	3	1	12	5	8	...	10	308	684	8	106	87	107	1	...
		...	40	...	5	...	...	...	...	1	...	...	...	...	...	...	...	...	...	47	...	...	...	...	...	...
		...	1·69	·32	·45	3·02	·55	·27	...	·14	·15	·71	·09	·54	·18	·25	...	·50	27·84	46·45	1·14	9·53	6·97	10·30	·02	...
Lucknow	2,515	147	1	3	122	467	41	321	3	9	9	5	3	22	111	63	9	47	1,140	3,186	393	37	243	467	11	...
		...	1	...	30	...	...	...	...	3	...	...	...	...	3	...	5	...	...	46	...	...	...	...	...	...
		5·14	...	·33	14·82	15·18	2·87	13·06	·13	·53	1·22	·88	1·06	1·70	9·27	2·44	1·64	3·34	117·36	247·19	39·07	2·38	34·93	40·92	·27	...
Cawnpore	698	...	1	...	12	347	3	...	1	4	21	3	2	18	28	14	3	18	512	1,321	199	...	94	219	...	...
		...	1	...	3	...	...	...	...	...	2	1	...	...	3	...	1	...	...	21	...	...	...	...	...	...
		...	...	...	2·02	12·38	·58	...	·03	·35	1·25	·34	·13	1·08	2·79	·51	·89	1·02	40·56	75·32	15·99	...	10·69	13·88	...	...
Fatehgarh	196	...	...	...	5	201	7	...	...	...	4	...	...	3	5	1	1	9	124	337	44	7	25	48	1	...
		...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
		...	...	...	·40	8·59	·51	...	...	...	·17	...	...	·12	·28	·07	·05	·36	8·49	15·32	3·13	·28	1·61	3·47	·02	...
Group V.—Ganges Plain and Chutia Nagpur.	6,833*	152	72	7	252	1,686	95	554	5	33	64	22	17	96	277	226	20	147	4,215	10,341	1,063	667	813	1,672	26	...
		...	45	...	70	...	...	...	...	8	6	3	2	...	11	...	13	...	1	172	...	...	1	...	...	...
		5·29	1·78	·82	36·96	57·02	8·04	28·49	·20	2·09	5·64	4·98	2·20	5·96	24·10	5·80	2·67	10·42	389·20	737·81	99·96	60·88	91·77	136·59	·62	...

* Derived from the aggregates.

Stations and Groups.	Average annual strength.	1. Admissions.												2. Deaths.				3. Constantly sick.								
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
A																										
Shjahanpur	425	...	...	...	2	80	2	2	...	1	5	11	4	8	9	10	...	8	416	738	87	41	91	197	...	...
		...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
		...	...	...	·68	2·66	·19	·14	...	·04	·42	·11	·33	·62	·70	·30	...	·96	35·05	54·13	7·47	3·54	8·31	15·72	...	...
Delhi	1,091	...	...	...	16	242	2	97	5	3	37	8	2	25	48	32	1	27	815	1,864	208	32	165	350	1	...
		...	...	...	6	...	...	...	...	...	1	...	...	...	...	...	1	...	2	12	...	...	2	...	...	...
		...	...	...	2·22	8·56	·41	3·47	·51	·13	4·03	1·31	·13	1·65	4·14	1·09	·19	1·25	72·59	130·49	23·26	3·41	20·49	25·43	·01	...
Derkee	379	...	...	...	1	46	1	...	...	...	1	1	...	2	1	3	1	5	205	393	16	43	31	115	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...
		...	...	...	·46	1·42	·03	...	...	...	·35	·55	...	·29	·03	·08	·05	·23	19·27	32·68	2·36	4·27	4·48	8·26	·07	...
Meerut	2,045	...	...	3	97	838	18	24	6	10	16	4	6	34	33	27	3	26	1,056	3,013	182	332	218	324	...	...
		...	...	...	38	...	...	...	...	3	...	...	1	...	2	...	2	...	...	9	...	...	...	...	...	...
		...	...	·23	15·42	38·76	2·63	1·16	·55	·39	1·63	2·39	·48	2·42	2·34	1·63	·45	2·61	105·45	227·41	19·02	33·81	28·04	26·58	...	...
Ghi	295	...	1	...	3	325	40	13	...	3	2	...	1	7	4	3	...	7	107	642	37	19	27	34	1	...
		...	1	...	1	...	...	...	...	2	1	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...
		...	·01	·03	·74	8·54	1·49	·76	...	·01	·02	...	·19	·19	·35	·18	...	·75	9·28	25·81	4·07	1·43	1·36	2·16	·02	...
Kohalla	2,154	3	3	...	135	683	9	30	2	24	13	4	8	31	61	78	2	25	1,013	3,039	339	179	136	339	16	...
		...	1	...	33	...	1	...	...	...	...	2	2	...	5	...	...	...	1	49	...	...	1	...	...	...
		·06	·08	...	12·84	36·17	1·18	1·60	·15	1·03	1·14	1·93	·74	2·47	5·79	4·95	·48	2·84	100·85	221·10	23·41	17·74	15·64	34·06	·36	...
B																										
Jullundur	675	...	...	...	14	300	12	11	...	3	4	1	4	10	19	17	1	5	369	988	74	83	40	107	...	...
		...	...	...	5	...	...	...	...	...	...	1	...	...	...	...	1	...	...	8	...	...	...	...	...	...
		...	...	...	1·86	9·85	·65	·29	...	·27	·45	·01	·34	·40	1·30	·49	·21	·34	31·86	61·96	6·23	8·79	3·89	12·95	...	...
Ferozepore	991	...	...	...	12	841	2	33	2	2	30	3	5	39	23	27	1	17	546	2,146	98	105	110	233	9	...
		...	...	...	1	1	...	...	...	...	...	...	...	1	1	1	...	...	...	9	...	...	...	...	...	...
		...	...	...	1·53	29·44	·55	·83	·11	·88	3·69	·53	·53	1·86	4·33	·90	·10	1·27	41·23	115·32	8·34	6·91	11·27	14·71	·48	...
Amritsar	315	...	...	...	13	76	25	...	...	...	5	...	2	8	4	10	...	5	156	402	31	45	18	62	...	...
		...	...	...	2	...	1	...	...	...	...	...	1	...	1	...	...	...	...	5	...	...	...	...	...	...
		...	...	...	2·01	3·62	1·62	...	...	...	·16	...	·14	1·00	·17	·58	...	·11	19·68	24·42	2·53	3·36	1·21	3·58	...	...
Jhelum	818	...	1	3	14	606	5	32	1	9	6	4	1	13	29	9	...	4	226	1,375	48	...	75	103	1	...
		...	...	3	4	3	...	...	...	5	1	2	...	...	1	...	...	...	...	21	...	...	1	...	...	...
		...	·05	·10	3·75	22·40	·47	1·06	·43	·53	·65	1·28	·28	·41	1·20	·62	...	·21	18·40	69·72	4·33	·31	6·43	7·38	·03	...
Fort Lahore	102	...	...	1	6	103	9	8	...	1	1	...	...	2	3	1	...	1	27	206	9	3	5	11	...	...
		...	...	...	3	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
		...	...	·31	·69	3·42	·88	·21	...	...	·17	...	...	·06	·18	·05	...	·05	2·04	10·39	1·06	·04	·25	·69	...	...
Sialkot	966	...	...	...	15	157	18	91	1	3	5	1	1	18	23	23	1	12	388	1,070	175	25	63	124	...	...
		...	...	...	9	...	...	...	...	...	2	1	...	...	1	...	...	...	1	15	...	...	1	...	...	...
		...	...	·03	1·09	12·30	·63	5·50	·04	·36	·24	·13	·05	·44	1·40	·70	·90	·99	24·47	69·27	9·83	1·15	4·53	8·04	...	...
Rawalpindi	2,953	...	...	...	95	1,251	22	54	5	7	25	11	13	133	108	78	5	34	1,108	3,962	408	54	177	459	6	...
		...	...	...	33	...	3	...	...	2	2	2	4	...	5	1	1	...	1	53	...	...	1	...	...	...
		...	...	...	16·84	46·35	1·43	3·23	·87	·40	2·61	1·08	1·00	5·55	6·50	3·88	·47	2·37	105·81	263·03	42·17	1·74	18·60	43·30	·08	...
Campbellpur	236	...	...	...	21	120	4	...	...	4	3	...	...	1	1	13	...	2	120	351	76	3	7	34	1	...
		...	...	...	5	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5	...	...	...	...	...	...
		...	...	...	3·02	3·94	·86	...	...	·27	·37	...	...	·05	·13	·39	...	·30	10·20	23·28	6·56	·31	·34	2·99	·01	...
Attock	155	...	...	...	5	40	3	...	...	...	...	2	2	3	8	2	2	5	80	209	19	1	11	49	...	...
		...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	1	...	...	4	...	...	...	...	...	...
		...	...	...	·77	3·08	·56	...	...	...	...	·34	·13	·09	·61	·06	·26	·29	4·73	13·41	·90	·02	·83	2·89	...	...
Group VI.—Upper Sub-Himalayan.	13,508*	3	4	6	452	5,708	172	397	32	69	154	30	52	335	374	333	17	183	6,632	20,318	1,868	969	1,164	2,631	36	...
		...	3	3	133	4	5	...	...	11	8	9	9	...	17	1	8	...	6	246	...	...	6	...	...	...
		·06	·14	·77	6·34	218·51	13·58	18·85	2·69	4·31	15·33	9·30	4·46	17·89	26·35	12·31	3·18	14·74	592·85	1,348·38	171·63	86·73	124·50	209·99	1·04	...
A																										
Nowshera	502	...	...	...	12	364	25	1	...	9	...	1	3	6	36	16	...	6	261	938	16	56	22	167	1	...
		...	...	...	4	...	...	...	...	1	...	1	1	...	2	...	...	...	...	10	...	...	...	...	...	...
		...	...	·05	1·79	6·98	1·61	·07	...	·32	·04	·34	·33	·30	2·08	·48	...	·13	24·83	54·32	1·50	6·30	2·15	14·28	·04	...
Peshawar	1,908	...	...	...	87	1,454	137	...	4	5	7	9	20	60	121	97	3	13	703	3,383	85	234	124	259	1	...
		...	...	...	53	...	3	4	...	1	4	1	6	...	9	1	3	...	...	98	...	...	...	...	...	...
		...	...	...	10·82	87·70	11·58	·27	·38	·97	·52	1·16	1·52	10·15	10·89	6·66	·23	1·48	68·40	259·20	9·81	23·11	14·71	30·77	·04	...
Kohat	1,043	...	...	...	2	598	5	140	1	14	4	5	4	14	6	25	1	2	327	1,655	43	70	50	155	8	...
		...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	6	...	...	...	...	...	...
		...	...	·42	14·94	·45	4·36	·08	1·03	·59	1·23	·49	·67	·51	1·38	·04	·13	30·45	84·53	4·79	6·75	6·31	12·48	·15	...
C																										
Hyderabad	371	...	1	...	1	267	13	...	...	3	5	1	...	4	17	1	...	5	137	685	51	7	21	45	...	...
		...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
		...	...	...	·08	7·09	1·14	...	...	·09	·40	·00	...	·14	·98	·02	...	·18	14·66	35·44	3·59	1·12	3·42	4·52	...	...
Karrachee	1,099	...	...	...	9	1,213	2	...	...	3	22	1	3	21	27	26	4	20	396	2,216	28	70	47	161	3	...
		...	...	...	4	...	...	...	...	1	1	...	...	...	...	...	1	...	...	11	...	...	...	...	...	...
		...	...	...	·64	32·86	·13	...	...	·03	1·38	·27	·07	·85	1·24	·56	·27	·69	21·68	83·68	2·59	4·18	5·10	10·74	·04	...
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	4,983*	...	1	...	111	3,795	182	141	5	34	38	18	30	165	207	166	8	46	1,783	8,878	222	437	277	787	13	...
		...	1	...	65	3	5	...	...	3	7	2	7	11	11	1	5	...	122	...	...	...	...	...	...	...
		...	...	·05	13·75	149·57	14·91	4·70	·46	2·44	2·91	2·96	2·41	12·20	15·53	9·30	·59	2·61	160·35	517·17	24·10	41·46	31·90	62·89	·27	...

* Derived from the aggregates.

TABLE IV—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables I—III have been calculated.

Stations and Groups.	Average annual strength.	1. Admissions. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
A Deesa	339	...	...	...	15	222	8	22	...	13	3	1	...	8	9	17	1	11	192	685	25	47	31	89	1	
		...	...	...	7	...	...	...	...	1	...	...	...	...	...	...	1	...	...	12	...	...	...	...	...	
		...	...	·18	1·91	7·22	·65	·81	...	·73	·13	·21	...	·22	·30	·05	·07	·60	13·99	33·21	1·79	3·40	2·75	7·05	·02	
Ahmedabad	240	...	...	1	2	215	4	2	...	5	4	...	1	25	4	4	1	15	219	715	10	114	34	61	1	
		...	...	...	1	...	2	...	...	1	...	...	...	...	...	...	1	...	...	6	...	...	...	...	...	
		...	...	·09	·34	6·00	·42	·07	...	·26	·06	·07	·12	1·13	·12	·09	·30	1·05	16·61	38·21	·91	8·25	3·06	4·39	·02	
B Neemuch	319	...	...	...	7	405	8	2	...	...	3	1	...	13	12	7	2	4	207	818	17	67	59	73	...	
		...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	
		...	...	...	1·04	12·21	·56	·10	...	...	·53	·08	·04	·88	1·04	·20	·39	·25	17·06	43·04	1·56	4·66	3·80	7·04	...	
Nasirabad	698	...	4	...	25	234	5	...	...	1	19	3	1	25	21	11	1	22	505	1,218	227	31	99	148	1	
		...	3	...	12	...	...	...	...	1	...	1	...	...	...	...	1	...	...	19	...	...	...	...	...	
		...	·05	...	2·48	7·87	·40	...	...	...	2·07	·45	·12	1·87	·96	·59	·12	1·20	38·74	76·75	17·31	1·64	10·03	9·76	·01	
Muttra	540	...	9	...	16	495	1	2	1	3	4	...	1	11	2	42	2	10	202	1,058	45	18	50	89	5	
		...	8	...	5	...	...	...	...	...	1	...	...	...	...	...	1	...	...	17	...	...	...	...	...	
		...	·09	...	1·43	10·86	·15	·19	·09	·17	·62	...	·03	·47	·08	·92	·19	·58	17·79	46·17	3·43	1·63	5·65	7·08	·07	
Agra	1,088	...	1	...	281	497	2	125	2	18	9	2	6	12	63	18	7	13	604	1,974	136	107	79	292	4	
		...	1	...	49	...	...	...	...	3	1	...	1	...	3	...	3	...	1	63	...	...	1	...	...	
		...	...	...	25·72	21·35	·21	5·28	·28	·84	1·26	·40	·48	·32	4·11	1·09	·90	1·05	47·87	130·85	10·99	3·50	6·78	26·60	·09	
Jhansi	769	...	4	...	63	360	...	23	2	9	14	4	1	15	43	25	3	10	535	1,530	126	76	110	323	...	
		...	4	...	17	...	...	...	...	1	...	...	1	...	3	...	3	...	1	34	...	1	...	...	...	
		...	·01	...	0·38	10·12	...	1·15	·13	·61	1·98	·55	·02	·52	3·87	·62	·20	1·13	74·77	138·58	22·73	8·43	18·79	34·82	...	
Nowgong	416	...	...	...	1	554	6	15	...	4	12	...	...	13	5	10	...	11	339	1,224	38	99	59	163	...	
		...	...	...	1	1	...	...	...	2	...	...	...	1	1	...	...	...	...	7	...	...	...	...	...	
		...	...	...	·05	26·21	·64	·49	...	·30	2·27	...	...	·79	·49	·41	...	1·04	33·52	84·33	3·82	9·77	6·01	13·92	...	
Indore	89	...	...	...	1	40	2	...	...	...	...	1	...	2	3	2	...	1	38	120	7	4	12	15	...	
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
		...	...	...	·03	1·29	·15	...	...	...	...	·03	...	·08	·23	·09	...	·03	3·74	6·84	·88	·52	·86	1·48	...	
Mhow	1,652	1	...	...	81	571	54	86	...	2	9	5	2	37	48	99	2	41	803	2,678	163	122	228	290	4	
		...	...	...	28	...	1	...	...	...	...	2	...	1	2	...	1	...	...	38	...	...	...	...	...	
		·01	...	...	14·24	18·07	5·00	6·66	...	·17	1·30	1·40	·30	1·75	3·01	2·06	·50	2·48	84·42	289·53	17·66	10·22	29·74	26·81	·80	
Group VIII—S.-E. Rajputana, Central India, and Gujarat.	6,150*	1	18	3	392	3,593	90	376	5	55	77	17	12	160	210	231	19	137	3,664	12,050	784	685	752	1,443	16	
		...	16	...	126	...	1	...	...	11	2	2	2	8·03	9	...	11	...	2	203	...	...	2	...	...	
		·01	·15	·27	54·62	127·86	8·24	14·73	·50	3·08	10·22	3·28	1·04	14·30	7·02	2·67	9·41	348·51	785·51	81·05	51·01	87·47	128·95	·32	
A Saugor	276	...	...	...	2	147	3	...	3	...	...	...	1	2	3	3	...	5	250	479	122	24	24	93	...	
		...	...	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	
		...	...	...	·09	3·94	·14	...	·25	...	·10	...	·31	·05	·24	·11	...	·39	21·93	31·31	9·30	3·03	2·80	6·80	...	
Jubbulpore	739	...	...	...	23	685	22	...	1	2	13	1	...	17	31	28	4	28	490	1,737	88	133	128	150	3	
		...	...	...	5	1	...	...	1	...	...	...	...	...	3	...	4	...	...	14	...	...	...	...	...	
		...	...	...	2·69	27·43	3·14	...	·01	·09	·34	·01	...	1·07	3·15	2·60	·49	2·50	40·24	109·80	8·05	4·47	11·41	10·31	·04	
Kamptee	866	...	1	...	10	265	6	88	6	5	1	1	...	16	8	19	1	3	620	1,531	37	253	68	260	2	
		...	1	...	4	...	...	...	...	1	...	...	...	...	...	...	1	...	...	10	...	...	...	...	...	
		...	...	...	1·71	10·41	1·03	3·43	·57	·24	·06	·13	·07	·56	·50	·58	·08	·40	35·96	108·69	4·09	23·40	7·85	22·62	·04	
Sitabaldi	52	...	...	...	...	41	...	4	...	...	...	...	...	...	1	...	...	...	30	95	7	7	1	15	...	
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
		...	...	...	...	·48	...	·04	...	...	...	...	...	...	·02	...	...	...	·73	1·69	·15	·21	·03	·34	...	
B Secunderabad	2,622	4	4	2	95	345	27	228	1	4	23	15	3	85	153	27	3	68	1,516	3,556	654	89	308	465	1	1
		...	2	...	23	...	...	...	...	...	1	2	...	...	4	...	...	...	2	47	...	...	2	...	...	
		·13	·19	·21	12·15	22·61	2·43	14·00	·02	·36	4·83	2·56	·29	5·29	13·11	·60	·16	4·65	145·40	285·82	60·39	4·47	38·21	42·33	·02	·01
Belgam	883	...	3	...	4	892	...	...	2	1	7	28	3	12	39	...	3	9	560	1,119	199	16	204	143	1	
		...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...	...	7	...	...	...	...	...	
		...	·03	...	·03	4·45	...	...	·12	·35	·80	5·42	·16	·64	3·60	...	·22	·51	50·28	82·08	19·77	·89	19·64	9·98	·01	
Satara	154	...	...	...	...	96	...	...	...	...	3	...	...	...	3	1	1	3	75	230	14	7	13	41	3	
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	3	...	...	...	...	...	
		...	...	...	...	3·38	...	...	...	...	·46	...	...	...	·10	·02	·02	·87	6·69	14·19	1·40	·59	1·69	3·01	·03	
Poona	1,083	...	1	...	36	680	4	24	3	1	6	4	7	37	23	53	2	32	855	2,302	136	198	184	337	3	
		...	...	...	5	1	...	...	...	...	...	...	...	...	...	...	3	...	...	15	...	...	...	...	...	
		...	·02	...	5·90	23·90	·48	1·29	·54	...	·56	1·03	·62	3·63	1·65	3·01	·11	3·39	73·53	149·62	13·83	15·37	21·37	23·96	·04	
Kirkee	730	...	1	...	15	317	2	2	3	1	1	2	...	6	7	10	3	9	308	1,032	83	34	81	110	1	
		...	...	...	5	...	...	...	...	...	1	...	...	...	...	1	3	...	...	11	...	...	...	...	...	
		...	·08	...	2·74	12·57	·20	·44	·59	·08	·28	·09	...	·30	·29	·23	·08	·59	30·15	68·61	10·16	2·63	8·67	9·21	·03	
Ahmednagar	506	...	...	...	30	167	...	24	...	3	1	1	1	16	18	53	1	6	230	769	22	17	55	136	4	
		...	...	...	11	...	...	...	...	1	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	
		...	...	...	4·11	4·65	...	2·01	...	·07	·01	·34	·12	·80	·96	1·27	·16	·44	21·82	46·38	2·12	·80	6·49	12·35	·08	
Group IX.—Deccan	* 8,865	4	10	2	215	2,955	64	375	18	17	56	52	15	191	284	196	18	163	4,943	13,990	1,252	777	1,066	1,748	17	1
		...	5	...	57	2	1	...	1	6	3	3	...	...	8	1	15	...	3	124	...	...	3	...	...	
		·13	·32	·21	30·02	112·52	7·43	30·21	2·01	1·80	7·32	9·58	1·47	18·24	22·62	7·42	8·38	12·65	447·73	890 89	129·26	54·90	117·66	145·93	·28	·01
Colaba	1,128	...	...	...	4	208	7	45	1	1	3	4	...	29	11	25	1	16	379	1,999	52	128	61	136	6	...
		...	...	...	1	...	...	1	...	...	1	...	1	...	...	...	...	...	1	13	...	...	1	...	...	
		...	...	...	1·33	12·65	1·46	6·13	·03	·02	·04	·86	·03	8·31	1·18	2·13	·03	1·79	27·64	88·30	4·51	8·12	5·32	9·69	·82	...
Cannanore	86	...	...	...	1	...	...	2	...	1	1	1	...	1	...	1	...	2	43	107	15	...	3	25	...	...
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
		...	...	...	·02	...	...	·06	...	·01	·02	·19	...	·06	...	·02	...	·07	3·24	6·13	1·08	...	·98	1·18	...	
Calicut	102	...	...	...	5	...	1	...	...	...	...	...	...	1	...	...	...	1	47	98	14	5	4	24	1	...
		...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
		...	...	...	·70	...	·14	...	...	...	...	·09	...	·04	...	...	...	·05	3·86	6·03	1·49	·13	·49	1·75	·01	
Mallapuram	155	...	...	...	5	...	1	5	...	...	2	...	...	10	9	...	...	1	55	199	13	...	14	27	...	
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
		...	...	...	·52	...	·96	·10	...	...	·13	...	...	·31	·21	...	...	·03	4·57	11·75	1·15	...	1·69	1·73	...	
Group X.—Western Coast.	1,471*	...	...	...	15	286	9	52	1	2	6	5	...	41	20	26	1	20	525	1,697	90	133	82	214	7	...
		...	...	...	5	...	...	1	...	...	1	...	1	...	...	...	1	...	2	17	...	...	1	...	...	
		...	...	...	2·05	12·65	1·66	6·29	·07	·07	·21	1·14	·02	2·72	1·39	2·15	·03	1·95	30·31	113·11	8·23	8·25	8·48	24·35	·13	...

* Derived from the aggregates.

Stations and Groups.	Average annual strength.	1. Admissions, 2. Deaths, 3. Constantly sick.																										
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remitent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
A																												
Bellary	883	...	1	...	8	169	2	1	...	...	8	5	1	25	19	5	1	35	340	881	110	21	126	83	4	...
		...	...	...	2	...	...	...	...	...	1	2	...	...	...	...	1	...	1	8	...	...	1	...	...	...
		...	·04	...	1·00	9·50	·35	·02	...	...	·75	1·50	·07	1·70	1·30	·11	·10	1·98	32·66	69·40	11·02	1·53	13·61	6·50	·10	...
Bangalore	1,667	1	...	...	67	73	12	162	...	1	16	2	5	19	92	6	10	76	807	20·92	207	72	235	203	...	...
		...	...	...	13	2	...	...	...	...	2	...	...	...	1	...	5	...	...	25	...	...	...	...	...	...
		·10	...	...	11·09	3·69	1·57	8·47	...	·16	...	·48	·50	·84	6·27	·13	·73	5·69	78·82	171·63	20·44	6·25	24·91	27·22	...	...
B																												
Chavaram	64	...	...	...	1	14	...	12	...	...	2	...	...	1	2	...	...	...	35	95	5	12	5	7	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	·25	·32	·04	·36	...	...	·20	...	...	·08	·07	...	...	...	2·38	5·67	·34	·82	·76	·46	...	...
St. Thomas' Mount	317	...	...	...	4	17	2	45	...	1	2	2	2	9	44	...	...	4	140	410	34	34	34	38	...	...
		...	...	...	3	...	...	...	...	2	...	...	...	...	1	...	...	...	1	10	1	...	...	...	...	...
		...	...	...	·35	·44	·08	1·54	...	...	·16	·19	·48	·31	2·34	...	...	·10	9·26	22·16	2·96	1·73	2·14	2·43	...	...
Madras	545	...	...	...	5	170	4	10	1	2	5	1	1	9	13	2	—	9	328	944	114	31	35	145	...	...
		...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	4	...	...	...	...	...	...
		...	...	...	1·14	5·52	·36	·11	·51	·00	·36	·18	·08	·16	·52	·02	...	·52	5·96	29·39	1·66	·46	1·09	2·73	...	...
Group XI.—South-ern India.	* 3,177	1	1	...	85	443	20	230	2	3	27	10	9	63	170	13	11	124	1,644	4,421	470	170	435	569	4	...
		...	...	...	18	2	1	...	...	1	3	3	...	...	3	...	6	...	2	48	1	...	1	...	...	...
		·10	·04	...	13·82	19·47	2·40	10·30	·07	·06	2·50	2·35	1·13	3·19	20·40	·26	·83	8·29	129·08	298·30	35·42	10·79	42·51	39·35	·10	...
Benaramyo	180	...	...	...	...	31	1	...	...	...	1	...	1	1	...	...	...	8	40	132	11	3	5	21	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...
		...	...	...	...	1·35	·04	...	...	...	·20	...	·28	·17	...	...	...	·72	3·40	8·58	·40	·40	·80	·80	...	...
Chaukhet	807	33	...	...	19	34	4	36	...	...	7	3	9	43	38	61	2	39	547	1,250	171	...	167	209	3	...
		...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	1	...	9	...	...	...	1	...	...	...
		1·22	...	...	3·15	·82	·33	2·35	·16	...	·49	·68	·68	1·44	4·23	2·03	·36	1·81	55·03	98·74	18·09	·02	19·20	17·12	·14	...
Chaubattia	273	...	...	...	1	6	...	...	1	...	2	...	3	2	2	3	...	5	182	297	43	7	50	82	...	...
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	·02	·19	...	...	·16	...	·24	...	·30	·08	·09	·60	...	·60	13·38	22·69	3·30	·30	4·08	5·70	...	...
Chakrata	749	...	...	...	54	44	11	...	28	...	19	11	3	11	21	14	1	17	713	1,295	105	240	205	253	2	...
		...	...	...	6	...	...	...	...	1	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...
		·14	...	...	10·14	1·55	·72	...	4·01	...	3·47	3·37	·18	·34	1·30	·43	·42	1·18	70·29	120·17	9·66	22·34	20·06	12·19	·05	...
Dalhousie	139	...	...	...	10	35	1	1	3	—	3	1	...	1	6	2	1	3	97	313	13	31	10	43	...	...
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	...	...	...	...
		...	...	...	1·71	1·09	·08	·08	·25	...	·07	·11	...	·05	·23	·01	·03	·52	9·72	17·70	1·37	3·41	1·15	3·79	...	...
Dagshai	538	...	...	...	75	47	...	15	1	...	3	...	...	7	8	15	...	6	200	597	54	33	29	84	1	...
		...	...	...	7	...	...	...	...	...	...	...	...	...	1	...	...	...	...	8	...	...	...	...	...	...
		...	...	...	12·13	1·73	...	·71	·20	...	·12	·01	...	·43	·45	·47	...	·38	17·21	45·05	6·38	2·12	2·72	5·59	·03	...
Dehra	425	1	...	...	33	58	12	...	6	...	9	...	...	4	8	12	...	2	171	455	10	80	34	47	2	...
		...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...
		·01	...	...	5·34	2·33	·94	...	·45	...	1·29	...	...	·30	·64	·31	...	·22	17·55	39·40	2·03	7·82	4·73	3·07	·03	...
Dhotogh	232	...	...	...	14	23	1	...	...	...	1	1	...	5	3	3	...	5	91	252	23	21	6	42	...	...
		...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	2·73	·84	·10	...	·15	...	·12	·20	...	·36	·10	·07	...	·30	7·56	17·22	2·23	1·24	1·00	3·09	...	...
Dhyragully	33	...	...	...	1	2	2	...	...	...	...	...	...	...	...	...	...	...	...	10	37	3	...	4	3	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	·21	·08	·28	...	...	...	...	...	...	...	...	...	...	...	·78	2·18	·28	...	·35	·21	...	...
Duragully	25	...	...	...	1	1	...	...	...	...	...	...	...	2	...	1	...	...	6	25	3	...	...	3	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	·25	·03	...	...	...	...	...	...	...	·04	...	·08	...	...	·80	1·56	·35	...	...	·45	·01	...
Fuldoonah	263	...	...	...	...	20	1	1	...	...	1	...	1	3	...	1	...	...	124	285	63	12	15	34	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...
		...	...	...	·32	·03	·03	·07	...	...	·13	...	·03	·07	·04	·01	...	...	12·11	17·70	5·82	1·11	2·04	3·14	...	...
Galabagh	41	...	...	...	...	3	...	...	...	...	1	...	...	...	...	...	...	1	9	27	3	...	3	1	...	...
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	...	·15	...	...	...	...	·26	...	...	...	...	...	...	·22	·50	1·77	·13	...	·28	·09	...	...
Gamp Ghariai	287	...	...	...	8	46	...	2	3	...	6	1	1	3	2	3	...	1	101	268	37	...	27	37	1	...
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	1·71	2·29	...	·09	·42	...	·70	·03	·05	·20	·12	·05	...	·07	8·37	19·19	3·31	...	2·07	3·99	·01	...
„ Thobbe	197	...	...	...	1	38	...	1	...	...	2	1	...	5	3	3	...	3	110	255	46	...	33	31	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	·36	1·12	...	·08	...	...	·03	·09	...	·21	·11	·05	...	·29	8·53	15·53	4·36	...	2·22	1·96	...	...
„ Lower Topa	58	...	...	...	1	54	1	...	...	...	1	...	...	3	2	1	1	4	18	119	...	8	3	7	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	3	...	...	...	...	...	...
		...	...	...	·07	1·09	·15	...	...	...	·04	...	...	·11	·08	·01	·01	·13	1·16	3·36	...	·37	·24	·55	...	...
Ghora Dhaka	79	...	...	...	...	5	2	...	...	...	...	...	...	...	2	...	...	1	38	66	8	...	8	22	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	·16	·08	...	...	...	...	...	...	...	·44	...	...	·03	3·63	5·81	·69	...	·84	2·10	...	...
Kherat	383	...	...	...	80	163	50	...	3	...	6	10	2	10	9	29	...	...	86	611	5	12	38	31	5	...
		...	...	...	21	...	1	...	...	1	1	...	...	1	1	...	...	...	...	30	...	...	...	...	...	...
		...	...	...	10·40	5·89	3·14	...	·32	·01	·98	1·12	·07	·50	·44	·70	...	...	8·01	40·05	·75	1·55	3·75	1·96	·08	...

* Derived from the aggregates.

TABLE IV—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables I—III have been calculated.

Stations and Groups.	Average annual strength.	1. Admissions.											2. Deaths.				3. Constantly sick.							
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
Quetta	2,307	...	...	...	52	300	32	4	9	1	34	8	4	50	48	44	6	12	1,052	2,651	159	308	177	318	5	...
		...	...	...	11	...	3	...	...	...	...	1	1	2	1	...	2	...	...	34	...	...	...	...	1	...
		...	...	...	22·53	13·07	8·66	·58	1·68	·08	3·58	·96	·14	2·06	9·06	1·95	·79	·94	105·17	221·50	21·12	31·35	17·20	35·30	·12	...
Ramandrug	33	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	18	25	6	...	9	3	...	...
		...	...	...	...	·13	...	...	...	...	...	...	...	...	...	...	...	...	1·47	1·83	·48	...	·59	·28	...	...
Group XIIa.—Hill Stations.	* 7,058	33	...	...	351	904	118	60	53	1	95	31	23	150	153	192	11	98	3,613	8,790	762	845	825	1,181	20	...
		...	...	...	59	37	3	...	5	2	3	2	1	2	5	5	...	...	3	100	...	...	3	...	...	...
		1·23	...	...	59·86	37·19	14·87	3·97	7·80	·03	10·71	6·57	1·75	6·96	17·33	6·70	1·61	7·18	343·62	694·72	81·71	71·33	89·43	101·15	·47	...
Darjeeling	492	...	...	...	4	56	1	...	1	...	5	1	...	9	15	9	2	7	153	447	25	29	67	32	...	...
		...	...	...	—	1	...	...	...	...	...	...	...	...	1	...	1	...	...	6	...	...	...	...	...	...
		...	...	...	·84	1·71	·61	...	·05	·20	·32	·08	...	·47	·92	·22	·20	·56	12·78	29·88	2·47	2·12	5·72	2·47	...	...
Naini Tal	123	...	...	...	4	18	2	...	3	...	8	...	3	3	6	9	...	2	45	139	7	3	21	14	...	...
		...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	6	...	...	...	...	...	...
		...	...	...	·74	·39	·42	...	·43	...	·60	...	·28	·37	·42	·30	...	·30	6·95	13·96	·92	·26	3·84	1·93	...	...
Landour	123	2	...	...	4	35	1	...	1	...	...	...	3	1	1	2	1	2	44	164	4	2	13	25	...	...
		·03	...	...	·61	1·34	·10	·04	·12	...	...	...	·21	·16	·13	·03	·34	·10	3·47	10·79	1·18	·12	·96	1·21	...	...
Kasauli	344	13	...	...	10	81	3	1	3	...	8	1	4	4	10	23	5	13	160	574	37	21	71	41	1	...
		1	...	...	5	...	1	...	...	...	...	...	...	...	...	2	...	...	...	10	...	...	...	...	...	...
		·34	...	...	1·94	3·21	·09	·07	·40	·01	·39	·20	·51	·23	·62	·97	·75	·83	13·62	36·10	2·71	·75	7·12	3·04	·01	...
Dalhousie	508	...	...	...	10	107	1	4	7	...	2	6	3	6	8	17	...	1	292	752	98	9	71	114	...	...
		...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	3	...	...	...	...	...	...
		...	...	...	2·20	3·41	·23	·41	·92	...	·08	·55	·20	·59	·63	·49	...	·19	22·04	45·78	8·66	·84	5·22	7·32	...	...
Murree	88	...	...	...	2	22	...	...	...	...	...	1	1	7	...	...	1	...	15	63	7	3	2	3	1	...
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	6	...	...	...	...	...	...
		...	...	...	1·63	1·91	1·30	·38	...	·36	·22	·37	·03	·01	...	...	·08	...	5·40	18·17	1·92	·27	2·25	1·05	·08	...
Taragarh	43	...	...	...	...	8	...	...	...	...	...	...	2	...	1	2	...	1	27	64	5	...	18	4	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	·16	...	...	...	...	...	...	·15	...	·03	·03	...	·19	2·79	4·63	·56	...	1·97	·26	...	...
Mount Abu	73	...	...	...	...	30	...	...	...	...	2	1	...	1	...	...	3	3	29	109	3	4	15	7	3	...
		...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	4	...	...	...	...	...	...
		...	...	...	·13	1·48	...	...	...	...	·02	·06	...	·02	...	...	·04	·08	2·48	6·04	·31	·44	1·13	·60	·07	...
Pachmarhi	83	...	...	...	1	40	...	5	...	...	1	...	...	...	4	2	1	...	32	124	10	4	10	15	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	·15	1·01	...	·15	...	...	·32	...	...	...	·23	·03	·10	...	3·41	6·38	·95	·23	·90	1·46	...	...
Purandhar	102	...	...	...	...	26	...	...	...	...	1	1	...	4	1	...	...	1	21	116	...	2	13	6	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	·83	...	...	...	...	·21	·06	...	·22	·04	...	...	·16	1·62	6·32	...	·24	·83	·49	·01	...
Khandalla	66	...	...	...	...	20	...	...	...	...	...	...	...	...	2	...	...	1	29	73	2	6	14	7	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	·46	...	...	...	...	...	...	...	...	·04	...	...	·02	1·84	3·24	·18	·26	1·02	·58	...	...
Wellington	1,022	...	...	...	12	69	9	...	1	...	9	1	4	12	24	8	2	11	375	972	81	45	103	147	...	...
		...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	2	...	1	9	...	...	1	...	...	...
		·03	...	...	2·59	5·04	1·18	·03	·12	...	1·43	·05	·52	1·38	2·48	·36	·69	·08	42·63	96·05	11·60	3·07	13·18	13·84	...	...
Group XII(3).—Hill Convalescent Depôts and Sanitaria.	* 3,156	15	...	...	47	501	17	10	15	...	37	12	19	47	72	72	14	43	1,229	3,392	279	118	487	415	6	...
		1	...	...	10	1	2	...	...	...	2	3	5	...	1	...	7	...	1	47	...	...	1	...	...	...
		·40	...	...	10·64	21·01	3·93	1·26	2·05	·57	3·99	1·38	1·68	3·96	5·52	2·34	2·76	3·41	119·03	278·86	31·46	9·40	44·10	34·07	·18	...
Troops marching, Bengal.	307	...	4	1	17	127	7	1	...	...	2	2	1	6	22	20	...	6	144	430	19	49	15	61	...	...
		...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
		...	·02	·01	·11	1·16	·04	·01	·01	...	·01	·08	...	·02	·15	·08	...	·09	2·90	6·20	·35	1·07	·73	·75	...	...
Troops marching, Punjab.	666	...	1	...	43	418	88	3	1	21	9	...	6	8	46	20	...	22	97	926	30	8	8	52	...	...
		...	2	...	3	1	...	...	...	3	...	...	1	...	2	...	...	...	...	15	...	...	...	...	...	...
		...	...	...	·32	1·07	·30	·03	...	·09	·04	...	·04	·08	·22	·10	...	·10	1·27	5·57	·50	·16	·13	·48	...	...
Troops marching, Madras.	50	...	...	...	1	1	2	3	...	...	...	...	...	...	...	...	...	...	21	38	3	2	2	13	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	·08	·05	·02	·05	...	...	...	·08	...	·01	...	...	...	...	·61	·90	·07	·15	·05	·26	...	...
Troops marching, Bombay.	45	...	...	...	...	15	...	...	...	...	...	...	1	...	...	...	...	2	10	31	3	...	...	7	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...
		...	...	...	...	·06	...	...	...	...	...	...	...	...	...	...	...	·06	·04	·15	·01	...	...	·03	...	...
Tochi Field Force	622	...	...	...	59	767	130	3	...	39	3	...	2	13	371	211	...	2	57	1,840	13	9	7	28	1	...
		...	...	...	30	6	11	...	...	2	...	...	...	1	65	10	...	...	...	131	...	...	...	...	...	...
Malakand Field Force.	1,130	...	1	...	41	1,085	301	67	1	63	6	...	10	20	114	47	1	8	121	2,345	36	8	47	30	...	...
		...	...	...	7	1	...	...	...	8	...	...	2	1	2	...	1	...	...	38	...	...	...	...	...	...
Kohat-Kurram Field Force.	275	...	...	...	4	382	6	3	...	...	5	...	...	7	56	22	...	1	63	666	25	4	14	20	...	...
		...	...	...	2	...	...	...	...	...	...	...	...	...	4	...	...	...	...	6	...	...	...	...	...	...
Mohmund Field Force.	136	...	...	...	3	208	1	65	...	6	...	...	1	1	12	8	...	1	8	402	1	4	1	2	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Tirah Field Force	1,701	...	...	...	57	2,242	113	46	3	3	9	3	15	108	355	321	1	21	202	4,405	68	32	45	67	...	...
		...	...	...	22	4	3	...	...	1	...	1	6	...	20	3	1	2	...	178	...	...	...	...	...	...
Deolali Depôt	866	...	3	1	15	350	3	36	3	3	83	28	5	18	47	23	6	13	520	1,497	96	87	190	147	...	...
		...	3	...	3	...	...	...	...	...	1	3	1	...	...	...	...	...	1	16	...	...	...	...	1	...
		...	·03	·13	2·74	8·22	·32	·87	·18	·06	3·77	2·33	·28	·66	1·80	·80	·21	·07	27·87	65·14	5·91	4·10	11·49	6·37	...	...
Poonamallee Depôt	170	...	...	...	1	6	1	...	...	...	8	2	1	1	29	1	3	13	111	359	11	...	83	17	...	...
		...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	3	...	...	...	...	...	...
		...	...	...	·94	1·49	·45	·05	...	...	·77	3·00	·14	·58	3·61	·01	·56	1·45	42·18	69·53	12·63	1·80	14·26	13·49	...	...

* Derived from the aggregates.

Commands.	Average annual strength.	1. Admissions. Influenza.	Cholera.	Smallpox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Tænia.	Other Entozoa.
n . . .	1,068	...	...	1	...	256	19	145	...	6	6	4	1	9	30	21	1	4	471	1,400	114	109	88	160	1	...
		...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	1	...	2	7	1	...	2	...	...	...
		...	...	...	·25	9·20	1·18	4·58	...	·37	·49	·65	·17	·65	1·24	·78	·01	·59	44·62	92·51	9·91	10·47	10·18	14·06	·15	...
ARMY . . .	68,395	5	...	6	247	488	61	48	8	1	69	102	31	102	128	25	20	79	2,812	5,849	909	371	724	808	3	...
† Remaining from 1895.		272	117	24	2,214	26,995	1,737	2,933	141	368	751	285	234	1,554	3,126	2,270	147	1,200	33,219	106,485	8,251	5,547	6,067	12,454	164	2
Admitted .	*	1	80	4	616	28	41	1	1	62	38	38	41	7	173	16	88	2	23	1,568	1	...	22	...	...	...
Died . .		...	1	...	...	...	...	...	...	17	9	...	...	...	...	...	...	...	...	167	...	...	...	...	...	...
Died out of Hospital.	68,395	9·83	2·49	2·70	296·85	824·20	91·88	125·71	17·93	25·05	71·86	52·52	17·52	26·21	166·89	62·17	18·11	86·05	2,991·59	6,541·90	781·79	448·22	751·74	1,009·84	4·15	·03
**Constantly sick.		13·19	7·83	41·06	51·85	13·48	25·28	16·69	47·77	21·40	36·03	67·98	31·19	22·30	27·50	13·66	45·59	26·91	33·32	24·66	35·19	29·75	40·04	29·95	9·25	5·48
**Average duration of a case in days.																										
BENGAL . . .	*	186	93	11	786	7,163	274	980	59	94	261	70	65	404	767	602	61	428	12,063	32,570	2,761	2,134	2,160	4,712	51	...
	20,113	...	66	1	209	6	2	...	1	24	15	7	9	2	33	...	42	...	6	469	...	...	6	...	...	...
		0·54	1·92	1·15	113·25	260·44	22·59	40·46	7·87	5·35	28·79	16·72	5·83	20·97	62·22	22·96	7·90	32·95	1,121·88	2,271·02	270·76	182·74	281·69	386·69	1·33	...
MADRAS . . .	*	17	4	4	724	7,606	438	428	41	102	154	63	84	387	552	537	24	194	6,948	25,100	1,850	1,090	1,212	2,786	55	...
	17,190	1	2	3	190	8	12	...	...	12	12	13	19	2	30	2	13	...	5	370	...	...	5	...	...	...
		·41	·13	·51	97·67	206·44	29·31	20·14	5·17	6·53	14·46	10·62	6·53	21·01	36·12	21·21	3·61	13·63	611·61	1,603·72	173·29	95·47	122·39	220·46	1·43	...
BOMBAY . . .	*	68	8	4	237	1,503	305	853	12	13	106	81	28	290	555	122	25	318	6,700	16,746	2,226	562	1,678	2,234	14	2
	12,369	...	4	...	61	2	6	...	...	7	6	9	2	...	14	...	14	...	7	262	1	...	6	...	...	...
		2·87	·26	·48	34·95	71·50	18·04	39·10	2·06	1·06	14·37	16·11	2·95	20·70	43·07	2·84	2·80	23·85	642·32	1,293·07	215·28	40·01	294·80	193·93	·52	·03
MADRAS . . .	*	1	11	5	303	6,038	169	488	25	48	207	68	28	330	341	430	35	227	7,053	23,408	1,261	1,714	1,503	2,575	42	...
	14,859	...	8	...	96	1	7	1	...	8	7	8	3	1	5	1	17	...	5	213	...	...	5	...	...	...
		·01	·18	·36	50·98	195·82	21·94	26·01	2·83	2·13	14·24	9·07	2·22	17·53	24·88	15·16	3·80	15·62	615·78	1,371·09	122·46	130·00	153·56	309·76	·87	...

Groups and Commands.	1. Strength. 2. Constantly sick. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Group I.—Burma Coast and Bay Islands.	1,278	1,269	1,231	1,203	1,202	1,198	1,198	1,194	1,192	1,219	1,180	1,057	14,421
	164·36	151·75	145·22	123·77	125·87	123·97	149·42	160·65	162·13	152·06	121·00	110·61	1,690·81
,, II.—Burma Inland .	2,712	2,635	2,761	2,692	2,700	2,775	2,775	2,740	2,753	2,600	2,420	2,577	32,140
	322·55	265·74	266·74	260·86	261·48	269·80	321·28	308·42	320·67	278·78	256·20	267·87	3,400·39
,, IV.—Bengal and Orissa	2,410	2,168	2,383	2,353	2,324	2,348	2,393	2,423	2,508	2,338	1,828	1,752	27,228
	185·04	198·53	239·80	215·47	214·03	214·73	225·51	241·09	247·60	226·42	195·60	193·45	2,597·27
,, V.—Gangetic Plain and Chutia Nagpur.	8,046	7,532	7,775	7,342	6,938	6,811	6,913	6,506	7,276	5,810	5,842	5,203	81,994
	848·41	800·97	785·96	733·40	700·93	676·14	748·74	682·86	741·66	734·15	682·13	710·96	8,846·31
,, VI.—Upper Sub-Himalayan.	19,222	19,596	17,891	13,303	10,765	10,600	10,442	10,044	11,305	10,923	13,404	14,604	162,099
	1,854·23	1,959·42	1,659·10	1,222·33	1,005·38	934·44	904·84	892·74	1,083·16	1,192·97	1,595·63	1,876·23	16,180·47
,, VII.—N.-W. Frontier, Indus Valley, and North-Western Rajputana.	5,758	5,684	5,705	5,362	4,450	4,012	3,548	4,357	4,599	5,482	5,453	5,381	59,791
	561·52	482·42	477·23	389·56	361·28	299·13	315·17	354·52	466·23	693·98	922·17	882·83	6,206·04
,, VIII.—South-Eastern Rajputana, Central India, and Gujarat.	6,079	6,254	6,805	6,708	6,572	6,495	6,578	6,513	6,105	5,473	5,199	5,019	73,800
	763·53	741·05	773·57	789·80	782·77	707·00	759·31	894·78	983·49	850·43	754·61	625·83	9,426·17
,, IX.—Deccan . . .	10,720	10,801	10,435	10,034	9,467	8,762	8,754	8,042	7,278	7,204	7,29[illegible]	7,585	106,375
	1,014·77	1,016·00	956·86	939·66	887·73	867·61	872·02	902·35	881·17	844·32	780·64	727·58	10,690·71

* Derived from the aggregates.
† Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases.
** Excluding Field Forces.

TABLE IV—*concluded.*

Groups and Commands.	1. Strength. 2. Constantly sick.											Total.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Group X.—Western Coast	1,521	1,716	1,521	1,433	1,439	1,487	1,481	1,473	1,458	1,489	1,253	1,376	17,6
	115·87	131·11	123·26	92·80	85·87	100·93	107·55	122·29	123·80	123·29	112·99	117·55	1,357·
,, XI.—Southern India	3,515	3,587	3,569	3,361	3,294	3,314	3,369	3,041	2,754	2,794	2,778	2,745	38,1
	335·55	339·10	314·07	292·13	292·84	281·23	318·54	320·04	282·66	268·62	301·26	233·68	3,579·
,, XIIa.—Hill Stations	2,948	2,828	4,924	9,816	13,070	13,614	12,564	9,226	5,586	4,386	3,071	2,666	84,6
	264·44	237·04	365·00	783·54	1,062·00	1,200·03	1,264·45	1,161·66	820·64	590·98	342·65	244·15	8,335·
,, XIIb.—Hill Convalescent Depôts, and Sanitaria.	1,494	1,491	2,358	4,830	5,946	6,002	5,654	4,347	2,667	1,489	890	706	37,87
	106·68	120·11	221·96	456·67	491·20	443·41	425·01	381·88	304·64	177·73	127·20	90·09	3,346·
INDIA	69,837	69,746	70,746	70,993	70,037	69,306	68,998	66,481	66,296	65,517	66,219	66,558	820,73
	6,840·01	6,795·68	6,633·81	6,559·76	6,476·03	6,317·75	6,640·08	6,861·86	7,344·29	7,501·83	7,808·50	7,420·46	83,200·0
Bengal	21,616	21,520	22,054	22,718	22,507	22,388	22,282	21,040	18,564	15,835	15,387	15,437	241,35
	2,313·36	2,347·71	2,313·16	2,368·10	2,377·39	2,291·81	2,392·25	2,425·59	2,424·38	2,168·69	1,926·69	1,903·25	27,252·3
Punjab	17,787	17,992	18,976	19,304	19,367	19,308	17,885	14,708	14,610	14,750	15,691	15,901	206,27
	1,512·38	1,531·62	1,574·75	1,507·64	1,567·89	1,543·00	1,515·15	1,354·17	1,415·44	1,624·14	2,006·33	2,116·01	19,268·5
Madras	13,421	13,416	13,559	13,612	13,386	13,138	13,130	12,252	11,435	10,654	10,071	10,356	148,43
	1,469·95	1,441·84	1,375·84	1,330·02	1,280·78	1,261·66	1,351·32	1,332·15	1,290·86	1,160·74	1,164·01	1,057·70	15,516·8
Bombay	17,019	16,809	16,157	15,359	14,777	14,472	14,412	14,171	13,536	13,897	13,690	14,008	178,30
	1,544·32	1,474·51	1,370·06	1,354·00	1,249·97	1,221·28	1,340·84	1,496·99	1,464·89	1,412·51	1,304·36	1,231·34	16,465·0

TABLE V.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATIONS.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
arrackpore	Bengal	Epidemics of enteric fever, dysentery, and ague have occurred during the period. The Barrackpore pipe-water during the rains contains many impurities, doubtless organic and inorganic. Notwithstanding that the water was boiled and otherwise treated, a very severe epidemic of dysentery occurred. The senior medical officer reports that it was a type of dysentery quite unusual and very malignant. He attributes the occurrence of ague to imperfect sub-soil drainage, and explains the unusual prevalence as due to heavier and later rains than in 1896. The rapid removal of surface water is urgently demanded, so that, in so far as is possible, soakage may be prevented. The means proposed by the Executive Engineer to deal with the matter are embodied in a special drainage scheme already submitted. The committee are of opinion that the matter is one of urgency and should take precedence of all other sanitary affairs in cantonments. The villages of Manirampur, Nawabgunj, and Titagarh, on the borders of the cantonment, are in a bad sanitary condition. The town of Serampore on the opposite bank of the Hooghly is also in a desperate state of filth. The drainage is bad. Rain water is not sufficiently quickly removed. These defects form the subject of a special report forwarded by the Executive Engineer who reports as follows :— The drainage of the whole cantonment is generally defective. There are no marshes, but there are many tanks which tend to raise the sub-soil water level. The water-supply has been suspected as the cause of the enteric fever and dysentery. Measures directed to the purification of the water have signally failed to exert any influence on the epidemics of enteric fever and dysentery. The committee are anxious that it should not be understood that they wish to convey an impression that the various means of purification (permanganate and boiling, but specially the latter) are useless; but they wish to record the opinion that at least the mode of carrying them out is, at present, very faulty. The risk of contamination involved by the complicated processes of collecting, boiling, cooling, distributing, and storing, is great; and it is now suggested, that a central boiler, of sufficiently large dimensions to boil water twice a day for the troops, and placed under the entire control of a non-commissioned officer specially appointed for the purpose, be at once constructed. There is no overcrowding in the barracks. The troops have ample space. The hospital, however, is a very old thatched building, and is probably the worst in India. Its state is materially such as to retard recovery of patients, and even probably to induce disease. The sewage of cantonments is disposed of by burying it in trenches, dug daily by *beldars* for this purpose. This system, which answers well in districts where the soil is dry and the water lies at some depth from the surface of the ground, is, no doubt, a very defective method when applied to this cantonment, as the soil is never quite dry, owing to the water lying close to the surface. Probably the only way of dealing with the disposal of the sewage is by incineration, and the committee are of opinion that the installation of a Henry-Campion incinerator would very materially improve the sanitary condition of this cantonment. The chief defects brought to notice are defective drainage, a turbid water supply, and a primitive conservancy. To remedy all defects the following works appear necessary in addition to those mentioned elsewhere in the Cantonment Sanitary Report :— Installation of a Pasteur filter; cutting off drainage from all tanks in private compounds; construction of a Henry-Campion incinerator; the erection of several Larymore boilers.
inapore	,, ...	Venereal disease prevailed throughout the year, and ague since the rains. There was no unusual sickness during the year. All lands in which deposits from latrines were buried, have been brought under cultivation. The drainage in the cantonment is fairly satisfactory. The water-supply is abundant and of good quality, except that drawn from the wells in the permanent barracks. This latter has not been used for cooking or drinking purposes. The drinking water for British troops has been boiled with beneficial results.
enares	,, ...	Malarial fevers and dysentery were due to climate. Enteric fever still remains a mystery, but was probably due to contaminated dust, or to flies acting as carriers of the infection. It has a well marked seasonal character, when the above named factors are most in evidence. No unusual sickness occurred among the troops, European or native, during the year. There was a decrease of enteric fever among the European troops compared with 1896. That is accounted for by the garrison being smaller than in the previous year. Drainage is good. There are no jheels or marshes. The water used is that supplied by the municipal waterworks, and is free from all danger of contamination.

TABLE V—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
Allahabad	Bengal	Venereal disease and ague were somewhat more prevalent than i 1896. The Infantry suffered slightly more than the Royal Artillery The grass grown all over the unoccupied lands in the cantonmen is, in the opinion of the medical officer in charge of the statio hospital, liable to increase the amount of ague in seasons when th rains are prolonged. Also the grass appears to be connected wit the enormous number of flies in the cantonment. The Distric Principal Medical Officer states that he cannot quite agree wit the medical officer in charge of the station hospital, that any in crease in malaria is due to the growing of grass in cantonments, a irrigation is not employed.
Sitapur	„	A severe outbreak of cholera occurred in the month of September The 1st Battalion, King's Shropshire Light Infantry, arrived early i March from Calcutta, where they contracted venereal disease in it worst form, and consequently a large proportion of admissions fo secondary syphilis was the result of disease contracted before arriva at this station. For example, there were 74 admissions for secon dary syphilis in this regiment; out of which number 32 only con tracted the disease here. A large number of women were constantl prowling about the borders of the cantonment, owing to the sever famine probably necessitating their earning a livelihood by prosti tution, which was not their occupation in ordinary years. Choler was very prevalent in the surrounding villages. When such fre communication exists (in spite of the strictest precautions to prever it) between the natives employed in the regimental lines and th inhabitants of the infected villages, the contamination of food an water may be easily accounted for. The drainage within the can tonment is satisfactory, and there was nothing of an insanitar nature connected therewith during the past year. The water-suppl is ample and of good quality. The water is distributed to th various barracks and cook houses, etc., by means of *bhistee* who convey it in galvanized iron buckets, and thus is liable to con tamination. There are no other likely sources of contamination.
Meerut	„	The year was exceptionally healthy up to the end of July, thereafte exceptionally unhealthy owing to an unusual amount of fever. Th causes to which this prevalence seemed to be due were abnormal dr weather in the previous year followed by unusually heavy rainfal in the present year. Ague in the 5th Dragoon Guards was ver severe. This regiment has been longest in the station, and th prevalence of ague may be due to that, and also to their being engaged in training their horses to service during the autumn months. The 20th Madras Infantry suffered very much from agu a month after arrival here, probably due to the men not being suffi ciently warmly clothed for the climate here. The public and road side storm-water drains are well looked after. Owing to the natur of the ground the fall is very slight. The officer commanding th 5th Dragoon Guards thinks that the surface drainage of severa compounds is inefficient. The water-supply is good and abundant and there is no source from which it is likely to be contaminated The bazars have been pronounced to be dangerously over-populat ed, especially the *sadar* bazar, the population of which is at th rate of about 60 to 70 thousand per square mile. A sub-committee has been appointed to inspect the worst portions, with a view to buying up inexpensive buildings. Also instructions have been record ed forbidding sanction to build or enlarge existing buildings. The District Principal Medical Officer states that the chief causes o sickness among the troops during the past year seem to have been malarial fevers, enteric fever, and venereal diseases. There is nothing in the conformation of the surrounding country or canton ment itself to account for such a marked prevalence of malarial fevers and the sanitary condition of the barracks and their surroundings is distinctly good. He can only account for the prevalence of malaria fevers by ascribing it to a year of rather unusual rainfall succeeding one of drought and famine, and this prevalence may not recur again to such an extent for some years. The prevalence of ague in parti cular corps may be due, as stated above, to local causes obtaining in those particular corps. Enteric fever may, in some measure, be diminished in future by the use of Larymore boilers: time will show; though they will not be able to reach many sources in the bazaars from which polluted water is obtained.
Muttra	„	Enteric fever was traced to water in some of the wells. The first out break of cholera was introduced by a native who was taken ill near one of the wells and contaminated the water. The origin of scarlet fever was not satisfactorily traced; but it might have been brought from Kailana by drafts returning, as it had been prevalent there. Malarial fevers were more prevalent on

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
Muttra—*contd.*	Bengal	account of the heavy rains following a previous dry season. The surface drainage is good, and there is a steady fall towards the river. There is a *jheel* near the public gardens. The water-supply is generally good, although one or two of the wells became contaminated with cholera and enteric microbes. The source of the latter could not be ascertained. All water for drinking purposes is boiled before use. The water contains a moderate amount of chlorides, and is free from organic matter.
Agra	"	Enteric fever was almost certainly due to contamination of the municipal water-supply, ague to the large rainfall. With the exception of the severity of the outbreak of enteric fever, there was no unusual sickness, and all corps suffered from this. The drainage within cantonments is good. There are no *jheels* in the vicinity. The water-supply was certainly contaminated with the enteric bacillus since wells Nos. 1—12 have been used for drinking and cooking purposes in the British infantry lines. The water from stand posts is found to collect in the pucca drains, requiring constant attention. To obviate this, small gardens are being made into which to run the waste water, and this answers successfully. The District Principal Medical Officer states that the municipal water is at present disused pending some reliable scheme for its purification at the source of in-take. The importation of milk from the neighbouring villages should be at all times put a stop to, if practicable, as he believes it to be a fertile source of danger to Europeans in cantonments. All rank vegetation in cantonments should be cut down and removed during and after the rains. During the autumn of 1897 rank vegetation was abundant all through cantonments, and must have been responsible for much of the malarial fevers that were so prevalent in the latter part of the year.
Jhansi	"	Cholera has been prevalent in the surrounding districts for some months, and was no doubt imported. Enteric fever, the medical officer considers, is due to endemic causes aggravated by a very low rainfall. The decrease in venereal disease among the European troops is due to the debilitated health of the men, a system of severe punishment for concealing disease, and more strict medical supervision. It is as bad as ever among the native population. The prevalence of enteric fever this year is, to some extent, accounted for by the recent arrival of young soldiers from England, and perhaps by general climatic conditions. The 80th Field Battery, Royal Artillery, suffered most, the 9th Western Division, Royal Artillery, least. Both these corps occupy the same barracks and drink out of the same well, but in the latter the men were older and longer in India. The 1st East Surrey suffered in about the same proportion as the royal artillery as a whole. The *sadar* bazaar is unprovided with ample surface drainage. The water-supply is sufficient in quantity and of good quality. The latrines have suffered further damage in the periodical removals, owing to the absence of European supervision. An effort will be made, if funds permit, to renew the native troops' latrines in whole or part. The system of conservancy is satisfactory, but it would be improved if the scheme submitted with the last budget could be carried out. Constant defects in cleanliness have been noticed by the cantonment magistrate on his rounds, owing to the absence of European supervision on the day previous, notably in the disposal of water (cook-houses) and rubbish. One supervisor has now been made available. The District Principal Medical Officer believes that the cases of enteric fever among the men of the East Surrey Regiment and Field Battery may be due to the milk supply, as the youth of the men of these particular corps can hardly account for the outbreak that occurred in the later months of the year. Every care should be taken that no milk is brought in direct from villages, even to supplement shortcomings of supply in the regimental dairy. Filth trenches and sites for storing dry rubbish should be as far away as possible from cantonments. For years rubbish seems to have been deposited much too near the cantonments, and is the chief cause of the swarms of flies that now infest the station hospital and other localities. New sites have been selected, and the refuse will be burnt daily in future. The General Officer Commanding the district states that every precaution is taken to guard against the supply of bad milk. The heavy Field Battery have started a small private dairy of their own. Others intend to follow the example set. Flies are certainly the curse of Jhansi. They swarm in the kitchens and in the barracks, but keep clear of the latrines. They are a source of constant irritation to every one. The recommendation of the Principal Medical Officer to have the rubbish burnt daily is very sound. The General Officer Commanding the district also suggests the erection of a "Silchar" furnace or cinerator.

TABLE V—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATIONS.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Nowgong, C. I.	Bengal	There is a decrease in 1897 of venereal disease, but there would have been a high increase, only for ague which so debilitated the men that they were not able to resort to prostitutes. The famine stricken people had caused a large increase of venereal disease both on account of their resorting to the roads close to the barracks and on account of their extreme cheapness. There are no defects in drainage. The supply of water is sufficient in quantity, and as good in quality as well-water can be. The water may be contaminated by *lotahs* during cholera. Syces and low caste people have been seen drawing water with their *lotahs*, which are also frequently cleaned with contaminated earth. Washing clothes is also carried out round some of the wells. The bullock run may also, and no doubt does, contaminate the water. In the rains this place gets full of water which soaks into the wells. These remarks apply principally to the bazar post office well and the well near the school house. There are no defects in the latrines and urinaries; but the mode of disposing of the sewage will, sooner or later, require reform, as the ground will become so saturated with sewage, that the soil will not be able to purify itself, nor will vegetable life be able to do it either. Burning or sewage works will have to be established. Moreover, as the cantonment grows, houses will have to be built on this land. Malarial fevers have been prevalent to an extraordinary extent during the past autumn, and were probably due to natural, and, in a great measure, unavoidable, causes, such as soil, rainfall, etc.
Saugor	„	There was no unusual sickness during the year, and the admission rate for malarial fevers among European and native troops was less in 1897 than in 1896. There was no cholera. The construction of such drains of the *sadar* bazar as require improvements, will be undertaken forthwith, to the extent of the funds at present available. The *Ramjiria* tank which became filled during the rains, dried up at the end of October, and would be greatly improved by being deepened and kept as a reservoir, or else by being filled up. Deepening a well in the *sadar* bazar was attempted, but operations had to be discontinued in the rains. The benefit derived by the deepening will be noted next year. From February last great distress prevailed, owing to want of water in the bazar, till the monsoon arrived.
Jubbulpore	„	There are no defects in drainage. The water-supply from the Jubbulpore water-works is sufficient and of good quality. There are two villages within cantonment limits (relics of the days when Madras troops were quartered here) which, in spite of a full conservancy establishment and plant, are not sanitary, and which, it is very desirable, should be demolished. A beginning was made in 1896, but had to be stopped last year owing to want of funds. Owing to all available funds having to be set apart for the provision of quarters for the cantonment police, it will be impossible to set aside any money during the coming financial year for the demolition of insanitary villages in cantonments.
Naini Tal	„	With the exception of venereal no special disease has been prevalent among the troops. There has been no unusual sickness as compared with other years. The drainage of the cantonment is quite satisfactory. As formerly the water-supply is derived from the lake. It is passed through filter beds and all boiled before use. This source is always liable to contamination, and the municipal supply should be extended to the European barracks. The Gurkhas now use the municipal supply.
	Punjab	Enteric fever prevailed in an epidemic form in the 1st North Staffordshire Regiment in November and December, this regiment having arrived from Egypt on the 1st November 1897. There were 49 admissions and seven deaths from the disease in that regiment. The disease in the first instance was due to exposure on military service in an unhealthy climate; in the second to the drinking of contaminated water by men recently arrived in the country. The prevalence of the disease was due to drinking contaminated water from a condemned well. Malarial fevers were the cause of unusual sickness in the 3rd Battalion Rifle Brigade, on return from the Tochi Valley Field Force. Venereal diseases, specially secondary syphilis, diminished in amount since the beginning of the year. Whether this is due to any other cause, except change of regiments, remains to be seen. Generally speaking the health of the troops during the year was up to the average. Funds have not sufficed for the excavation of subsidiary drains to the original levels, requisite for good drainage, as made some years ago. The work will be completed in the next financial year. Some parts of the *sadar* bazar are without a proper drainage system. An estimate and allotment of funds are

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
mballa—*contd.*	Punjab	necessary. Water is distributed by hand—*pakhal* or *bhistee*, and the masonry ducts are open to aerial contamination, or to contamination from coolies repairing them. The quantity of water has varied from 210,000 to 108,000 gallons a day, compared with 400,000 gallons required. The causes are a succession of years of slight rainfall, and general deficiency of the supply at its best. The well complained of has since been boarded over and padlocked, and is only used for grass farm purposes. An improved water-supply is required for cantonments, the water being taken only from the best source available, run into cantonments in pipes under pressure, and distributed to all barracks and bazars. A scheme for improving and increasing the water-supply is under consideration.
mritsar	„	The prevailing diseases amongst the British troops have been enteric fever, venereal diseases, and malarial fevers. There has been no prevailing disease amongst others. There was an unusual amount of enteric fever amongst the British troops as compared with former years, all the cases occurring among the Detachment, 1st Royal Scots Fusiliers. Every possible precaution appears to be now taken with regard to the water-supply for British troops. The well for drinking and cooking purposes is covered in and perfectly protected from pollution. From it the water is raised by a pump, and forced along a few feet of iron piping into a large brick reservoir, from which it is drawn by means of a brass tap into galvanised iron buckets, and so conveyed to the barrack rooms and kitchens. It is boiled, cooled, and treated with potassium permanganate, and then stored in the galvanised iron vessels which formerly held the Macnamara filters. When the outbreak of enteric fever took place, the wells were found by the Chemical Examiner and Bacteriologist, North Western Provinces, to contain microbes identical with those of enteric fever. They were then thoroughly cleaned out, and freely treated with potassium permanganate; since when there have been no fresh cases of enteric fever. Malarial fevers have been prevalent in the district generally, and due to unavoidable causes.
ort Lahore	„	Malarial fevers were very prevalent all over the Punjab during the latter months of the year, and the cause would appear to depend on some general predisposing and exciting conditions which appear to have prevailed all over the province. The health of the troops does not compare favourably with the same in 1896. Ague shows the largest number of admissions. The Bedfordshire Regiment was the most unhealthy. The drainage of the fort itself is excellent, but the land to the north and west is low-lying and marshy from proximity to the river Ravee, though it is well wooded and most extensively cultivated. The water-supply for drinking purposes is obtained from the municipal water works, and is not deficient in quantity or inferior in quality. It is also boiled and pinked with permanganate of potassium. The water for ablution and gardening purposes is obtained from wells within the fort.
ampbellpur	„	The prevalence of ague, as compared with former years, was chiefly due to the arrival of detachments from active service. The natives did not suffer so much from ague as the Europeans. The greater prevalence of enteric fever this year is difficult to be accounted for. There are no defects in drainage, nor are there jheels or marshes in the vicinity of the cantonment. The water-supply is sufficient in quantity and good in quality. The water is drawn from wells, and distributed in zinc buckets for drinking purposes. The village of Campbellpur, which is within less than 100 yards of the officers' mess, is a distinct danger, as the cantonment authorities have got no sanitary control over that place and the houses and huts beyond the bazar at the far side of the *nullah* running behind it.
eshawar	„	The prevalence of ague and malarial fevers was due to exposure and climatic influences. There was no unusual sickness prevalent during the year amongst the British or native troops. There are no jheels or marshes in the cantonment. Drainage, on the whole, is good. The race course lies low and is very marshy. There is no defect in the water-supply, which comes into the station direct from the Bara river in pipes, through filtering beds. The rations have lately not been so good as usual, owing to greater demand; prices having been raised owing to the prevalence of famine and frontier disturbances. Owing to the concentration of troops and large bodies of transport animals, the sanitation during the past six months has been a great difficulty.

TABLE V—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

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Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
Solon	Punjab	In fifty per cent. of the cases admitted into hospital the diseases were contracted prior to arrival at this station. The number of admissions for enteric fever compares unfavourably with last year. Most of them were contracted prior to arrival in this station. The remainder were probably contracted outside cantonments. Drainage is excellent. There are no marshes, jheels, etc., in the vicinity of the cantonment. The water-supply is ample in quantity and good in quality, not liable to contamination up to the period of delivery from stand pipes.
Lower Topa	"	No Sanitary Report.
Cherat	"	The outbreak of enteric fever might be assigned chiefly to two causes:— (1) The milk supply. (2) Saturation of the soil. (1) The regimental dairy, in the first instance, was situated in the bazar close to one of the storage tanks, the water of which is only used for building purposes. The water of this tank was chemically examined and found to contain the bacillus of enteric fever, and there can be little doubt that the milk was adulterated, from time to time, with this water. (2) A large percentage of the cases came from a barrack room close to, and tents pitched on, the site of the base hospital during the Chitral expedition. A very foul smell could be detected on this ground after sunset in the evening. The outbreak stopped after the evacuation of this barrack room and tents, and the removal of the dairy to a site near the ration stand, where it was kept under better supervision. The large number of cases of malarial fevers and diarrhœa, etc., occurred amongst the men of the Somerset wing, and were due to bad food and water, and to exposure, during the Mohmund expedition. Dysentery and diarrhœa account also for an increase in the number of admissions. Both these diseases occurred principally amongst the Somersets, and were due to the causes referred to above. The nature of the land and the want of water rendered cultivation of the soil used for trenching purposes impracticable either at Cherat or Chuppri. The men's latrines were kept clean, and dry earth was mixed with the excreta before their removal. During the early part of the year the excreta were burned in the incinerator, but this apparatus was found not to work properly, and the filth accumulated outside it in large quantities, and had finally to be removed to the trenches. The urinals are merely pans placed in kutcha enclosures outside the barrack rooms, consequently the ground becomes saturated, and during rains is washed on to the roads. New urinals should be built. There are scarcely any surface drains either for the barrack buildings or for the ground camped on. Consequently the ground becomes saturated with foul ablution water and urine from stables, etc. There are five tanks for holding foul water, which is only used for building purposes. These tanks receive part of the surface water. There are no marshes. The water-supply for the Europeans comes from Chuppri spring, and is stored there in a large reservoir. The supply at the source is good and abundant, but, owing to the distance from Cherat, and the difficulty in getting sufficient transport, the supply in the station itself was often scanty. During heavy rains surface water might be washed into the reservoir, but the quality of the water has invariably been found to be good. The method of drawing it in *pakhals* is to be condemned, as it is impossible to keep them properly clean. The water for the bazar was drawn from the spring beneath the Sappers' Hill. A scheme for pumping up the water from the present reservoirs at Chuppri is being prepared. A scheme for the removal of the filth by wire tramways is also under consideration.
Kasauli	"	There was no unusual sickness. Drainage is good. There are no jheels or marshes in the vicinity of the cantonment. The water-supply is sufficient in quantity and good in quality. The mode of distribution (by *pakhals*) could not be worse. Metal vessels should be used for carrying water, instead of leather bags.
Murree	"	There was no unusual sickness. The surface drainage is satisfactory. A new surface drain is required, and has been requisitioned for, to carry off waste water from the hospital cook-house, Assistant Surgeons' cook-house, and Army Hospital Corps' quarters. There are no jheels, marshes, etc., in or in the vicinity of the cantonment. The water-supply is abundant and satisfactory. In summer the distribution is by pipes, and contamination is practically impossible. In winter *pakhals* are used, and contamination is guarded against by having the *pakhals* regularly and periodically disinfected. Contamination at the source is hardly possible.

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
ecunderabad	Madras	The prevalence of ague is due to climate; but no apparent cause can be given for the prevalence of enteric fever, as the milk-supply is good, as the water was boiled and permanganate of potash used with it both for drinking and cooking purposes, and as all food supplies have been carefully examined before issue. Enteric fever is endemic in this station. There was no unusual sickness amongst the British troops as compared with other years. The drainage of the cantonment is to a great extent "natural." Wet cultivation is carried on in certain localities; but this year only to a very limited extent owing to partial failure of the monsoon. The British troops are supplied with water pumped from wells and then distributed in pipes. The quality of the water is good, but the quantity is not sufficient during the hot weather. The native troops are supplied with water from wells. The quantity is sufficient and the quality good. The District Principal Medical Officer states that the water for drinking goes through too much handling between the time when it is drawn from the pipes and the time when it is placed in the receptacles from which it is ultimately used, and is hence liable to contamination from many sources. Provision is now complete to supply the troops with water supplied through pipes from a tank about 4 miles distant. A continuous and ample supply is expected. Vegetables at certain seasons of the year are procurable with difficulty.
Bangalore	"	The causes of enteric fever amongst the British troops could not be traced. There has been no unusual sickness amongst the British troops, with the exception of venereal diseases. There are no defects in the drainage, nor are there jheels or marshes in the station. The water-supply for the British troops, as taken from the slaughter house well, is of good wholesome quality and sufficient in quantity. The well, during the year, has been protected and fitted with a pump. The defect in the hydrant water was due to too frequent removal of the filtering medium. Filtering beds should be allowed to consolidate to a certain extent before they can thoroughly effect their purpose. The General Officer Commanding the District states that he is unable to agree with the Principal Medical Officer as to the cause of the slight turbidity of the water drawn from the Mysore State water-supply, and obtained from the hydrants which supply the native troops lines and British infantry (parade) barracks. This turbidity, in the opinion of the Public Works Department officers of the Mysore State in charge of the Hasarghatta water-works, is due to the fact that late last year unusually heavy rain fell in a short period which brought such a large quantity of water into the Hasarghatta lake with a rush as to disturb it very seriously to a great depth, with the result that ever since the water in the lake has been turbid. As time passes the turbidity is decreasing and now has almost disappeared. It may be mentioned that the mud in suspension in the water is so very fine that no filtering medium has been found capable of removing it. Before long the Government water-supply from the Hasarghatta lake will be introduced into the station, and it may be expected that by that time all the turbidity of the water in the lake will have disappeared.
St. Thomas' Mount . . .	"	There was no unusual sickness amongst the troops as compared with other years. The drainage within the cantonment is merely surface drainage to carry off rain water. This is fairly sufficient. The water-supply is from wells, which are usually deep, and the supply is, in the hot weather, deficient in quantity. The water from several wells has been pronounced by the Chemical Examiner to be poor in quality. The objectionable salts come from the deeper layers of the soil below 40 feet, and the contamination is not from human sources, and therefore not very objectionable.
Poonamallee	"	There was no unusual sickness. The drainage within the cantonment is good and efficient. Paddy cultivation takes place within the boundaries, but it does not appear to be prejudicial to health. The water-supply is plentiful and of good quality, but hard. For the troops the water is obtained from wells protected by wooden covers. It is drawn by hand, boiled before use, and stored in iron cisterns. Permanganate of potash is only used for washing the cisterns. As the water is raised by hand, a rope and *chattie* being used, it is always liable to accidental contamination. The wells for the native troops are open and the water is drawn by hand. The medical officer suggests that the drinking water wells for the troops should be covered in, and the water raised by means of a pump. As the water stands high in the wells here all the year, a hand pump could be employed to raise it.
Deesa	Bombay	Fevers were in excess amongst the British troops. Enteric fever was much more prevalent. The cause of the increase cannot be accounted for. There is no defect in the drainage. The water-supply is neither deficient in quantity nor inferior in quality. A pump has already been erected in the British infantry lines, and

TABLE V --*concluded.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table III.

STATIONS.	COMMAND.	Sanitary defects, improvements, suggestions, etc.
Deesa—*contd.*	Bombay	also one lately in the Royal Artillery lines, for drinking wate The distribution is made by water carts instead of *mussacks*. Est mates for latrines on the improved system have been receive and are being considered with the general question of improvin the sanitation of the cantonments.
Ahmedabad	"	There was no unusual sickness. Ahmedabad has always been a unhealthy station. The *Lalli* tank is a source of malarial emana tions, but its drainage has now been sanctioned. The wate supply is excellent. The municipal water is laid on in the Britis and native military lines. The wells in the native lines ar periodically treated with permanganate of potash.
Nasirabad	"	No apparent cause can be assigned for the prevalence of enteri fever and ague. Enteric fever seems to have a seasonal activity April and September being the two months giving the most admis sions in the case of British troops. There was no unusual sickness as compared with previous years, amongst either the European o the native troops. There is no defect in the drainage. The water supply is good in quality, and not deficient in quantity. The drink ing water for the British troops is supplied from the *Dilwara* well but as the well is used by the villagers also, and all the water is drawn by hand, it may become contaminated. The water from the *Danta* well is used for bathing and washing up purposes by the British troops, and as drinking water by the native troops and the inhabitants of the bazar. The supply is sufficient, but requires to be used carefully in the hot season. It has been suggested to cover in the *Dilwara* well and to provide a hand pump for drawing the water. The civil authorities will be consulted on these points, as the villagers have certain rights over the well. The method by which this water is obtained has been in force for some time, and there appears to have been no deterioration in the quality, but the suggestion will receive consideration. In the meanwhile the well is under police supervision, and every endeavour is made to pre vent pollution.
Mhow	"	The rate of admission for malarial disease amongst the 1st Royal Fusiliers was more than that of any other corps, those non-commissioned officers and men being the chief sufferers who had served at Kurrachee in 1895. An exhaustive enquiry was made in order to ascertain the cause of an enteric outbreak. The results were not very definite. Several surface drains are urgently required in each sanitary district. No jheels or marshes exist in the vicinity of the cantonment. The water-supply is abundant. The bacteriological analysis showed that the water contained a specific microbe resembling Eberth's enteric bacillus, but it did not answer to all the tests. This analysis has been indefinite. The reservoir in the cantonment requires protection from pollution, and should be covered over to prevent the advent of fæcal dust. As this will be an expensive process, the question arises, is this tank absolutely necessary? General filtration of the *Baircha* tank water is necessary, the loss of head being overcome by means of hydraulic pumps. The covering in of the water tank at the European infantry quarters is needed; or, if possible, cease to use it; as at present it is a fæcal dust trap. "The catchment area," says the District Principal Medical Officer, "is extensive, and during the dry season becomes covered with very fine dust, which must be more or less fæcal, as there is a place of pilgrimage not far from this cantonment. The *bacillus coli communies*, the fæcal microbe, is more or less present throughout the rains, indicating that fæcal matter is present in the water. Professor Hankin has frequently demonstrated to his own satisfaction the presence of the bacillus of Eberth in this water. At the same time it must be borne in mind that Professor Klein states that this bacillus is most difficult to isolate in water. Be this as it may, during the enteric months, April to the end of June, July, and August, this water is pregnant with the fæcal bacillus. The minute particles of clay which are present in this water during the rains render necessary the formation of sedimentation tanks as well as filter beds. The filtration of the entire water-supply will entail a great outlay, and it cannot be too strongly urged that the most modern system of filtration should be used. I am not aware that any filter beds in India are up to date, and on the same lines as the most modern filters in America, Germany and England. No proper means are provided for the boiling of drinking water for the European troops, and, pending the introduction of the Larymore boilers, I strongly urge the use of *samovar* boilers fitted with the Larymore or other whistles. These boilers are very portable, cheap, use little fuel, and can accompany the troops into camp."
Mount Abu	"	No Sanitary Report.

TABLE VI.

INFLUENZA by months, stations, groups, and commands.

TABLE VII.

CHOLERA by months, stations, groups, and commands.

Stations.*	Admissions from Influenza in each month.													Admissions from Cholera in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
angoon	12	10	29	2	1	1	...	7	...	...	...	...	62	...	...	...	...	...	...	...	...	...	...	...	...	...
roup I.—Burma Coast and Bay Islands	12	10	29	2	1	1	..	7	...	...	...	...	62	...	...	...	...	...	...	...	...	...	...	...	...	..
ort Dufferin	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
roup II.—Burma Inland	..	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
ort William	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2
roup IV.—Bengal and Orissa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2
B																										
ingapore	...	...	...	5	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
llahabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
ert Allahabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	3
yzabad	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	...	...	...	...	...	...	1
itapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65	...	...	...	...	65
ucknow	...	...	...	...	...	...	...	...	...	54	87	6	147	...	...	...	...	...	...	...	...	...	1	...	...	1
awnpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
roup V.—Gangetic Plain and Chutia Nagpur	...	...	...	5	...	...	...	...	...	54	87	6	152	...	...	...	...	...	2	1	3	65	1	...	...	72
A																										
elhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
mballa	...	...	2	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	2	...	...	...	...	2
B																										
eean Meer	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
roup VI.—Upper Sub-Himalayan	...	...	2	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	4	...	...	...	...	4
C																										
yderabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
roup VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
B																										
asirabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	4
uttra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	2	...	9
gra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
hansi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	4
how	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
roup VIII.—South-Eastern Rajputana, Central India, and Gujarat	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	7	1	8	...	...	2	...	18
A																										
amptee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
B																										
ecunderabad	...	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...	...	...	1	1	2	...	...	...	...	4
elgam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	3
oona	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
irkee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
roup IX.—Deccan	...	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...	2	1	2	3	2	...	...	...	...	10

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table III.

TABLE VI—*concluded.*

INFLUENZA by months, stations, groups, and commands.

TABLE VII—*concluded.*

CHOLERA by months, stations, groups, and commands.

Stations.	Admissions from Influenza in each month.													Admissions from Cholera in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Bellary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Bangalore	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XI.—Southern India	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Ranikhet	...	...	...	...	...	24	8	...	...	...	...	...	32	...	...	...	...	...	...	...	...	...	...	...	...	...
Subathu	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XIIa.—Hill Stations	...	...	...	1	...	24	8	...	...	...	...	...	33	...	...	...	...	...	...	...	...	...	...	...	...	...
Landour	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Kasauli	...	...	...	...	8	5	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XIIb.—Hill Convalescent Depôts, and Sanitaria	...	...	...	...	10	5	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops marching, Bengal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...
Troops marching, Punjab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Malakand Field Force	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Deolali Depôt	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...
INDIA	12	10	31	9	11	30	8	8	...	54	87	12	272	...	1	...	4	1	14	5	22	66	2	2	...	11
Bengal	...	...	...	5	2	24	8	...	...	54	87	6	186	...	1	...	2	...	9	1	12	65	1	2	...	9
Punjab	...	...	2	1	8	5	...	...	...	...	...	1	17	...	...	...	...	...	...	...	4	...	...	...	...	...
Madras	12	10	29	3	1	1	...	8	...	...	...	4	68	...	...	...	2	1	1	1	2	...	1	...	...	...
Bombay	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	4	3	4	...	...	...	...	1

TABLE VIII.

ENTERIC FEVER by months, stations, groups, and commands.

TABLE IX.

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

Stations.*	Admissions from Enteric Fever in each month.													Admissions from Simple Continued Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Blair	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	2	...	2	...	2	8
goon	2	1	...	1	1	4	11	1	...	...	2	1	24	5	1	7	16	10	12	16	10	3	7	6	...	93
up I.—Burma Coast and Bay Islands	3	1	...	1	1	4	11	1	...	...	2	1	25	5	1	7	16	10	12	18	12	3	9	6	2	101
yetmyo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	20	13	29	13	13	2	1	1	2	111
ttila	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1	...	3	1	12	3	23
Dufferin	...	...	1	...	...	1	...	...	...	...	...	...	2	8	3	6	4	4	16	9	11	9	44	30	4	148
ebo	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
up II.—Burma Inland	...	...	2	...	...	1	...	...	...	...	...	...	3	8	3	23	25	17	47	23	24	14	46	43	9	282
William	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	10	23	19	26	1	...	...	81
Chingrakhal	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
-Dum	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
rackpore	1	2	4	2	...	5	2	6	1	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...
up IV.—Bengal and Orissa	1	2	4	2	...	6	3	6	1	...	...	...	25	...	...	1	1	...	10	23	19	26	1	...	...	81
B																										
apore	2	...	1	1	...	...	...	1	2	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
ares	...	..	1	11	9	3	1	8	5	2	2	...	42	2	...	6	9	20	15	7	9	13	6	10	2	101
habad	3	6	15	5	1	...	...	1	2	1	1	6	41	...	...	...	4	7	14	6	...	2	...	2	...	33
Allahabad	...	...	2	2	...	2	...	...	...	1	2	...	9	...	1	7	6	3	5	16	9	20	18	9	...	94
abad	1	1	...	1	1	...	1	1	1	1	1	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...
pur	...	...	...	2	1	1	...	1	...	...	...	...	5	...	...	1	1	...	4	...	...	...	3	...	...	9
know	7	4	10	16	22	2	2	1	2	5	29	28	122	5	4	...	2	3	121	70	14	42	31	15	5	312
npore	...	...	1	2	3	...	...	2	1	1	...	2	12	...	...	...	...	...	...	...	...	...	...	...	...	...
hgarh	...	...	...	2	...	...	1	...	...	...	1	1	5	..	..	...	...	...	...	...	...	..	...	...	...	...
up V.—Gangetic Plain and Chutia Nagpur	13	11	30	36	37	8	5	15	13	11	35	38	252	7	5	14	22	33	159	102	32	79	58	36	7	554
A																										
hjahanpur	...	...	...	1	...	...	...	1	...	...	...	...	2	...	...	1	...	...	1	...	...	...	...	...	...	2
eilly	1	...	2	4	...	2	...	1	1	...	...	5	16	...	7	12	12	15	18	11	10	10	2	...	...	97
ee	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
rut	5	2	14	21	14	1	4	10	13	5	6	2	97	2	...	2	2	3	8	6	...	...	...	1	...	24
hi	...	...	...	...	1	...	...	1	1	...	...	...	3	...	...	1	5	...	1	2	6	...	...	...	...	15
balla	9	7	1	10	17	3	...	13	6	3	20	49	158	1	2	5	...	3	1	1	1	7	5	2	2	30
B																										
lunder	...	...	2	1	5	3	...	...	1	...	1	1	14	...	2	1	2	4	2	...	...	...	...	...	...	11
zepore	...	1	...	3	1	...	...	...	1	2	...	4	12	...	2	3	...	...	...	...	18	...	...	...	...	33
ritsar	...	1	...	...	...	...	2	4	4	2	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
can Meer	1	...	3	2	1	4	1	...	...	...	1	1	14	...	...	2	2	1	10	10	6	1	...	...	...	32
t Lahore	1	...	...	1	...	3	...	...	...	...	1	...	6	...	...	...	...	2	...	4	2	...	...	...	...	8
lkot	...	...	1	2	6	2	...	..	...	1	2	1	15	1	1	4	12	27	28	15	...	...	...	...	...	91
walpindi	3	1	5	9	8	19	11	11	8	4	7	9	95	1	1	2	3	2	11	14	11	7	1	1	...	54
mbelipur	...	...	...	2	7	12	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
ock	...	...	...	1	2	1	..	...	1	...	...	...	5	...	...	...	...	..	...	...	...	...	...	...	...	...
up VI.—Upper Sub-Himalayan	20	12	28	57	62	51	18	41	36	17	38	72	452	5	15	33	38	57	80	66	64	25	8	4	2	397
A																										
wbera	...	...	1	...	6	3	...	...	1	1	...	...	12	...	...	...	...	1	...	...	...	...	...	...	...	1
hawar	3	5	12	3	1	7	4	3	6	10	18	15	87	...	...	...	...	...	...	...	...	...	...	...	...	..
oltan	...	...	...	...	...	...	...	...	...	1	...	1	2	1	...	2	2	11	5	45	39	34	1	...	...	140
C																										
derabad	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
rrachee	..	...	...	3	1	1	...	2	1	1	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
roup VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana	3	5	13	6	8	11	4	5	8	13	18	17	111	1	...	2	2	12	5	45	39	34	1	...	...	141
A																										
esa	2	...	4	3	3	...	...	...	1	2	...	...	15	...	...	...	...	...	11	...	...	...	8	1	1	21
medabad	...	...	1	...	...	...	...	1	...	..	...	...	2	..	...	...	...	1	1	...	...	...	...	...	...	2

* Stations where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table III.

TABLE VIII—*continued.*

ENTERIC FEVER by months, stations, groups, and commands.

TABLE IX—*continued.*

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

Stations.	Admissions from Enteric Fever in each month.												Admissions from Simple Continued Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
B																									
Neemuch	...	...	...	1	2	...	...	1	...	1	2	...	7	...	...	...	1	1	...	...	...	...	...	...	
Nasirabad	4	...	...	7	2	1	...	6	5	...	...	...	25	...	...	...	...	...	...	...	...	...	...	...	
Muttra	...	...	...	5	2	...	...	4	...	3	...	...	16	...	...	...	...	...	2	...	...	...	...	...	
Agra	...	...	2	59	23	2	3	35	38	12	4	3	181	...	...	...	16	32	20	37	20	...	...	...	1
Jhansi	5	3	...	3	3	...	...	1	9	4	8	27	63	1	...	...	...	3	18	1	...	...	...	...	
Nowgong	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	3	...	7	2	1	1	...	...	
Indore	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	..	...	...	...	...	...	...	...	
Mhow	5	2	3	19	9	2	13	19	3	1	...	5	81	1	1	14	21	12	8	8	9	10	1	...	1
Group VIII.—South-Eastern Rajputana, Central India, and Gujarat	16	6	10	97	44	5	16	67	59	23	14	35	392	2	2	14	41	49	67	48	30	11	9	1	2
A																									
Saugor	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	
Jubbulpore	2	2	6	1	2	3	...	3	3	...	...	1	23	...	...	...	...	...	...	...	...	...	...	...	
Kamptee	1	...	...	1	4	1	...	1	1	1	...	...	10	...	...	...	4	9	27	18	15	5	4	5	1
Sitabaldi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	
B																									
Secunderabad	14	11	8	4	...	...	6	9	16	18	8	1	95	10	7	5	8	38	64	38	17	22	13	6	...
Belgam	...	...	...	1	...	...	...	2	...	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	
Poona	..	...	6	2	2	...	4	7	12	1	2	...	36	3	2	1	3	2	2	2	...	2	5	1	1
Kirkee	1	2	...	...	1	...	2	5	4	...	...	...	15	1	...	1	2	...	...	...	...	...	3	...	...
Ahmednagar	4	1	3	9	...	2	...	2	5	...	2	2	30	7	1	...	3	2	...	3	1	2	4	1	...
Group IX.—Deccan	22	16	23	19	9	7	12	29	41	21	12	4	215	21	10	9	21	52	93	61	33	31	29	13	2
Colaba	...	...	...	...	1	...	...	1	1	1	...	...	4	2	1	...	2	3	3	1	8	8	4	5	8
Cannanore	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...
Calicut	...	...	...	...	1	...	4	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...
Mallapuram	...	...	...	...	...	2	2	...	1	...	...	...	5	1	...	...	...	...	2	...	...	...	1	...	1
Group X.—Western Coast	...	1	...	...	2	2	6	1	2	1	...	...	15	4	1	1	2	3	5	1	8	8	5	5	9
A																									
Bellary	...	...	...	...	...	...	2	1	3	...	2	...	8	...	...	...	...	...	...	...	...	...	1	...	
Bangalore	2	19	10	5	3	5	6	6	3	4	...	4	67	6	8	6	7	13	17	15	14	17	20	34	5
B																									
Pallavaram	...	1	...	...	...	...	...	...	...	...	...	...	1	3	4	1	...	...	...	...	1	1	...	2	...
St. Thomas' Mount	...	1	...	...	...	1	1	...	...	...	1	...	4	3	8	...	4	6	11	5	3	...	4	1	...
Madras	...	...	1	2	...	...	1	...	...	1	...	...	5	...	...	...	...	...	6	1	...	2	1	...	...
Group XI.—Southern India	2	21	11	7	3	6	10	7	6	5	3	4	85	12	20	7	11	19	34	21	18	20	25	38	5
Ranikhet	...	...	6	5	1	1	1	5	...	...	..	...	19	...	...	9	8	13	3	...	3	...	...	...	...
Chaubuttia	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Chakrata	...	...	6	25	14	3	2	4	...	...	...	...	54	...	...	...	...	...	...	...	...	...	...	...	...
Solon	...	...	...	1	3	4	1	1	...	...	...	...	10	...	...	...	...	...	...	...	1	...	...	...	...
Dagshai	...	...	2	20	14	24	15	1	...	...	...	...	76	...	...	...	6	2	3	4	...	...	...	...	1
Subathu	...	...	1	16	2	1	4	5	4	...	...	...	33	...	...	...	...	...	...	...	...	...	...	...	...
Jutogh	...	...	4	4	...	2	...	...	4	...	...	...	14	...	...	...	...	...	...	...	..	...	...	...	...
Khyragully	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Baragully	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Kelodunnah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Camp Gharial	...	...	...	...	8	...	...	...	...	...	...	...	8	...	...	...	...	...	1	...	...	...	...	...	...
,, Thobba	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
,, Lower Topa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	1	...	...	...	2	15	53	8	1	1	...	...	80	...	...	...	...	...	...	...	...	...	...	...	...
Group XIIa.—Hill Stations	1	...	19	71	48	55	89	30	19	12	7	...	351	...	...	10	14	17	8	6	4	...	...	1	...
Darjeeling	...	...	2	1	1	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Naini Tal	...	...	...	1	1	2	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Landour	...	...	...	3	...	...	...	1	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Kasauli	...	...	3	3	1	2	...	...	...	...	1	...	10	...	...	...	...	...	...	...	...	...	1	...	
Dalhousie	...	...	...	0	4	...	...	...	...	...	...	...	10	...	...	...	3	1	...	...	...	...	...	...	...
Murree	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Pachmarhi	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	1	...	1	...	...	...	...
Wellington	...	...	...	2	1	7	1	1	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...
Group XIIb.—Hill Convalescent Depôts, and Sanitaria	...	...	6	16	9	12	1	2	...	...	1	...	47	...	...	...	5	2	1	...	1	...	...	1	...

Stations.	Admissions from Enteric Fever in each month.													Admissions from Simple Continued Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Troops marching, Bengal	...	2	1	...	...	...	...	...	...	...	1	13	17	...	...	...	...	...	...	...	...	...	...	1	1
Troops marching, Punjab	1	...	...	...	...	...	...	...	4	8	28	2	43	1	...	...	...	...	...	...	2	...	...	...	3
Troops marching, Madras	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	2	1	...	...	...	...	...	...	3
Hochi Field Force	...	...	...	...	...	...	4	16	25	6	6	2	59	...	...	...	...	...	...	1	1	1	...	...	3
Malakand Field Force	...	...	...	...	...	...	...	16	12	6	5	2	41	...	...	...	...	...	...	...	57	9	1	...	67
Kohat-Kurram Field Force	...	...	...	...	...	...	...	...	3	1	...	...	4	...	...	...	...	...	...	...	...	3	...	...	3
Mohmund ,, ,,	...	...	...	...	...	...	...	...	2	1	...	...	3	...	...	...	...	...	...	...	...	52	13	...	65
Tirah ,, ,,	...	...	...	...	...	...	...	...	...	5	33	19	57	...	...	...	...	...	...	...	...	...	23	22	1	46
Deolali Depôt	4	2	...	...	...	...	...	2	1	1	3	2	15	1	3	4	5	2	4	10	6	...	1	...	...	36
Coonamallee ,,	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	1	...	...	...	...	...	2
Aden	...	...	...	...	...	...	...	...	...	...	...	...	...	10	2	5	5	21	34	32	17	8	6	1	4	145
INDIA	86	79	147	313	223	168	179	238	232	131	207	211	2,214	77	62	131	210	295	559	458	367	324	235	171	44	2,933
Bengal	27	23	74	168	100	30	18	87	81	35	54	89	786	10	13	40	71	100	248	184	92	116	61	37	8	980
Punjab	18	15	35	84	92	106	91	47	41	33	79	83	724	5	8	19	30	55	61	98	90	49	7	4	2	428
Madras	19	34	21	16	6	20	34	20	23	24	14	6	237	37	31	44	62	85	159	101	71	59	94	93	17	853
Bombay	22	7	17	45	25	12	32	52	45	20	16	10	303	25	10	28	47	55	91	74	56	35	36	15	16	488

TABLE X.

INTERMITTENT FEVER by months, stations, groups, and commands.

STATIONS.*	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair	...	...	...	...	3	3	2	...	...	...	...	...	8
Rangoon	13	4	11	...	...	2	1	1	1	6	6	4	49
GROUP I.—BURMA COAST AND BAY ISLANDS	13	4	11	...	3	5	3	1	1	6	6	4	57
Thayetmyo	4	2	2	...	...	3	2	6	2	...	1	1	23
Meiktila	3	1	1	3	...	...	4	...	2	...	...	2	16
Fort Dufferin	2	8	4	2	3	2	2	1	2	1	21	80	128
Shwebo	7	8	5	16	4	2	7	6	6	2	10	10	77
Bhamo	14	2	1	1	5	14	20	26	11	13	3	1	111
GROUP II.—BURMA INLAND	30	21	13	16	12	21	35	39	23	16	35	94	355
Fort William	4	14	9	3	6	4	4	13	9	11	15	8	100
„ Fulta	1	...	...	...	...	...	...	2	...	1	...	1	6
Dum-Dum	17	10	28	22	25	23	24	14	32	20	20	32	267
Barrackpore	8	8	7	5	5	10	14	27	47	91	153	123	498
GROUP IV.—BENGAL AND ORISSA	30	32	44	30	36	37	47	56	88	124	188	164	871
B													
Dinapore	7	6	10	16	12	26	23	7	15	15	26	12	175
Benares	4	2	3	2	...	1	3	2	2	2	9	9	39
Allahabad	5	3	11	3	5	4	12	15	45	77	90	22	293
Fort Allahabad	...	1	1	...	...	...	3	2	5	12	10	4	41
Fyzabad	8	2	10	16	12	29	24	12	19	2	5	5	133
Sitapur	3	...	4	3	7	14	13	8	5	17	7	3	84
Lucknow	11	12	26	58	29	28	31	47	94	61	4	31	467
Cawnpore	6	3	4	10	17	23	22	19	61	64	41	67	347
Fatehgarh	...	1	3	...	5	9	7	5	22	30	14	8	101
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	44	30	72	100	84	136	138	118	265	273	261	164	1,686
A													
Shahjahanpur	1	2	1	2	1	3	5	8	15	28	14	...	80
Bareilly	7	0	...	4	...	1	1	10	33	81	67	32	242
Roorkee	...	...	1	1	...	1	2	1	5	14	15	6	46
Meerut	31	14	17	20	15	14	32	163	157	145	134	96	838
Delhi	5	4	2	0	2	17	6	43	90	44	62	31	325
Umballa	11	13	11	11	16	28	15	15	47	62	313	141	683
B													
Jullundur	1	2	2	...	4	10	7	1	24	25	47	177	300
Ferozepore	6	6	20	3	10	33	56	36	138	150	171	83	841
Amritsar	3	4	3	...	2	4	6	3	23	12	13	3	76
Meean Meer	13	19	29	11	9	9	12	13	53	40	256	137	606
Fort Lahore	2	1	...	1	...	3	4	2	22	13	34	16	103
Sialkot	4	2	4	11	10	13	20	18	9	5	26	29	157
Rawalpindi	12	24	33	35	23	18	42	101	149	295	337	170	1,251
Campbellpur	1	1	...	1	2	3	9	4	9	29	51	10	120
Attock	1	2	...	2	3	1	1	3	9	4	7	7	40
GROUP VI.—UPPER SUB-HIMALAYAN	104	100	123	136	113	158	218	426	844	587	1,547	950	5,708
A													
Nowshera	16	5	7	4	45	29	12	26	14	41	36	29	264
Peshawar	24	11	27	18	23	63	59	158	120	334	493	266	1,454
Mooltan	6	8	1	7	2	...	...	...	95	193	178	108	598
C													
Hyderabad	1	2	28	16	22	24	23	28	18	26	45	34	267
Kurrachee	151	85	58	31	57	62	54	84	63	94	252	218	1,213
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	198	115	121	76	151	179	148	296	318	688	914	592	3,796

* Stations where neither Intermittent Fever nor Remittent Fever occurred are not shown in these tables. For the annual rates see Table III.

TABLE XI.

REMITTENT FEVER by months, stations, groups, and commands.

STATIONS.*	ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon	...	...	1	...	...	1	1	...	1	...	2	...	6
GROUP I.—BURMA COAST AND BAY ISLANDS	...	...	1	...	...	1	1	...	1	...	2	...	6
Thayetmyo	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin	...	...	...	...	...	1	...	...	...	...	...	...	1
Shwebo	...	...	...	1	...	8	6	9	9	26	128	44	231
Bhamo	1	...	...	...	...	1	...	...	1	...	...	...	3
	...	...	1	...	...	...	1	...	...	...	...	...	2
GROUP II.—BURMA INLAND	1	...	1	1	...	10	7	9	10	26	128	44	237
Fort William	...	2	...	...	1	4	4	13	10	1	12	7	54
„ Fulta	...	...	...	...	...	...	...	...	...	...	...	...	...
Dum-Dum	...	...	1	...	...	...	...	...	...	...	...	...	1
Barrackpore	...	...	...	...	...	1	...	...	...	...	...	...	1
GROUP IV.—BENGAL AND ORISSA	...	2	1	...	1	5	4	13	10	1	12	7	56
B													
Dinapore	...	...	3	5	...	...	...	2	4	1	...	...	15
Benares	...	...	1	...	2	4	...	1	2	5	1	3	19
Allahabad	...	...	...	...	...	...	...	2	1	...	...	...	3
Fort Allahabad	...	...	...	...	...	...	...	...	...	...	...	...	...
Fyzabad	...	...	...	...	...	...	...	...	...	...	...	...	...
Sitapur	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow	...	...	...	...	1	1	2	1	...	...	...	2	7
Cawnpore	8	6	...	1	5	5	5	4	2	...	3	2	41
Fatehgarh	1	...	...	1	...	...	...	...	...	...	1	...	3
	...	...	...	...	...	3	1	...	...	2	...	1	7
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	9	6	4	7	8	13	8	10	9	8	5	8	95
A													
Shahjahanpur	...	...	...	...	...	...	1	...	1	...	...	...	2
Bareilly	...	...	...	...	...	...	...	...	...	...	2	...	2
Roorkee	...	...	1	...	...	...	...	...	...	...	...	...	1
Meerut	...	1	3	...	2	9	2	...	...	1	...	...	18
Delhi	...	...	...	...	...	...	...	4	11	17	8	...	40
Umballa	...	...	1	...	...	...	...	...	...	...	6	2	9
B													
Jullundur	...	...	...	...	2	1	6	1	...	...	2	...	12
Ferozepore	...	...	...	...	1	1	...	...	...	...	...	...	2
Amritsar	...	...	...	...	...	...	2	4	2	6	8	...	25
Meean Meer	...	...	...	...	1	...	3	...	...	...	...	...	5
Fort Lahore	...	...	...	...	...	...	...	1	...	1	...	...	9
Sialkot	4	1	3	1	5	2	...	...	...	2	4	1	18
Rawalpindi	1	...	1	...	1	4	...	1	9	5	...	...	22
Campbellpur	...	...	...	...	...	...	2	...	...	2	...	...	4
Attock	...	...	...	...	1	...	...	...	...	1	...	1	3
GROUP VI.—UPPER SUB-HIMALAYAN	5	2	9	3	14	18	16	11	25	35	30	4	172
A													
Nowshera	2	...	2	7	6	3	...	3	...	...	2	...	25
Peshawar	2	1	3	12	20	19	9	3	21	12	21	14	137
Mooltan	...	...	...	...	...	...	...	...	...	2	3	...	5
C													
Hyderabad	...	...	...	1	...	1	...	1	1	3	3	3	13
Kurrachee	2	...	...	...	...	...	...	...	...	...	...	...	2
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	6	1	5	20	26	23	9	7	22	17	29	17	182

Stations.	Admissions from Intermittent Fever in each month.													Admissions from Remittent Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Deesa	6	7	8	5	4	18	20	21	30	52	44	7	222	2	...	...	2	1	...	1	2	...	...	...	...	8
Ahmedabad	7	8	16	13	9	18	20	12	28	45	27	12	215	...	...	1	...	...	...	...	2	1	...	...	...	4
B																									
Neemuch	5	10	16	14	11	15	18	47	50	106	86	27	405	...	...	3	3	...	...	...	...	1	1	...	...	8
Nasirabad	22	20	16	18	14	15	15	30	28	24	25	7	234	...	...	1	1	1	...	...	...	1	1	...	...	5
Muttra	8	2	2	10	8	6	6	96	153	119	122	31	495	...	...	...	...	...	...	...	1	...	...	...	...	1
Agra	4	2	12	15	3	24	14	79	152	8	75	36	497	...	...	...	...	...	...	...	...	...	2	...	...	2
Jhansi	10	5	9	12	9	20	21	72	79	69	49	5	360	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowgong	3	5	3	9	13	32	15	102	120	129	88	35	554	...	...	1	2	...	2	1	...	...	...	...	...	6
Indore	1	1	2	3	2	2	...	7	8	11	...	3	40	...	...	...	...	...	...	...	1	...	1	...	...	2
Mhow	24	22	43	28	35	26	24	59	91	90	84	42	571	1	2	2	4	9	1	8	15	7	2	3	...	54
Group VIII.—S.-E. Rajputana, Central India, and Gujarat	90	82	127	127	108	176	153	455	744	726	600	205	3,593	3	2	8	12	11	3	10	21	10	7	3	...	90
A																									
Saugor	7	2	2	6	2	6	3	24	20	36	20	19	147	...	...	...	...	...	2	1	...	...	...	...	...	3
Jubbulpore	24	23	6	49	35	62	33	76	104	120	71	28	685	...	...	...	1	1	1	...	3	10	3	3	...	22
Kamptee	6	12	2	50	13	9	10	30	42	39	25	25	285	4	...	...	...	...	...	...	1	1	...	...	...	6
Sitabaldi	2	1	2	1	1	3	3	6	11	7	4	...	41	...	...	...	...	...	...	...	...	...	...	...	...	...
B																									
Secunderabad	24	34	16	16	22	23	11	32	46	52	35	34	345	...	...	...	...	...	...	1	...	9	11	5	1	27
Belgam	3	8	5	...	1	7	21	38	19	44	33	9	192	...	...	...	...	...	...	...	...	...	...	...	...	...
Satara	11	15	3	...	3	1	1	22	7	15	8	10	96	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	36	39	37	42	60	105	78	91	52	72	49	23	680	...	...	...	...	1	...	...	...	3	...	...	...	4
Kirkee	19	11	15	25	35	41	17	34	46	43	16	15	317	...	...	...	...	...	...	...	1	...	...	...	1	2
Ahmednagar	9	9	34	53	17	9	6	8	6	5	5	6	167	...	...	...	...	...	...	...	...	...	...	...	...	...
Group IX.—Deccan	141	151	201	242	189	266	183	361	353	433	256	169	2,955	4	...	...	1	2	3	2	5	23	14	8	2	64
Colaba	6	7	14	11	13	50	29	41	32	21	24	20	268	2	2	1	...	...	...	...	...	...	2	...	...	7
Calicut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Mallapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Group X.—Western Coast	6	7	14	11	13	50	29	41	32	21	24	20	268	2	2	1	...	...	...	1	...	...	2	1	...	9
A																									
Bellary	12	25	23	12	7	7	7	12	9	22	24	9	169	...	...	...	...	...	2	...	...	...	...	...	...	2
Bangalore	2	1	2	2	10	5	1	4	6	7	12	20	73	1	5	1	...	...	1	...	3	...	...	...	1	12
B																									
Pallavaram	3	8	1	...	...	...	...	...	1	1	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Thomas' Mount	2	...	...	2	3	2	...	3	2	...	2	1	17	...	1	...	1	...	...	...	...	...	...	...	...	2
Madras	25	35	24	15	12	4	6	13	7	11	11	7	170	4	...	...	...	...	...	...	...	...	...	...	...	4
Group XI.—Southern India	44	69	50	31	32	18	14	32	25	41	50	37	443	5	6	1	1	...	3	...	3	...	...	...	1	20
Bernardmyo	5	8	5	1	2	...	5	1	2	...	2	...	31	...	...	1	...	...	...	...	...	...	...	...	...	1
Ranikhet	...	1	2	4	5	...	7	4	1	...	...	...	24	...	...	...	...	1	...	...	2	...	1	...	...	4
Chaubuttia	...	...	1	3	2	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Chakrata	...	...	3	18	8	4	3	7	...	...	1	...	44	...	...	2	5	4	...	...	...	...	...	...	...	11
Solon	...	...	...	...	4	13	11	4	1	1	1	...	35	...	...	...	...	...	1	...	...	...	...	...	...	1
Dagshai	...	1	1	5	11	8	7	5	1	5	3	...	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Subathu	1	...	2	11	3	7	3	11	16	3	1	...	58	...	...	...	6	...	1	...	2	2	1	...	...	12
Jutogh	...	...	3	4	2	3	4	2	1	3	1	...	23	...	...	...	1	...	...	...	...	...	...	...	...	1
Khyragully	...	...	...	...	1	...	...	1	...	...	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	2
Baragully	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuldunnah	...	...	...	4	1	8	4	1	1	1	...	...	20	...	...	...	...	...	...	1	...	...	...	...	...	1
Kalabagh	...	...	...	...	...	...	...	2	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial	...	...	...	...	9	24	7	6	...	...	...	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...
,, Thobba	...	...	...	1	10	5	5	11	5	1	...	...	38	...	...	...	...	...	...	...	...	...	...	...	...	...
,, Lower Topa	...	...	...	1	16	13	10	14	...	...	...	...	54	...	...	...	...	1	...	...	...	...	...	...	...	1
Ghora Dhaka	...	...	...	...	...	3	1	1	...	...	...	...	5	...	...	...	...	...	...	...	1	...	...	1	...	2
Cherat	...	...	...	...	21	18	22	3	25	71	3	...	163	...	...	...	...	3	19	24	4	...	...	...	...	50
Quetta	10	7	11	16	20	35	43	52	48	21	20	17	300	3	...	...	1	1	3	7	8	7	1	1	...	32
Ramandrug	...	...	3	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XIIa.—Hill Stations	16	17	31	69	115	141	133	125	101	100	32	17	904	3	...	3	13	12	24	32	17	9	3	2	...	118

TABLE X—*concluded.*

INTERMITTENT FEVER by months, stations, groups, and commands.

STATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL
Darjeeling	...	2	5	7	8	9	4	6	2	...	3	4	50
Naini Tal	...	...	1	...	2	...	2	1	2	1	2	...	11
Landour	...	...	...	4	7	3	...	19	2	..	...	...	35
Kasauli	...	...	6	4	8	4	11	30	15	2	1	...	81
Dalhousie	1	...	...	10	22	26	27	9	7	2	3	...	107
Murree	...	...	...	...	2	1	3	...	...	6	...	...	12
Taragarh	...	...	...	1	1	2	...	2	1	...	1	...	8
Mount Abu	1	3	1	7	7	16	2	...	...	...	...	...	39
Pachmarhi	...	...	1	10	13	6	4	1	1	...	...	...	40
Purandhur	...	3	8	2	5	4	2	1	...	1	2	1	29
Khandalla	4	1	6	1	4	...	...	...	...	...	1	3	20
Wellington	1	2	8	7	6	8	14	13	5	3	1	1	69
GROUP XIIâ.—HILL CONVALESCENT DEPÔTS, AND SANITARIA	7	13	36	53	85	79	69	85	35	16	14	9	501
Troops marching, Bengal	1	...	...	6	...	...	...	...	...	...	49	71	127
Troops marching, Punjab	3	5	4	3	4	...	3	26	60	129	132	49	418
Troops marching, Madras	...	...	...	1	...	...	...	...	...	...	...	...	1
Troops marching, Bombay	...	...	...	...	...	...	...	...	...	...	11	4	15
Tochi Field Force	...	...	...	...	...	...	50	233	168	204	84	28	767
Malakand ,,	...	...	...	...	...	...	...	151	233	339	281	81	1,085
Kohat-Kurram ,,	...	...	...	...	...	...	...	23	249	110	...	...	382
Mohmund ,,	...	...	...	...	...	...	...	10	193	5	...	...	208
Tirah ,,	...	...	...	...	...	...	...	...	...	533	1,347	363	2,243
Deolali Depôt	46	20	21	17	11	21	53	32	18	29	47	35	350
Poonamallee Depôt	...	...	...	...	...	2	1	3	...	...	...	...	6
Aden	49	32	55	49	21	17	3	3	6	3	9	9	256
INDIA	822	698	923	967	979	1,306	1,275	2,516	3,757	4,789	5,898	3,065	26,995
BENGAL	175	130	238	316	259	381	338	819	1,297	1,265	1,222	723	7,163
PUNJAB	111	104	153	175	277	347	302	511	906	1,367	2,017	1,176	7,606
MADRAS	120	146	115	73	78	81	104	159	121	162	162	170	1,503
BOMBAY	416	318	417	403	365	494	421	610	590	704	785	515	6,038

TABLE XI—*concluded.*

REMITTENT FEVER by months, stations, groups, an commands.

ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
...	...	...	...	...	...	1	...	...	...	...	...	1
...	...	...	...	2	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	1	...	...	...	1
...	...	...	1	...	...	...	...	...	1	...	...	2
...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	...	4	2	2	...	...	...	...	...	...	9
...	1	...	7	2	2	1	1	1	1	...	1	17
...	...	1	...	...	...	...	...	...	...	1	5	7
...	...	...	1	...	1	...	3	7	4	44	28	88
...	...	...	...	...	...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	6	14	38	57	11	4	130
...	...	...	...	...	...	...	...	79	137	37	45	3	301
...	...	...	...	...	...	...	...	...	2	4	...	...	6
...	...	...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	67	29	17	113
...	...	...	...	...	...	...	...	...	...	2	1	...	3
...	1	...	...	...	...	...	...	...	...	...	...	...	1
3	...	2	5	2	3	1	...	1	2	...	...	19
41	23	37	71	78	109	98	194	165	287	352	142	1,737
9	9	13	17	17	32	18	33	42	33	31	20	274
9	2	10	31	44	53	47	24	43	37	91	47	438
6	8	4	6	2	16	10	12	20	37	137	47	365
17	4	10	17	15	8	17	31	23	15	8	4	169

TABLE XII.

PNEUMONIA by months, stations, groups, and commands.

TABLE XIII.

DYSENTERY by months, stations, groups, and commands.

Stations.*	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	3
Rangoon	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	6	4	4	12	6	6	2	3	3	2	56
Group I.—Burma Coast and Bay Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	4	5	7	4	4	13	6	6	2	3	3	2	59
Thayetmyo	..	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	3	3	5	...	...	...	...	11
Meiktila	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	1	...	...	1	...	...	...	7
Fort Dufferin	...	...	...	1	...	...	...	...	...	...	1	...	2	3	1	6	...	9	1	4	2	1	2	3	3	35
Shwebo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	2	4	2	1	2	1	...	16
Bhamo	...	...	2	...	...	1	...	1	...	...	...	...	4	...	...	...	1	...	1	1	1	...	1	...	...	5
Group II.—Burma Inland	...	...	2	1	...	2	...	1	...	...	1	...	7	3	3	7	5	11	8	12	10	3	5	4	3	74
Fort William	...	1	1	...	...	...	...	...	...	...	...	...	2	2	4	2	1	2	2	3	14	5	3	1	2	41
,, Fulta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
,, Chingrikhal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Dum-Dum	...	...	...	...	...	...	1	...	1	...	...	...	2	...	1	2	2	1	5	7	11	6	1	1	1	38
Barrackpore	...	1	1	...	...	...	...	...	...	...	...	...	2	2	3	2	2	2	7	10	16	9	2	1	2	58
Group IV.—Bengal and Orissa	...	2	2	...	...	...	1	...	1	...	...	...	6	4	8	6	5	5	15	20	42	20	6	3	5	139
B																										
Dinapore	...	...	...	1	1	1	...	1	...	...	...	...	4	2	...	1	2	1	...	2	3	1	3	7	1	23
Benares	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	3	2	3	4	5	20
Allahabad	...	...	...	...	1	...	1	2	...	...	1	...	5	4	5	3	4	4	3	3	9	2	6	8	4	55
Fort Allahabad	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	1	2
Fyzabad	...	...	...	1	...	...	...	...	...	...	...	...	1	4	5	4	6	3	...	3	2	...	1	...	...	28
Sitapur	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	2	...	1	5
Lucknow	...	1	1	...	...	...	...	...	...	...	1	...	3	7	7	6	12	8	13	6	4	6	8	24	10	111
Cawnpore	...	...	...	...	...	...	...	...	...	...	...	2	2	4	2	1	...	3	4	4	1	...	2	2	5	28
Fatehgarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	1	...	5
Group V.—Gangetic Plain and Chutia Nagpur	...	1	1	2	2	2	1	3	...	...	3	2	17	21	19	17	24	19	20	20	26	11	27	46	27	277
A																										
Shahjahanpur	3	1	...	...	...	...	...	...	...	...	...	...	4	2	...	...	...	...	...	1	1	...	5	...	...	9
Bareilly	...	...	2	...	...	...	...	...	...	...	...	...	2	6	10	5	3	...	1	...	4	...	1	10	8	48
Roorkee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Meerut	1	...	1	...	...	3	...	1	...	...	...	...	6	1	1	3	4	1	3	2	2	2	5	6	3	33
Delhi	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	1	4
Umballa	1	1	2	...	...	...	...	...	...	...	3	1	8	5	3	5	7	3	4	...	1	7	1	20	5	61
B																										
Jullundur	...	...	...	...	3	...	...	...	1	...	...	...	4	...	...	2	1	3	5	...	1	5	...	1	1	19
Ferozepore	1	...	1	...	2	1	...	...	...	...	...	...	5	...	...	1	...	...	1	1	...	4	6	9	1	23
Amritsar	1	...	...	...	...	...	...	...	...	...	1	...	2	1	...	...	...	...	1	...	...	2	...	...	...	4
Meean Meer	1	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	3	4	...	2	1	4	13	2	29
Fort Lahore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	3
Sialkot	...	...	...	...	...	...	1	...	...	...	...	...	1	3	2	...	1	6	2	...	2	...	3	3	1	23
Rawalpindi	1	3	1	1	...	...	...	...	...	...	5	4	15	5	4	1	7	4	4	1	10	8	16	29	19	108
Campbellpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Attock	1	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	2	2	2	...	8
Group VI.—Upper Sub-Himalayan	10	5	8	2	5	5	1	1	1	...	9	5	52	23	20	17	24	21	25	5	27	32	45	94	41	374
A																										
Nowshera	1	...	...	...	...	...	...	...	...	1	...	1	3	1	...	1	...	...	...	...	...	1	...	17	16	36
Peshawar	...	...	3	...	...	...	...	...	...	...	6	11	20	2	4	1	2	2	8	2	4	5	23	27	41	121
Mooltan	...	1	1	...	...	...	...	1	...	...	1	...	4	...	...	...	...	...	...	...	...	4	...	1	1	6
C																										
Hyderabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	3	4	2	2	2	17
Kurrachee	...	...	...	...	...	1	...	...	...	...	2	..	3	...	3	7	...	1	1	...	7	3	1	3	1	27
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana	1	1	4	...	...	1	...	1	...	1	9	12	30	3	8	9	2	3	10	4	14	17	26	50	61	207
A																										
Deesa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	1	1	1	...	2	...	...	...	9
Ahmedabad	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	...	...	...	1	...	1	1	...	...	4
B																										
Neemuch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	3	2	3	...	12
Nasirabad	...	1	...	...	...	...	...	...	...	...	...	...	1	2	2	5	3	1	...	...	3	2	...	3	...	21
Muttra	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	..	...	...	...	...	1	...	2
Agra	...	1	1	...	1	...	...	1	...	...	1	1	6	...	1	5	7	1	4	2	13	6	8	12	4	63
Jhansi	...	...	...	...	...	...	...	1	...	...	...	...	1	3	...	1	...	1	1	3	11	9	6	3	5	43
Nowgong	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...	5
Indore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	3
Mhow	...	1	1	...	...	...	...	...	...	...	...	...	2	...	1	...	...	1	2	13	18	3	2	2	6	48
Group VIII.—S. E. Rajputana, Central India, and Gujarat	...	3	3	...	1	...	...	2	...	1	1	1	12	5	6	14	10	6	9	22	51	27	20	25	15	210

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table III.

TABLE XII—*concluded.*

PNEUMONIA by months, stations, groups, and commands.

TABLE XIII—*concluded.*

DYSENTERY by months stations, groups, and commands.

Stations.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Saugor	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	2	...	...	...	...	3
Jubbulpore	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	6	4	4	5	2	2	...	1	3	1	31
Kamptee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	2	1	2	8
Sitabaldi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	1	...	...	...	1
B																										
Secunderabad	1	...	...	...	...	...	...	...	...	1	...	1	3	15	11	14	12	4	7	10	20	25	17	10	6	151
Belgam	1	...	1	...	...	...	...	1	...	...	...	...	3	2	2	...	4	4	6	4	6	1	2	4	4	39
Satara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	3
Poona	2	2	...	...	...	...	1	...	...	...	...	2	7	1	1	5	...	1	1	1	8	4	1	...	...	23
Kirkee	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	2	...	1	...	1	...	7
Ahmednagar	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	...	1	3	1	4	3	3	...	1	...	18
Group IX.—Deccan	4	2	1	...	...	...	2	2	...	1	...	3	15	23	16	25	22	20	20	24	41	36	24	20	13	284
Colaba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	2	...	5	...	...	...	...	11
Mallapuram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	3	...	1	...	1	9
Group X.—Western Coast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	1	5	...	8	...	1	...	1	20
A																										
Bellary	...	...	...	...	...	1	...	...	...	...	...	...	1	3	3	2	...	1	1	3	2	...	2	1	1	19
Bangalore	1	...	2	...	1	1	...	...	...	...	...	...	5	3	4	7	7	12	15	13	12	2	5	7	5	92
B																										
Pallavaram	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
St. Thomas' Mount	1	...	...	...	1	...	...	...	...	...	...	...	2	3	10	9	2	4	1	2	4	3	2	3	1	44
Madras	1	...	...	...	...	...	...	...	...	...	...	...	1	4	...	1	1	3	1	...	...	1	...	1	1	13
Group XI.—Southern India	3	...	2	...	2	2	...	...	...	...	...	...	9	14	18	19	10	20	18	18	18	6	9	12	8	170
Bernardmyo	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Ranikhet	...	...	...	1	6	2	...	...	...	...	...	...	9	...	1	11	11	6	2	2	5	...	...	...	...	38
Chaubuttia	...	...	...	1	1	...	...	1	...	...	...	...	3	...	...	...	1	...	...	...	1	...	...	...	...	2
Chakrata	...	...	...	1	...	...	1	...	...	...	...	...	2	...	...	1	4	3	6	3	3	1	...	...	...	21
Solon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	2	...	...	...	...	...	6
Dagshai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4	1	...	...	...	1	...	8
Subathu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	1	1	1	...	..	...	8
Jutogh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	3
Kuldunnah	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	2
Camp Gharial	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	1	...	...	3
,, Thobba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	2
,, Lower Topa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2
Ghora Dhaka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	...	...	...	1	...	...	...	...	...	1	1	1	4	1	...	1	...	2	3	5	14	8	8	4	2	48
Group XII(a).—Hill Stations	1	...	...	4	7	3	2	2	...	1	2	1	23	1	1	14	24	15	24	17	26	10	14	5	2	153
Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3	1	2	...	...	2	1	...	15
Naini Tal	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	2	2	1	...	...	1	...	...	6
Landour	...	...	...	...	1	1	...	1	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	1
Kasauli	...	...	1	...	2	...	1	...	...	...	...	...	4	...	1	1	2	1	...	...	3	1	1	...	...	10
Dalhousie	...	...	...	1	1	...	1	...	...	...	...	...	3	...	...	...	2	3	...	1	1	...	...	1	...	8
Murree	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Taragarh	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	1	...	...	...	1
Pachmarhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	1	...	...	4
Purandhur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Khandalla	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2
Wellington	...	...	...	2	...	1	1	...	...	...	...	...	4	...	...	...	9	1	7	6	...	...	...	1	...	24
Group XII(b).—Hill Convalescent Depôts, and Sanitaria	...	...	1	5	6	3	3	1	...	...	...	...	19	...	1	6	16	10	12	10	5	3	5	3	1	72
Troops marching, Bengal	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2	...	...	...	...	...	4	15	22
,, ,, ,, Punjab	...	...	...	...	...	...	...	...	...	4	2	...	6	...	1	2	...	1	...	1	6	4	10	10	13	48
,, ,, ,, Bombay	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Tochi Field Force	...	...	...	...	...	...	1	...	...	...	1	...	2	...	...	...	...	...	...	11	99	166	65	18	12	371
Malakand ,, ,,	...	...	...	...	...	...	...	2	...	4	4	...	10	...	...	...	...	...	...	...	29	38	26	18	3	114
Kohat-Kurram ,, ,,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	34	20	...	...	56
Mohmund ,, ,,	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	8	3	...	...	12
Tirah ,, ,,	...	...	...	...	...	...	...	...	...	1	9	6	16	...	...	...	...	...	...	...	...	...	55	246	57	358
Deolali Depôt	1	1	2	...	...	...	...	...	...	...	1	...	5	2	9	13	...	...	...	...	4	1	9	4	5	47
Poonamallee Depôt	...	...	...	...	...	...	...	1	...	...	...	...	1	4	1	...	1	4	2	4	1	7	2	1	2	29
Aden	...	...	...	...	...	...	...	1	...	...	...	...	1	7	3	2	2	2	3	1	...	2	2	4	2	30
INDIA	22	15	26	14	23	18	11	15	5	9	42	34	234	114	120	161	152	142	184	175	416	427	377	570	288	3,126
Bengal	5	5	8	5	13	9	3	9	1	...	4	3	65	40	40	60	68	47	61	59	118	52	63	90	69	767
Punjab	7	5	10	3	8	3	4	2	1	5	19	17	84	17	15	15	31	30	42	13	35	45	74	135	100	552
Madras	6	...	5	3	2	5	1	3	...	1	1	1	28	42	40	47	45	49	64	60	64	44	39	35	26	555
Bombay	4	5	3	3	...	1	2	1	...	2	4	3	28	15	25	39	8	16	17	32	68	40	32	28	21	341

TABLE XIV.

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	ADMISSIONS AND ADMISSION-RATES. Cholera.	Enteric Fever.	DEATHS AND DEATH-RATES. Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.	Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India. Y.	M.
CAVALRY.																				
th Dragoon Guards.	572	845 1,477·3	22 38·46	13 22·73	42·38 74·09	... ...	45 78·7	... ...	15 26·22	... ...	... ...	1 1·75	... ...	... ...	2 3·50	1 1·75	151	Rawalpindi, 7½ months; Fort Jamrud, 4½ months; Peshawar, ½ month; Detachment, Topa, 4½ months.	3	3
th „ „	582	928 1,594·5	11 18·90	22 37·80	71·63 123·08	... ...	28 48·1	... ...	8 13·75	... ...	... ...	... ...	... ...	1 1·72	1 1·72	1 1·72	59	Meerut, 12 months. Detachment, Chakrata, 8½ months.	4	2½
th Hussars .	473	700 1,479·9	8 16·91	35 74·00	56·92 120·34	... ...	26 55·0	... ...	6 12·68	... ...	... ...	... ...	... ...	... ...	... ...	2 4·23	152	Bangalore, 12 months.	1	3
th Lancers .	590	1,198 2,030·5	17 28·81	19 32·20	54·80 92·88	9 15·3	17 28·8	8 13·56	5 8·47	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Muttra, 12 months.	9	0
th „ .	25	43 1,720·0	... ...	... ...	2·68 107·20	... ...	3 120·0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	130	Sialkot, 2½ months; (draft consisting of 130 men arrived from England on 19th October 1897).	...	
th Hussars .	603	909 1,507·5	29 48·09	8 13·27	48·91 81·11	... ...	26 43·1	... ...	14 23·22	... ...	1 1·66	1 1·66	3 4·98	2 3·32	2 3·32	1 1·66	58	Sialkot, 7½ months; Rawalpindi, 4½ months; Detachment, Peshawar, 2 months.	5	1
th Lancers .	574	688 1,198·6	8 13·94	15 26·13	47·21 82·25	... ...	41 71·4	... ...	7 12·20	... ...	... ...	... ...	1 1·74	... ...	... ...	... ...	115	Umballa, 12 months.	7	3
th Hussars .	565	744 1,316·8	12 21·24	17 30·09	59·35 105·04	1 1·8	36 63·7	1 1·77	10 17·70	... ...	... ...	... ...	... ...	... ...	... ...	1 1·77	69	Lucknow, 12 months.	8	0
th „ .	568	725 1,276·4	4 7·04	25 44·01	54·66 95·18	... ...	15 26·4	... ...	1 1·76	... ...	... ...	1 1·76	... ...	... ...	... ...	... ...	64	Secunderabad, 12 months.	6	3
th „ .	570	845 1,482·5	15 26·32	25 43·86	62·84 110·25	... ...	41 71·9	... ...	13 22·81	... ...	1 1·75	... ...	... ...	... ...	... ...	... ...	150	Mhow, 12 months.	2	3
TOTAL .	5,122	7,625 1,488·7	126 24·60	179 34·95	500·78 97·77	10 2·0	278 54·3	9 1·76	79 15·42	... ...	2 ·39	3 ·59	4 ·78	3 ·59	5 ·98	6 1·17				
ARTILLERY.																				
Battery, Royal Horse Artillery.	139	216 1,554·0	1 7·19	6 43·17	14·68 101·29	... ...	7 50·4	... ...	1 7·19	... ...	... ...	... ...	... ...	... ...	... ...	... ...	14	Umballa, 7½ months; Rawalpindi, 2½ months; Peshawar, 1½ month; marching, ½ month.	8	2
„ „	166	240 1,445·8	2 12·05	4 24·10	15·03 90·54	... ...	9 54·2	... ...	2 12·05	... ...	... ...	... ...	... ...	... ...	... ...	... ...	12	Lucknow, 10 months; Practice Camp, Hurha, ½ month; marching, 1½ months.	8	2
„ „	150	205 1,366·7	5 33·33	9 60·00	18·06 120·40	... ...	9 60·0	... ...	2 13·33	... ...	... ...	... ...	... ...	1 6·67	1 6·67	... ...	15	Meerut, 12 months.	8	2
„ „	146	272 1,863·0	8 54·79	1 6·85	12·20 83·56	... ...	10 68·5	... ...	3 20·55	... ...	... ...	... ...	... ...	2 13·70	... ...	... ...	...	Sialkot, 6½ months; Practice Camp, Muridki, 1 month; Peshawar, 2 months; Hari-Singh-ka-burj, 2½ months.	2	3
„ „	149	200 1,342·3	2 13·42	4 26·85	12·75 85·57	... ...	1 6·7	... ...	1 6·71	... ...	... ...	... ...	... ...	... ...	... ...	... ...	15	Umballa, 12 months.	8	2
„ „	150	220 1,466·7	6 40·00	10 66·67	13·24 88·27	... ...	10 66·7	... ...	4 26·67	... ...	... ...	... ...	... ...	... ...	... ...	1 6·67	15	Mhow, 12 months.	4	2½
„ „	20	14 700·0	... ...	... ...	1·15 57·50	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	81	Bangalore, 1½ months; (arrived from England on 10th November 1897).	0	2
„ „	149	179 1,201·3	8 53·69	3 20·13	5·83 39·13	... ...	10 67·1	... ...	4 26·85	... ...	... ...	... ...	... ...	1 6·71	2 13·42	1 6·71	20	Rawalpindi, 5½ months; Fort Jamrud, 4½ months; marching, 2½ months.	6	2
„ „	155	188 1,212·9	2 12·90	8 51·61	12·82 82·71	... ...	6 38·7	... ...	2 12·90	... ...	... ...	... ...	... ...	... ...	... ...	... ...	20	Kirkee, 12 months.	5	2
„ „	147	159 1,081·6	3 20·41	7 47·62	12·89 87·69	... ...	7 47·6	... ...	1 6·80	... ...	... ...	... ...	... ...	... ...	1 6·80	1 6·80	...	Bangalore, 10½ months; (left for England on 21st November 1897).	10	11
„ „	173	230 1,329·5	4 23·12	5 28·90	17·19 99·36	... ...	10 57·8	... ...	3 17·34	... ...	... ...	... ...	... ...	... ...	... ...	1 5·78	15	Meerut, 12 months.	12	1½

TABLE XIV—*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Rateric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			Y. M
S. Battery, Royal Horse Artillery.	164	202 1,231·7	2 12·20	4 24·39	16·88 102·93	...	2 12·2	...	...	...	...	...	1 6·10	...	...	...	...	Secunderabad, 12 months.	12 0
1st Field Battery, Royal Artillery.	158	235 1,487·3	4 25·32	2 12·66	16·07 101·71	...	3 19·0	...	2 12·66	...	...	...	...	...	...	1 6·33	20	Kirkee, 12 months.	2 0
3rd „ „	99	133 1,343·4	2 20·20	... ...	9·58 90·77	...	1 10·1	...	2 20·20	...	...	...	...	...	...	...	9	Sangor, 7½ months; (on North-Western Frontier Field Service, 4½ months).	1 3
5th „ „	146	109 746·6	4 27·40	4 27·40	8·28 59·71	...	3 20·5	...	...	1 6·85	...	...	...	...	...	1 6·85	9	Bangalore, 11½ months; (left for England on the 16th December 1897).	14 0
6th „ „	145	216 1,489·7	4 27·59	5 34·48	13·24 91·31	...	5 34·5	...	1 6·90	...	...	...	...	1 6·90	1 6·90	...	16	Dinapore, 10½ months; Practice Camp, Barkacha, ½ month; marching, 1 month.	6 2
9th „ „	111	104 936·9	2 18·02	8 72·07	5·96 53·69	...	1 9·0	...	...	...	...	...	1 9·01	...	...	...	...	Mecan Meer, 8 months; Practice Camp, Muridki, ½ month; on North-Western Frontier Field Service, 2½ months; (left for Ireland on the 10th December 1897).	14 1
10th „ „	91	103 1,131·9	2 21·98	2 21·98	6·95 76·37	...	9 98·9	...	1 10·99	...	1 10·99	...	...	...	...	...	12	Rawalpindi, 7 months; (on North-Western Frontier Field Service, 5 months).	13 2
11th „ „	13	23 1,769·2	... ...	... ...	·49 37·69	...	...	...	...	...	...	...	...	...	...	...	83	Mecan Meer, 1 month; (arrived from England on the 29th November 1897).	0 1
15th „ „	153	165 1,078·4	3 19·61	4 26·14	11·52 75·29	...	8 52·3	...	3 19·61	...	...	...	...	...	...	...	10	Meerut, 11 months; marching, 1 month.	10 0
16th „ „	145	214 1,475·9	1 6·90	3 20·69	14·26 98·34	...	4 27·6	...	1 6·90	...	...	...	...	...	...	...	15	Kirkee, 12 months.	1 11
17th „ „	138	283 2,050·7	3 21·74	6 43·48	19·80 143·48	...	5 36·2	...	2 14·49	...	...	...	...	...	...	1 7·25	...	Jubbulpore, 10¾ months; (left for England on the 20th November 1897).	14 1
21st „ „	153	159 1,039·2	2 13·07	11 71·90	11·91 77·84	...	3 19·6	...	...	1 6·54	...	...	...	...	...	1 6·54	10	Bangalore, 12 months.	12 0
22nd „ „	140	223 1,592·9	2 14·29	5 35·71	14·01 100·07	...	6 42·9	...	2 14·29	...	...	...	...	...	...	...	31	Mhow, 12 months.	11 0
23rd „ „	168	243 1,446·4	5 29·76	3 17·86	11·87 70·65	...	3 17·9	...	1 5·95	...	...	1 5·95	...	...	1 5·95	...	8	St. Thomas' Mount, 11 months; Secunderabad, 1 month.	6 2
24th „ „	151	203 1,344·4	2 13·25	3 19·87	14·89 98·61	...	11 72·8	...	2 13·25	...	...	...	...	...	...	...	10	Agra, 10½ months; Practice Camp, Palipanari, ½ month; marching, 1 month.	7 2
25th „ „	14	15 1,071·4	... ...	... ...	·49 35·00	...	...	...	...	...	...	...	...	...	...	...	83	Bangalore, 1 month; (arrived from England on the 26th November 1897).	0 1
26th „ „	147	249 1,693·9	2 13·61	2 13·61	17·18 116·87	1 6·8	2 13·6	1 6·80	...	...	...	...	...	...	...	...	20	Kamptee, 12 months.	14 2
27th „ „	145	228 1,572·4	9 62·07	7 48·28	14·26 98·34	2 13·8	6 41·4	2 13·79	5 34·48	...	...	1 6·90	...	...	...	...	20	Nasirabad, 11 months; marching, 1 month.	10 2

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			Y. M.
h Field Bat-ery, Royal rtillery.	150	166 1,106·7	1 6·67	7 46·67	9·51 63·40	... ...	1 6·7	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	25	Belgam, 12 months	4 2
h „ „	146	271 1,856·2	6 41·10	2 13·70	18·03 123·49	... ...	11 75·3	... ...	4 27·40	... ...	... ...	2 13·70	... ...	... ...	... ...	... ...	8	Fyzabad, 9 months; Lucknow, 2½ months; Practice Camp, Hurha, ½ month.	1 2
t „ „	158	248 1,569·6	5 31·65	5 31·65	10·49 66·39	... ...	5 31·6	... ...	1 6·33	3 18·99	... ...	... ...	1 6·33	... ...	... ...	... ...	10	Meean Meer 10½ months; Practice Camp, Muridki, ½ month; marching, 1 month.	9 2
d „ „	154	152 987·0	2 12·99	7 45·45	12·89 83·70	... ...	3 19·5	... ...	... ...	... ...	... ...	1 6·49	... ...	... ...	... ...	... ...	16	Secunderabad, 12 months.	6 2
h „ „	157	183 1,163·6	4 25·48	7 44·59	14·99 95·48	... ...	5 31·8	... ...	3 19·11	... ...	... ...	... ...	... ...	... ...	... ...	... ...	12	Meerut, 11 months; marching, 1 month.	7 2
h „ „	149	253 1,698·0	4 26·85	4 26·85	15·09 101·28	... ...	10 67·1	... ...	4 26·85	... ...	... ...	... ...	... ...	... ...	... ...	... ...	46	Deesa, 11½ months; marching, ½ month.	9 2
h „ „	146	405 2,774·0	2 13·70	9 61·64	18·50 126·71	... ...	1 6·8	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	15	Neemuch, 11½ months; marching, ½ month.	10 2
h „ „	147	168 1,142·9	3 20·41	4 27·21	10·20 69·39	... ...	3 20·4	... ...	2 13·61	... ...	... ...	... ...	... ...	... ...	... ...	... ...	26	Ahmednagar, 12 months.	4 2½
t „ „	140	316 2,257·1	8 57·14	14 100·00	16·45 117·50	... ...	15 107·1	... ...	... ...	1 7·14	... ...	... ...	1 7·14	... ...	3 21·43	2 14·29	42	Barrackpore, 10 months; Practice Camp, Barkacha, ½ month; marching, 1½ month.	2 2½
d „ „	155	174 1,122·6	4 25·81	5 32·26	17·18 110·84	1 6·5	4 25·8	... ...	3 19·35	... ...	... ...	... ...	... ...	... ...	... ...	... ...	9	Secunderabad, 12 months.	11 0
h „ „	161	221 1,372·7	1 6·21	7 43·48	17·74 110·19	1 6·2	4 24·8	... ...	... ...	... ...	... ...	... ...	1 6·21	... ...	... ...	... ...	17	Bellary, 12 months.	4 2
h „ „	157	263 1,675·2	1 6·40	10 63·69	16·56 105·48	1 6·4	1 6·4	1 6·37	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	10	Cawnpore, 11½ months; Practice Camp, Hurha, ½ month.	7 2
h „ „	153	210 1,372·5	2 13·07	3 19·61	12·12 79·22	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	25	Hyderabad, 11½ months; marching, ½ month.	6 1
h „ „	144	212 1,472·2	2 13·89	13 90·28	11·60 80·56	... ...	5 34·7	... ...	1 6·94	... ...	... ...	... ...	... ...	1 6·94	... ...	... ...	36	Bareilly, 10 months; Practice Camp, Barkacha, ½ month; marching, 1½ months.	10 2
th „ „	156	180 1,153·8	5 32·05	2 12·82	10·95 70·19	... ...	3 19·2	... ...	2 12·82	... ...	... ...	1 6·41	... ...	... ...	... ...	... ...	...	St. Thomas' Mt., 12 months.	6 2
th „ „	151	241 1,596·0	4 26·49	2 13·25	15·38 101·85	... ...	5 33·1	... ...	4 26·49	... ...	... ...	... ...	... ...	... ...	... ...	... ...	19	Jullundur, 7 months; Rawalpindi, 5 months.	11 0
st „ „	146	321 2,198·6	6 41·10	1 6·85	23·10 158·22	... ...	5 34·2	... ...	3 20·55	1 6·85	... ...	... ...	... ...	... ...	... ...	1 6·85	10	Peshawar, 9 months; marching, 3 months.	7
nd „ „	22	43 1,954·5	... ...	... ...	2·27 103·18	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	79	Jubbulpore, 1½ month; (arrived from England on the 9th November 1897).	0 2
rd „ „	161	450 2,795·0	1 6·21	3 18·63	15·74 97·76	... ...	1 6·2	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	15	Kurrachee, 12 months.	11 10½
th „ „	150	223 1,486·7	2 13·33	5 33·33	14·71 98·07	... ...	4 26·7	... ...	2 13·33	... ...	... ...	... ...	... ...	... ...	... ...	... ...	12	Allahabad, 10⅔ months; Practice Camp, Barkacha, ⅓ month; marching, ⅓ month.	7 2
th „ „	140	404 2,885·7	5 35·71	14 100·00	20·18 144·14	... ...	2 14·3	... ...	1 7·14	... ...	2 14·29	... ...	... ...	... ...	... ...	1 7·14	45	Ahmedabad, 11 months; marching, 1 month.	9 2

TABLE XIV—*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			Y. M
57th Field Battery, Royal Artillery.	102	176 1,725·5	4 39·22	1 9·80	11·55 113·24	... ...	16 156·9	... ...	3 29·41	... ...	... ...	... ...	... ...	... ...	... ...	... ...	11	Campbellpur, 7½ months; Peshawar, ½ month; (on North-Western Frontier Field Service, 4½ months).	1 1
59th „ „	156	398 2,551·3	5 32·05	8 51·28	23·05 147·76	... ...	... ...	... ...	... ...	1 6·41	... ...	2 12·82	... ...	... ...	1 6·41	... ...	10	Nowgong, 11 months; Practice Camp, Palipahari, ½ month; marching, ½ month.	13 2
60th „ „	159	271 1,704·4	... ...	1 6·29	14·65 92·14	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	25	Mooltan, 10½ months; marching, 1½ months.	11 0
70th „ „	156	184 1,179·5	3 19·23	2 12·82	14·85 95·19	... ...	4 25·6	... ...	1 6·41	... ...	... ...	... ...	... ...	... ...	2 12·82	... ...	37	Lucknow, 11½ months; Practice Camp, Hurha, ½ month.	11 1
71st „ „	156	202 1,294·9	1 6·41	2 12·82	12·47 179·94	... ...	4 25·6	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	17	Ferozepore, 11 months; Practice Camp, Muridki, 1 month.	10 0
72nd „ „	151	221 1,463·6	1 6·62	3 19·87	15·33 101·52	1 6·6	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	30	Kirkee, 12 months.	9 2
80th „ „	142	379 2,669·0	14 98·59	10 70·42	31·55 222·18	1 7·0	28 197·2	2 14·08	6 42·25	... ...	... ...	2 14·08	... ...	... ...	1 7·04	1 7·04	...	Jhansi, 11½ months; Practice Camp, Palipahari, ½ month.	1 1
No. 1 Mountain Battery, Royal Artillery	59	86 1,457·6	1 16·95	2 33·90	4·29 72·71	... ...	1 16·9	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Rawalpindi, 3 months; Khyragully, 3 months; marching, 1 month; (on North-Western Frontier Field Service, 5 months).	14 2
„ 2 „ „	110	123 1,118·2	1 9·09	2 18·18	10·74 97·64	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 9·09	... ...	8	Quetta, 12 months.	11 11
„ 3 „ „	76	76 1,000·0	2 26·32	6 78·95	4·49 59·08	... ...	1 13·2	... ...	1 13·16	... ...	... ...	1 13·16	... ...	... ...	... ...	... ...	...	Jutogh, 5½ months; Fort Jamrud, ½ month; marching, 2 months; (on North-Western Frontier Field Service, 3½ months).	19 1
„ 5 „ „	89	103 1,157·3	2 22·47	2 22·47	7·25 81·46	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Rawalpindi, 6 months; Kalabagh, 5½ months; marching, ½ month.	19 1
„ 6 „ „	66	109 1,651·5	1 15·15	7 106·06	7·15 108·33	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Mandalay, 9½ months; Maymyo, 2 months; Lamaing, ½ month.	12 2
„ 7 „ „	56	46 821·4	2 35·71	... ...	3·56 63·57	... ...	1 17·9	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Rawalpindi, 3½ months; Baragully, 3 months; marching, ½ month; (on North-Western Frontier Field Service, 5 months).	11 10
„ 8 „ „	74	80 1,081·1	1 13·51	2 27·03	4·76 64·32	... ...	3 40·5	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Jutogh, 6½ months; marching, 2½ months; (on North-Western Frontier Field Service, 3 months).	10 2

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			Y. M.
9 Mountain Battery, Royal Artillery.	76	54 710·5	2 26·32	5 65·79	5·06 66·58	... ...	1 13·2	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 13·16	... ...	13	Darjeeling, 7 months; Practice Camp, Bagdogra, 1½ month; (on North Western Frontier Field Service, 3½ months).	13 2
1 Company, Eastern Division, Royal Artillery.	127	189 1,488·2	1 7·87	9 70·87	12·02 94·65	1 7·9	... ...	1 7·87	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Fort Fulta, 1 month; Calcutta, 11 months.	9 0
3 „	129	121 938·0	2 15·50	3 23·20	7·99 61·94	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 7·75	12	Bombay, 9¾ months; Rangoon, 2 months; sea-voyage, ½ month.	3 2
4 „ „	132	123 931·8	... ...	2 15·15	5·41 40·98	... ...	1 7·6	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	10	Madras, 9½ months; Kurrachee, 2½ months; marching, ½ month.	9 0
8 „ „	135	265 1,963·0	2 14·81	7 51·85	12·31 91·19	... ...	2 14·8	... ...	... ...	... ...	1 7·41	... ...	... ...	... ...	... ...	... ...	...	Delhi, 11½ months; Bombay, ½ month.	10 2
9 „ „	125	254 2,032·0	1 8·00	5 40·00	13·80 110·40	... ...	8 64·0	... ...	1 8·00	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Fort Chingrikhal, 1 month; Fort Allahabad, 11 months.	2 0
12 „ „	90	99 1,100·0	2 22·22	1 11·11	6·69 74·33	... ...	4 44·4	... ...	1 11·11	... ...	... ...	... ...	... ...	1 11·11	... ...	... ...	12	Campbellpore, 12 months.	3 0
13 „ „	145	139 958·6	1 6·90	14 96·55	6·91 47·66	... ...	... ...	... ...	... ...	... ...	1 6·90	... ...	... ...	... ...	... ...	... ...	...	Aden, 12 months.	11 1½
24 „ „	125	142 1,136·0	1 8·00	3 24·00	9·35 74·80	... ...	2 16·0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Bombay, 12 months.	3 0
26 „ „	138	181 1,311·6	... ...	9 65·22	16·78 121·59	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Roorkee, 1½ months; Practice Camp, Pur, ¾ month; Aden, 9½ months; marching, ¾ month.	3 2
5 Company, Southern Division.	130	253 1,946·2	4 30·77	2 15·38	17·76 136·62	... ...	8 61·5	... ...	2 15·38	... ...	... ...	... ...	... ...	... ...	1 7·69	1 7·69	...	Agra, 11½ months; Bombay, ½ month; marching, ½ month.	10 2
7 „ „	131	164 1,251·9	1 7·63	5 38·17	15·68 119·69	... ...	3 22·9	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Quetta, 12 months.	12 1½
9 „ „	130	168 1,292·3	1 7·69	5 38·46	10·76 82·77	... ...	2 15·4	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Aden, 2¾ months; Roorkee, 8¾ months; marching, ½ month.	10 2
11 „ „	124	143 1,153·2	3 24·19	10 80·65	13·26 106·94	... ...	4 32·3	... ...	2 16·13	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Rangoon, 12 months.	8 1½
18 „ „	122	226 1,852·5	3 24·59	7 57·38	13·87 113·69	... ...	1 8·2	... ...	... ...	... ...	1 8·20	... ...	1 8·20	... ...	1 8·20	... ...	...	Kurrachee, 2 months; Ferozepore, 10 months.	8 1½
21 „ „	153	110 719·0	1 6·54	9 58·82	11·12 72·68	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Aden, 12 months.	8 1½
23 „ „	133	151 1,135·3	2 15·04	5 37·59	9·77 73·46	... ...	1 7·5	... ...	1 7·52	... ...	... ...	... ...	... ...	... ...	... ...	... ...	10	Bombay, 12 months.	3 3
24 „ „	90	135 1,500·0	2 22·22	1 11·11	7·73 85·89	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 11·11	...	Mooltan, 11½ months; marching, ½ month.	10 2
28 „ „	137	166 1,211·7	1 7·30	2 14·60	15·29 111·61	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Quetta, 12 months.	14 2
33 „ „	127	171 1,346·5	5 39·37	2 15·75	12·82 100·94	... ...	7 55·1	... ...	1 7·87	... ...	... ...	... ...	1 7·87	1 7·87	1 7·87	... ...	...	Rawalpindi, 3½ months; Thobba, 4½ months; Peshawar, 4½ months.	1 4

TABLE XIV —*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			Y. M
No. 4 Company, Western Division.	137	146 1,065·7	... ...	7 51·09	11·87 86·64	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Roorkee, 11 months; Practice Camp, Pur, 1 month.	3
„ 5 „ „	121	182 1,504·1	1 8·26	3 24·79	11·78 97·36	... ...	8 66·1	... ...	1 8·26	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Fort Attock, 3½ months; Rawalpindi, 8½ months; Detachment, Thobha, 4 months.	5
„ 7 „ „	91	85 934·1	2 21·98	3 32·97	7·50 80·22	... ...	4 44·0	... ...	2 21·98	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Secunderabad, 12 months.	3
„ 9 „ „	84	169 2,011·9	3 35·71	6 71·43	13·35 158·93	1 11·9	4 47·6	1 11·90	1 11·90	... ...	... ...	1 11·90	... ...	... ...	... ...	... ...	...	Jhansi, 11½ months; Practice Camp, Palipahari, ½ month.	3
„ 11 „ „	130	143 1,100·0	... ...	2 15·38	4·89 37·62	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Kurrachee, 10 months; Madras, 2 months.	10
„ 16 „ „	126	300 2,381·0	7 55·56	6 47·62	13·38 106·19	... ...	6 47·6	... ...	1 7·94	1 7·94	... ...	... ...	... ...	... ...	3 23·81	2 15·87	...	Barrackpore, 11 months; Fort Chingrikhal, 1 month.	10
„ 18 „ „	117	173 1,478·6	... ...	9 76·92	13·06 111·62	... ...	3 25·6	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Rangoon, 10½ months; Bombay, 1½ months; sea-voyage, ½ month.	3
„ 22 „ „	135	157 1,163·0	... ...	9 66·67	13·82 102·37	... ...	2 14·8	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	12	Roorkee, 11½ months; Practice Camp, Pur, ½ month.	12
TOTAL .	11,860	17,397 1,466·9	244 20·57	449 37·80	1,126·08 94·95	10 ·8	369 31·1	8 ·67	100 8·43	9 ·76	6 ·51	12 1·01	7 ·59	8 ·67	21 1·77	18 1·52			
H. COMPANY, ROYAL ENGINEERS.	86	50 581·4	3 34·88	1 11·63	2·29 26·63	1 11·6	... ...	1 11·63	... ...	... ...	... ...	... ...	... ...	... ...	... ...	2 23·26	13	Fort Fulta, Roorkee, Bangalore, Rangoon, Pombay, and Kirkee.	30
INFANTRY.																			
2nd Royal Scots	931	1,648 1,770·1	15 16·11	48 51·56	110·72 118·93	... ...	3 3·2	... ...	2 2·15	... ...	4 4·30	... ...	1 1·07	1 1·07	3 3·22	... ...	183	Mandalay, 12 months.	5
1st Royal West Surrey Regiment.	704	902 1,281·2	14 19·89	17 24·15	70·71 100·44	... ...	74 105·1	... ...	8 11·36	... ...	... ...	... ...	... ...	... ...	3 4·26	1 1·42	120	Umballa, 2½ months; Dagshai, 4½ months; Jullundur, ½ month; marching, ½ month; (on North-Western Frontier Field Service, 4½ months).	2
1st East Kent Regiment.	649	895 1,379·0	27 41·60	37 57·01	62·80 96·76	... ...	65 100·2	... ...	18 27·73	1 1·54	3 4·62	... ...	... ...	... ...	1 1·54	1 1·54	142	Peshawar, 4½ months; Cherat, 2½ months; (on North-Western Frontier Field Service, 5 months); Detachments, Peshawar, 7½ months; Cherat, 3 months.	10
1st Royal Fusiliers.	940	1,672 1,778·7	20 21·28	29 30·85	111·99 119·14	... ...	32 34·0	... ...	12 12·77	... ...	1 1·06	... ...	1 1·06	... ...	2 2·13	1 1·06	109	Mhow, 12 months; Detachments, Neemuch, 3½ months; Nasirabad, 3½ months; Indore, 12 months.	10
1st Norfolk Regiment.	915	1,541 1,684·2	17 18·58	30 32·79	110·61 120·89	4 4·4	43 47·0	2 2·19	12 13·11	... ...	... ...	... ...	... ...	... ...	1 1·09	1 1·09	120	Allahabad, 12 months; Detachment, Cawnpore, 3½ months.	8

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.								Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.		Y. M.
Devonshire Regiment.	755	1,082 1,433·1	11 14·57	18 23·84	76·47 101·28	... ...	24 31·8	... ...	5 6·62	... ...	... ...	1 1·32	1 1·32	1 1·32	1 1·32	... ...	185	Peshawar, 2⅔ months; Jullundur, 5⅔ months; (on North-Western Frontier Field Service, 4 months); Wing, Peshawar, 3⅔ months; Detachment, Dalhousie, 12 months; Cherat, 1⅓ months.	5 0
1 Suffolk Regiment.	905	1,464 1,617·7	10 11·05	45 49·72	111·29 122·97	... ...	17 18·8	... ...	6 6·63	... ...	... ...	1 1·10	... ...	... ...	2 2·21	... ...	68	Rangoon, 12 months; Detachment, Port Blair, 12 months.	6 10
Somersetshire Light Infantry.	928	1,279 1,378·2	25 26·94	30 32·33	85·66 92·31	... ...	29 31·2	... ...	8 8·62	1 1·08	1 1·08	3 3·23	1 1·08	2 2·16	... ...	... ...	148	Meean Meer, 7 months; Peshawar, 3⅔ months; Rawalpindi, ⅓ month; (on North-Western Frontier Field Service, 1⅓ month); Detachments, Cherat, 1 month; Dalhousie, 12 months; Fort Lahore, 7 months.	4 0
t East Yorkshire Regiment.	987	1,316 1,333·3	12 12·16	45 45·59	93·03 94·26	3 3·0	12 12·2	2 2·03	5 5·07	... ...	... ...	1 1·01	... ...	... ...	1 1·01	2 2·03	120	Belgam, 12 months; Detachments, Ahmednagar, 7⅔ months; Satara, 5⅓ months.	2 1
t Bedfordshire Regiment.	966	1,951 2,019·7	22 22·77	20 20·70	119·34 123·54	... ...	40 41·4	... ...	12 12·42	1 1·04	... ...	1 1·04	... ...	... ...	2 2·07	2 2·07	136	Umballa, 5 months; Solon, 4 months; Meean Meer, 3 months; Wings, Ferozepore, 3 months; Umballa, 4 months; Meean Meer, 2 months; Detachments, Dagshai, 4 months; Fort Lahore, 5 months.	7 0
ed Royal Irish Regiment.	848	1,900 2,240·6	18 21·23	36 42·45	116·69 137·61	... ...	18 21·2	... ...	4 4·72	1 1·18	1 1·18	... ...	1 1·18	1 1·18	4 4·72	3 3·54	159	Jubbulpore, 7⅔ months; Rawalpindi, 2⅔ months; (on North-Western Frontier Field Service, 1⅔ month); Detachments, Saugor, 12 months; Fort Attock, 2⅔ months.	12 11
nd Yorkshire Regiment.	769	1,268 1,648·9	9 11·70	43 55·92	89·41 116·27	... ...	15 19·5	... ...	2 2·60	... ...	... ...	... ...	... ...	... ...	... ...	... ...	176	Bareilly, 2⅔ months; Ranikhet, 5⅓ months; Jullundur, 1 month; marching, ⅓ month; (on North-Western Frontier Field Service, 3 months).	7 11
nd Lancashire Fusiliers.	919	1,238 1,347·1	13 14·15	13 14·15	110·59 120·34	... ...	25 27·2	... ...	6 6·53	... ...	1 1·09	... ...	1 1·09	... ...	1 1·09	2 2·18	149	Quetta, 12 months.	16 2
st Royal Scots Fusiliers.	777	1,077 1,386·1	14 18·02	13 16·73	68·68 88·39	... ...	22 28·3	... ...	12 15·44	... ...	... ...	... ...	... ...	1 1·29	... ...	... ...	43	Sialkot, 7⅓ months; (on North-Western Frontier Field Service, 4⅓ months); Wing, Ghora Dhaka, 2⅔ months; Detachment, Amritsar, 12 months.	1 2

TABLE XIV—*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.									Arrivals in India in 1897.	Stations occupied during the year.	
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.			
1st Cheshire Regiment.	930	1,487 1,598·9	14 15·05	36 38·71	119·29 128·27	1 1·1	40 43·0	... ...	7 7·53	... ...	... ...	... ...	... ...	... ...	2 2·15	2 2·15	239	Secunderabad, 12 months; Detachment, Wellington, 12 months.	Y. 10
1st Royal Welsh Fusiliers.	562	880 1,565·8	5 8·90	30 53·38	52·77 93·90	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 1·78	...	Aden, 10⅔ months; (left for England on 21st November 1897).	17
1st South Wales Borderers.	36	81 2,250·0	... ...	... ...	1·98 55·00	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	937	Meerut, ⅓ month; (arrived from Gibraltar on the 18th December 1897).	
2nd King's Own Scottish Borderers.	789	897 1,136·9	7 8·87	22 27·88	62·02 78·61	... ...	10 12·7	... ...	2 2·53	... ...	... ...	... ...	1 1·27	1 1·27	... ...	... ...	194	Rawalpindi, 6 months; Camp Gharial, 3½ months; (on North-Western Frontier Field Service, 2⅔ months); Detachments, Cawnpore, 1 month; Fort Attock, 3 months.	7
1st Scottish Rifles	942	1,539 1,633·8	8 8·49	53 56·26	106·12 112·65	... ...	9 9·6	... ...	4 4·25	... ...	... ...	... ...	... ...	... ...	... ...	... ...	140	Shahjahanpur, 1⅓ month; Bareilly, 3½ months; Chaubuttia, 6 months; Lucknow, 1 month; marching, ½ month.	3
2nd Royal Inniskilling Fusiliers.	775	1,404 1,811·6	11 14·19	23 29·68	107·90 139·23	... ...	39 50·3	... ...	8 10·32	... ...	... ...	... ...	... ...	... ...	1 1·29	1 1·29	59	Meerut, 2⅔ months; Chakrata, 5 months; Ferozepore, 1 month; Peshawar, ⅔ month,; marching, ½ month; (on North-Western Frontier Field Service, 2⅔ months).	9
1st Gloucestershire Regiment.	786	1,119 1,423·7	3 3·82	25 31·81	78·67 100·09	1 1·3	1 1·3	1 1·27	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1,022	Calcutta, 10 months; (arrived from Egypt on the 25th February 1897); Detachment, Dum-Dum, 7 months.	0 1
1st East Lancashire Regiment.	801	1,133 1,414·5	8 9·99	35 43·70	92·95 116·04	... ...	25 31·2	... ...	... ...	... ...	... ...	1 1·25	... ...	... ...	... ...	... ...	130	Thayetmyo, 10⅓ months; (left for England on 9th November 1897); Detachment, Meiktila, 10½ months.	17
2nd East Lancashire Regiment.	160	329 2,056·3	2 12·50	... ...	13·27 82·94	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 6·25	... ...	374	Lucknow, 2⅓ months; (arrived from Aldershot on 15th October 1897).	0
1st East Surrey Regiment.	959	2,117 2,207·5	27 28·15	47 49·01	167·48 174·64	2 2·1	43 44·8	2 2·09	12 12·51	... ...	... ...	... ...	1 1·04	2 2·09	2 2·09	4 4·17	...	Jhansi, 12 months; Detachments, Nowgong, 12 months; Agra, 2 months; Fatehgarh, 3½ months.	12 11
1st Duke of Cornwall's Light Infantry.	944	1,199 1,270·1	13 13·77	27 28·60	95·17 100·82	... ...	28 29·7	... ...	8 8·47	... ...	... ...	... ...	... ...	... ...	2 2·12	... ...	100	Lucknow, 8⅔ months; Rawalpindi, 3 months; (on North-Western Frontier Field Service, ⅔ month); Detachments, Fatehgarh, 1⅓ month; Cawnpore, 1⅓ months; Ranikhet, 6 months.	9 10
2nd Border Regiment.	976	947 970·3	10 10·25	17 17·42	68·83 70·52	... ...	23 23·6	... ...	5 5·12	... ...	1 1·02	... ...	... ...	1 1·02	1 1·02	... ...	94	Quetta, 12 months.	7 10

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.								Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.		Y. M.
Royal Sussex Regiment.	880	1,147 1,303·4	16 18·18	27 30·68	87·09 98·97	1 1·1	19 21·6	1 1·14	5 5·68	... ...	... ...	3 3·41	1 1·14	2 2·27	1 1·14	... ...	124	Fyzabad, 9 months; Peshawar, 2½ months; (on North-Western Frontier Field Service, ½ month); Wing, Fort Jamrud, 2½ months.	12 0
Hampshire Regiment.	981	1,505 1,534·1	5 5·10	29 29·56	75·29 76·75	... ...	4 4·1	... ...	1 1·02	... ...	1 1·02	... ...	... ...	... ...	... ...	... ...	163	Mooltan, 12 months; Detachment, Dalhousie, 12 months.	11 11
South Staffordshire Regiment.	1,022	1,027 1,004·9	9 8·81	24 23·48	70·68 69·16	... ...	19 18·6	... ...	6 5·87	... ...	... ...	... ...	... ...	... ...	... ...	... ...	199	Wellington, 9½ months; Thayetmyo, 2 months; sea-voyage, ½ month; Detachments, Meiktila, 2 months; Mallapuram, 12 months; Calicut, 12 months; Cannanore, 12 months.	2 2
Dorsetshire Regiment.	750	946 1,261·3	20 26·67	64 85·33	82·65 110·20	8 10·7	35 46·7	7 9·33	8 10·67	... ...	... ...	1 1·33	... ...	... ...	... ...	1 1·33	150	Bangalore, 7½ months; Rawalpindi, ½ month; Peshawar, 1½ month; marching, ½ month; (on North-Western Frontier Field Service, 2½ months); Detachment, Cherat, 1 month.	4 3
South Lancashire Regiment.	900	1,807 2,007·8	12 13·33	14 15·56	106·53 118·37	1 1·1	13 14·4	1 1·11	5 5·56	1 1·11	... ...	1 1·11	... ...	... ...	... ...	1 1·11	262	Kamptee, 12 months; Detachment, Jubbulpore, 4½ months.	2 10
Welsh Regiment.	875	1,544 1,764·6	13 14·86	53 60·57	117·62 134·42	... ...	10 11·4	... ...	4 4·57	... ...	1 1·14	... ...	1 1·14	... ...	1 1·14	2 2·29	148	Bellary, 12 months; Wing, Madras, 12 months.	5 3
Royal Highlanders.	972	1,098 1,129·6	14 14·40	29 29·84	88·88 91·44	... ...	61 62·8	... ...	11 11·32	... ...	... ...	... ...	... ...	... ...	2 2·06	... ...	119	Umballa, 4½ months; Subathu, 7½ months; marching, ½ month; Detachments, Jutogh, 9 months; Dagshai, 5 months.	1 10
Oxfordshire Light Infantry.	725	1,204 1,660·7	10 13·79	51 70·34	81·03 111·77	... ...	6 8·3	... ...	1 1·38	1 1·38	... ...	... ...	... ...	2 2·76	1 1·38	... ...	227	Bareilly, 1½ month; Ferozepore, 6½ months; Peshawar, ½ month; (on North-Western Frontier Field Service, 3½ months); Detachment, Dalhousie, 12 months.	11 9
1 Essex Regiment.	916	1,038 1,133·2	18 19·65	28 30·57	76·50 83·52	... ...	26 28·4	... ...	11 12·01	... ...	... ...	1 1·09	... ...	... ...	... ...	5 5·46	169	Lucknow, 11½ months; Shwebo, ½ month; sea-voyage, ½ month. Detachment, Ranikhet, 6 months.	5 2
1 Derbyshire Regiment.	746	1,157 1,550·9	11 14·75	35 46·92	80·43 107·82	... ...	11 14·7	... ...	8 10·72	... ...	... ...	... ...	... ...	... ...	... ...	1 1·34	129	Sitapur, 1 month; Bareilly, 7½ months; (on North-Western Frontier Field Service, 3½ months; Wing, Benares, 1 month; Detachment, Ranikhet, 6 months.	15 2

TABLE XIV —*continued.*

STATISTICS OF REGIMENTS.

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.								Arrivals in India in 1897.	Stations occupied during the year.	Y.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.		
1st Northamptonshire Regiment.	707	976 1,380·5	21 29·70	33 46·68	76·60 108·35	3 4·2	32 45·3	2 2·83	12 16·97	... ...	1 1·41	1 1·41	1 1·41	1 1·41	2 2·83	1 1·41	103	Secunderabad, 7½ months; Rawalpindi, ½ month; Peshawar, ½ month; marching, ½ month; (on North-Western Frontier Field Service, 3½ months).	5
1st Royal West Kent Regiment.	621	927 1,492·8	24 38·65	13 20·93	72·62 116·94	... ...	45 72·5	... ...	20 32·21	... ...	... ...	... ...	... ...	... ...	2 3·22	1 1·61	140	Meerut, 2 months; Peshawar, 5 months; (on North-Western Frontier Field Service, 5 months). Detachment, Cherat, 5½ months; Delhi, 1½ month.	5
2nd King's Own Yorkshire Light Infantry.	898	1,619 1,802·9	21 23·39	40 44·54	95·88 106·77	2 2·2	25 27·8	1 1·11	12 13·36	... ...	... ...	1 1·11	1 1·11	... ...	... ...	4 4·45	223	Nasirabad, 8½ months; Umballa, ½ month; Rawalpindi, 2½ months; (on North-Western Frontier Field Service, ½ month); Detachment, Neemuch, 8½ months.	10
1st Shropshire Light Infantry.	867	1,589 1,832·8	65 74·97	47 54·21	109·45 126·24	66 76·1	54 62·3	41 47·29	14 16·15	... ...	1 1·15	2 2·31	1 1·15	... ...	1 1·15	2 2·31	233	Calcutta, 2 months; Sitapur, 10 months; Wing, Benares, 11 months.	3
2nd Middlesex Regiment.	948	1,661 1,752·1	13 13·71	25 26·37	90·84 95·82	... ...	24 25·3	... ...	7 7·38	... ...	... ...	2 2·11	... ...	... ...	... ...	2 2·11	46	Ahmednagar, 4¾ months; Bombay, 7½ months; Detachments, Deesa, 7½ months; Satara, 4½ months; Kirkee, 4½ months; Ahmedabad, 7½ months; Deolali, 7½ months	17
1st Wiltshire Regiment.	1,016	2,242 2,206·7	10 9·84	38 37·40	91·81 90·36	1 1·0	9 8·9	1 ·98	5 4·92	... ...	... ...	1 ·98	... ...	... ...	... ...	1 ·98	...	Kurrachee, 12 months; Detachments, Hyderabad, 9½ months; Bangalore, 4½ months.	2
2nd Manchester Regiment.	861	1,177 1,307·0	14 16·26	19 22·07	76·73 89·12	... ...	4 4·6	... ...	1 1·16	... ...	... ...	... ...	1 1·16	1 1·16	3 3·48	2 2·32	27	Dinapore, 10 months; Aden, 1½ month; marching, ½ month; Detachment, Darjeeling, 12 months.	15
1st North Staffordshire Regiment.	161	205 1,273·3	8 49·69	... ...	9·76 60·62	... ...	51 316·8	... ...	8 49·69	... ...	... ...	... ...	... ...	... ...	... ...	... ...	969	Umballa, 2 months; (arrived from Egypt on the 1st November 1897).	0
2nd York and Lancaster Regiment.	808	1,570 1,043·1	56 69·31	8 9·90	97·80 121·04	... ...	165 204·2	... ...	45 55·69	... ...	... ...	3 3·71	... ...	1 1·24	2 2·48	2 2·48	1,035	Agra, 10½ months; (arrived from Mauritius and South Africa on the 21st February 1897).	0
2nd Durham Light Infantry.	890	1,132 1,271·9	7 7·87	49 55·06	73·13 82·17	1 1·1	23 25·8	... ...	3 3·37	... ...	... ...	... ...	... ...	... ...	... ...	... ...	7	Poona, 12 months.	11
2nd Highland Light Infantry.	639	1,045 1,635·4	11 17·21	35 54·77	68·09 106·56	... ...	13 20·3	... ...	3 4·69	... ...	... ...	2 3·13	1 1·56	... ...	2 3·13	2 3·13	...	Cawnpore, 7½ months; (on North-Western Frontier Field Service, 4½ months); Detachment, Fatehgarh, 7 months.	13
2nd Seaforth Highlanders.	65	75 1,153·8	... ...	7 107·69	7·19 110·62	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...	Ferozepore, 1½ month; (left for England on the 12th February 1897).	17

CORPS.	Average annual strength.	Admissions and ratio per 1,000.	Deaths and ratio per 1,000.	Invalids and ratio per 1,000.	Constantly sick and ratio per 1,000.	Admissions and admission-rates.		Deaths and death-rates.								Arrivals in India in 1897.	Stations occupied during the year.	Years of service in India.
						Cholera.	Enteric Fever.	Cholera.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Hepatic Abscess.		Y. M.
Gordon Highlanders.	681	638 936·9	4 5·87	5 7·34	46·10 67·69	... ...	7 10·3	... ...	... ...	... ...	1 1·47	... ...	1 1·47	... ...	1 1·47	... ...	120	Rawalpindi, 4⅔ months; Kuldunnah, 2⅔ months; Peshawar, ⅓ month; (on North-Western Frontier field service, 4⅓ months).	5 11½
1 Royal Irish Rifles.	904	1,269 1,403·8	9 9·96	28 30·97	77·36 85·58	1 1·1	11 12·2	1 1·11	2 2·21	... ...	... ...	1 1·11	1 1·11	... ...	... ...	1 1·11	...	Poona, 12 months.	3 1
Royal Irish Fusiliers.	884	1,073 1,213·8	9 10·18	38 42·99	73·91 83·61	... ...	1 1·1	... ...	1 1·13	... ...	1 1·13	... ...	1 1·13	1 1·13	... ...	2 2·26	80	Shwebo, 11⅔ months; (left for Egypt on the 19th December 1897). Detachments, Bhamo, 11⅔ months; Bernardmyo, 11⅓ months.	14 2
d Connaught Rangers.	796	1,458 1,831·7	27 33·92	12 15·08	87·60 110·05	... ...	42 52·8	... ...	15 18·84	... ...	... ...	5 6·28	... ...	... ...	... ...	... ...	1,027	Meerut, 10⅓ months; (arrived from Egypt on the 13th February 1897). Detachment, Delhi, 10⅓ months.	0 10⅓
d Argyll and Sutherland Highlanders.	581	988 1,700·5	11 18·93	11 18·93	60·17 103·56	... ...	18 31·0	... ...	5 8·61	... ...	... ...	1 1·72	1 1·72	... ...	1 1·72	... ...	170	Nowshera, 6 months; (on North-Western Frontier Field Service, 6 months); Detachments, Fort Attock, 6 months; Cherat, 4 months.	6 0
nd Royal Munster Fusiliers.	925	1,430 1,545·9	25 27·03	37 40·00	77·15 83·41	... ...	4 4·3	... ...	... ...	2 2·16	.. ...	2 2·16	2 2·16	1 1·08	4 4·32	7 7·57	87	Dum-Dum, 12 months; Detachments, Barrackpore, 12 months; Dinapore, 2 months.	13 9
nd Royal Dublin Fusiliers.	368	571 1,551·6	4 10·87	28 76·09	34·84 94·67	... ...	5 13·6	... ...	1 2·72	... ...	... ...	... ...	1 2·72	... ...	... ...	... ...	...	Bombay, 4⅓ months; (left for Malta on the 19th May 1897); Detachments, Deesa, 4⅓ months; Ahmedabad, 4⅓ months.	11 2½
3rd Rifle Brigade	675	957 1,417·8	16 23·70	6 8·89	57·39 85·02	... ...	23 34·1	... ...	5 7·41	... ...	1 1·48	... ...	1 1·48	2 2·96	2 2·96	... ...	...	Rawalpindi, 6 months; Umballa, 1⅔ months; marching, ⅓ month; (on North-Western Frontier Field Service, 4 months); Wing, Camp Thobba, 6 months.	8 10
TOTAL	43,715	67,440 1,542·7	818 18·71	1,572 35·96	4,555·56 104·21	95 2·2	1,397 32·0	62 1·42	377 8·62	8 ·18	19 ·43	35 ·80	23 ·53	21 ·48	55 1·26	58 1·33			
Garrison Staff and Departments.	3,706	4,267 1,151·4	23 6·21	57 15·38	356·08 96·08	... ...	2 ·5	... ...	1 ·27	... ...	... ...	1 ·27	3 ·81	1 ·27	1 ·27	2 ·54	...		
Men of various corps marching.	42	45 1,071·4	... ...	... ...	1·11 26·43	... ...	5 119·0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	...		
GRAND TOTAL	64,531	96,824 1,500·4	1,214 18·81	2,258 34·99	6,541·90 101·38	116 1·8	2,050 31·8	80 1·24	556 8·62	17 ·26	27 ·42	51 ·79	37 ·57	33 ·51	82 1·27	86 1·33			

N.B.—This table excludes statistics for periods of field service, as such statistics cannot be obtained by corps.

TABLE XV.

A.—STRENGTH, ADMISSIONS from ALL CAUSES, ADMISSIONS from ENTERIC FEVER, of the Army of India in 1897, in relation to AGE and LENGTH of RESIDENCE in INDIA.

	By Age.						By length of residence.						
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 and upwards.	Under 1 year.	1 and less than 2.	2 and less than 3.	3 and less than 4.	4 and less than 5.	5 and less than 10.	10 years and upwards.
Strength	1,971	32,741	21,698	4,329	1,324	401	11,568	11,401	11,153	9,920	7,897	8,737	1,778
Per cent. of total	3	52	35	7	2	1	19	18	18	16	13	14	3
1892-96	3	51	36	8	2	1	17	18	17	15	13	16	3
Admissions from all causes	2,337	59,302	28,395	2,766	790	204	21,244	18,319	17,277	14,333	10,261	11,175	1,185
Admissions from Enteric Fever	62	1,483	396	28	3	...	877	417	265	180	149	81	3
All causes per 1,000	1,185·7	1,811·2	1,308·6	638·9	596·7	508·7	1,836·4	1,606·8	1,549·1	1,444·9	1,299·4	1,279·0	666·5
Enteric Fever per 1,000	31·5	45·3	18·3	6·5	2·3	...	75·8	36·6	23·8	18·1	18·9	9·3	1·7
Liability to Enteric Fever	30·32	43·60	17·61	6·26	2·21	...	41·15	19·87	12·92	9·83	10·26	5·05	·92
Enteric Fever per cent. of all causes	2·65	2·50	1·39	1·01	·38	...	4·13	2·28	1·53	1·26	1·45	·72	·25

Note.—Marching returns and returns wherein the classification by age and service was omitted have been excluded. Details of age and service of men admitted for enteric fever on the march are not available.

B.—CHANGE of PERSONNEL, YOUTHFULNESS, RECENT ARRIVAL, and MARRIAGE, in relation to VENEREAL DISEASE and ENTERIC FEVER.

Year.	Arrived in India.*		Year.	Men.							
				Per cent. of Strength.			Strength.	Ratio per 1,000.			Ratio per cent. of total admission.	
				Age.	Length of residence.			Admissions.				
	Men.	Women.		Under 25 years.	Under 5 years.	Married. ‡		All causes.	Venereal Diseases.	Enteric Fever.	Venereal Diseases.	Enteric Fever.
1870-71	8,805	826	1870	...	...	...	54,578	1,645·4	191·2	3·1	11·62	·19
1871-72	9,134	920	1871	40	...	11·19	56,806	1,449·6	196·8	3·6	13·58	·25
1872-73	8,271	809	1872	39	...	11·32	58,870	1,497·0	179·0	3·8	11·96	·25
1873-74	8,680	816	1873	39	...	11·26	58,769	1,328·1	166·7	3·6	12·55	·27
1874-75	7,840	673	1874	38	...	11·10	59,308	1,357·7	192·7	4·1	14·20	·30
1875-76	7,508	752	1875	36	...	10·80	58,409	1,337·8	205·1	2·8	15·33	·21
1876-77	8,170	591	1876	33	...	10·37	57,858	1,361·5	189·9	4·6	13·95	·34
1877-78	9,113	482	1877	33	56	9·70	57,260	1,257·3	208·5	4·1	16·59	·32
1878-79	13,113	575	1878	35	60	7·59	56,475	1,651·3	271·3	8·5	16·43	·51
1879-80	13,342	612	1879	39	61	6·63	59,082	1,871·2	234·8	8·0	12·55	·43
1880-81	13,165	664	1880	41	65	6·36	59,717	1,754·2	249·7	7·9	14·23	·45
1881-82	9,895	349	1881	43	70	5·94	58,728	1,604·6	260·5	5·6	16·23	·35
1882-83	9,748	325	1882	41	72	5·43	57,269	1,444·9	265·2	6·2	18·35	·43
1883-84	12,525	433	1883	41	75	5·20	55,525	1,335·7	270·3	7·7	20·23	·58
1884-85	11,822	393	1884	45	75	5·05	54,996	1,513·4	293·9	11·7	19·42	·77
1885-86	17,766	508	1885	48	73	4·23	56,967	1,532·7	342·7	11·2	22·36	·73
1886-87	11,645	372	1886	52	75	3·90	61,015	1,513·9	389·5	18·1	25·73	1·20
1887-88	11,729	459	1887	52	73	3·84	63,515	1,369·7	361·2	12·7	26·37	·93
1888-89	12,407	506	1888	50	76	3·65	68,887	1,381·7	370·6	13·6	26·82	·99
1889-90	12,270	532	1889	49	78	3·60	69,266	1,498·0	481·5	22·9	32·14	1·53
1890-91	14,046	542	1890	50	80	3·70	67,823	1,520·2	503·5	18·5	33·12	1·22
1891-92	15,456	529	1891	51	79	3·36	67,030	1,379·1	400·7	20·4	29·06	1·48
1892-93	15,894	540	1892	51	80	3·29	68,137	1,517·3	409·9	22·1	27·01	1·46
1893-94	15,090	482	1893	53	79	3·29	70,091	1,414·9	466·0	20·0	32·94	1·41
1894-95	15,957	517	1894	54	81	...†	71,082	1,508·0	511·4	20·9	33·91	1·38
1895-96	14,346	654	1895	55	83	...	71,031	1,461·8	522·3	26·3	35·73	1·80
1896-97	14,805	545	1896	56	82	...	70,484	1,386·7	511·6	25·5	36·89	1·84
1897-98	16,227	543	1897	55	84	...	68,395	1,556·9	485·7	32·4	31·20	2·08

* In ordinary years the departures *plus* the deaths nearly balance the arrivals. † Return abolished. ‡ On the 1st May of each year.

TABLE XVI.

RELATION of MORTALITY to AGE and LENGTH of RESIDENCE in INDIA.

A.—AGE.

(a) Died per 1,000.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	7·10	12·74	4·98	2·77	...	...
Cholera	1·01	1·47	·74	1·16	...	...
Dysentery	·51	1·59	1·11	·69	...	...
Intermittent and Remittent Fevers	...	·67	·69	·23	3·02	2·49
Alcoholism	...	...	·05	...	...	...
Tubercle of the lungs	...	·55	·55	·92	...	...
Nervous Diseases	·51	·46	·37	·46	...	2·49
Circulatory Diseases	...	·21	·74	1·16	4·53	7·48
Pneumonia	·51	·46	·60	·46	...	...
Other Respiratory Diseases	...	·06	·09	...	·76	...
Abscess of the liver	·51	1·01	1·66	1·85	4·53	4·99
Urinary Diseases	...	·15	·18	·69	·76	...
All Diseases	10·15	20·83	12·95	12·24	15·11	22·44
Heat-stroke	...	·82	·60	1·16	...	2·49
Suicide	...	·24	·14	·69	1·51	2·49
Other injuries	...	·82	·83	·46	...	...
All Causes	10·15	22·72	14·52	14·55	16·62	27·43

(b) Liability in percentages.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	26	46	18	10	...	...
Cholera	23	34	17	26	...	...
Dysentery	13	41	28	18	...	...
Intermittent and Remittent Fevers	...	9	10	3	43	35
Alcoholism	...	...	100	...	...	...
Tubercle of the lungs	...	27	27	46	...	...
Nervous Diseases	12	11	9	11	...	58
Circulatory Diseases	...	1	5	8	32	53
Pneumonia	25	23	30	23	...	...
Other Respiratory Diseases	...	7	10	...	84	...
Abscess of the liver	4	7	11	13	31	34
Urinary Diseases	...	8	10	39	43	...
All Diseases	11	22	14	13	16	24
Heat-stroke	...	16	12	23	...	49
Suicide	...	5	3	14	30	49
Other injuries	...	39	39	22	...	...
All Causes	10	21	14	14	16	26

(c) Number of deaths.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	14	417	108	12	...	...
Cholera	2	48	16	5	...	...
Dysentery	1	52	24	3	...	...
Intermittent and Remittent Fevers	...	22	15	1	4	1
Alcoholism	...	...	1	...	...	...
Tubercle of the lungs	...	18	12	4	...	...
Nervous Diseases	1	15	8	2	...	1
Circulatory Diseases	...	7	16	5	6	3
Pneumonia	1	15	13	2	...	...
Other Respiratory Diseases	...	2	2	...	1	...
Abscess of the liver	1	33	36	8	6	2
Urinary Diseases	...	5	4	3	1	...
All Diseases	20	682	281	53	20	9
Heat-stroke	...	27	13	5	...	1
Suicide	...	8	3	3	2	1
Other injuries	...	27	18	2	...	...
All Causes	20	744	315	63	22	11

(d) Composition of 100 deaths at each age.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	70	56	34	19	...	...
Cholera	10	6	5	8	...	...
Dysentery	5	7	8	5	...	...
Intermittent and Remittent Fevers	...	3	5	2	18	9
Alcoholism	...	...	...	...	...	...
Tubercle of the lungs	...	2	4	6	...	...
Nervous Diseases	5	2	3	3	...	9
Circulatory Diseases	...	1	5	8	27	27
Pneumonia	5	2	4	3	...	...
Other Respiratory Diseases	...	...	1	...	5	...
Abscess of the liver	5	4	11	13	27	18
Urinary Diseases	...	1	1	5	5	...
All Diseases	...	...	...	...	...	...
Heat-stroke	...	4	4	8	...	9
Suicide	...	1	1	5	9	9
Other injuries	...	4	6	3	...	...
All Causes	100	100	100	100	100	100

(e) Number of deaths.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	14	417	108	12	...	...
Cholera	2	48	16	5	...	...
Abscess of the liver	1	33	36	8	6	2
Suicide	...	8	3	3	2	1
All Causes	20	744	315	63	22	11

(f) Percentage at each age to total number.

Causes of Death.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Enteric Fever	3	76	20	2	...	...
Cholera	3	68	23	7	...	...
Abscess of the liver	1	38	42	9	7	2
Suicide	...	47	18	18	12	6
All Causes	2	63	27	5	2	1

B.—LENGTH OF RESIDENCE IN INDIA.

(g) Died per 1,000.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	18·59	10·79	7·08	5·44	6·71	2·98	·56
Cholera	·95	1·14	2·96	·40	·76	·46	...
Dysentery	1·82	1·32	1·43	·60	1·27	1·26	·56
Intermittent and Remittent Fevers	·52	·44	·54	·91	·76	1·03	1·12
Alcoholism	...	...	...	·10	...	...	...
Tubercle of the lungs	·26	·26	·45	·30	1·14	1·26	...
Nervous Diseases	·43	·61	·18	·30	·38	·57	1·12
Circulatory Diseases	·26	·18	·36	·60	·51	1·26	3·94
Pneumonia	·78	·18	·45	·40	...	1·14	·56
Other Respiratory Diseases	·17	·09	...	·10	·13	...	...
Abscess of the liver	·80	1·40	1·26	·91	1·77	1·95	3·37
Urinary Diseases	·35	·09	·18	·10	·25	·11	1·12
All Diseases	26·19	17·45	16·68	10·99	14·56	14·31	15·75
Heat-stroke	2·25	·44	·54	·20	·25	·34	1·12
Suicide	·09	·18	·09	·40	·38	·34	1·69
Other injuries	·61	·61	·99	·50	·89	1·03	·56
All Causes	29·13	18·68	18·29	12·10	16·08	16·02	19·12

(h) Liability in percentages.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	36	21	14	10	13	6	1
Cholera	14	17	44	6	11	7	...
Dysentery	22	16	17	7	15	15	7
Intermittent and Remittent Fevers	10	8	10	17	14	19	21
Alcoholism	...	...	...	100	...	...	...
Tubercle of the lungs	7	7	12	8	31	34	...
Nervous Diseases	12	17	5	8	11	16	31
Circulatory Diseases	4	3	5	8	7	18	55
Pneumonia	22	5	13	11	...	32	16
Other Respiratory Diseases	35	18	...	20	27	...	...
Abscess of the liver	7	12	11	8	15	17	29
Urinary Diseases	16	4	8	5	11	5	51
All Diseases	23	15	14	9	13	12	14
Heat-stroke	44	9	11	4	5	7	22
Suicide	3	6	3	13	12	11	53
Other injuries	12	12	19	10	17	20	11
All Causes	23	15	14	9	12	12	15

(i) Number of deaths.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	215	123	79	54	53	26	1
Cholera	11	13	33	4	6	4	...
Dysentery	21	15	16	6	10	11	1
Intermittent and Remittent Fevers	6	5	6	9	6	9	2
Alcoholism	...	...	...	1	...	...	...
Tubercle of the lungs	3	3	5	3	9	11	...
Nervous Diseases	5	7	2	3	3	5	2
Circulatory Diseases	3	2	4	6	4	11	7
Pneumonia	9	2	5	4	...	10	1
Other Respiratory Diseases	2	1	...	1	1	...	...
Abscess of the liver	10	16	14	9	14	17	6
Urinary Diseases	4	1	2	1	2	1	2
All Diseases	303	199	186	109	115	125	28
Heat-stroke	26	5	6	2	2	3	2
Suicide	1	2	1	4	3	3	3
Other injuries	7	7	11	5	7	9	1
All Causes	337	213	204	120	127	140	34

(j) Composition of 100 deaths in each period of residence.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	64	58	39	45	42	19	3
Cholera	3	6	16	3	5	3	...
Dysentery	6	7	8	5	8	8	3
Intermittent and Remittent Fevers	2	2	3	7	5	6	6
Alcoholism	...	...	...	1	...	...	...
Tubercle of the lungs	1	1	2	2	7	8	...
Nervous Diseases	1	3	1	2	2	4	6
Circulatory Diseases	1	1	2	5	3	8	21
Pneumonia	3	1	2	3	...	7	3
Other Respiratory Diseases	1	...	...	1	1	...	...
Abscess of the liver	3	8	7	7	11	12	18
Urinary Diseases	1	...	1	1	2	1	6
All Diseases	...	...	...	...	...	...	...
Heat-stroke	8	2	3	2	2	2	6
Suicide	...	1	...	3	2	2	9
Other injuries	2	3	5	4	6	6	3
All Causes	100	100	100	100	100	100	100

(k) Number of deaths.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	215	123	79	54	53	26	1
Cholera	11	13	33	4	6	4	...
Abscess of the liver	10	16	14	9	14	17	6
Suicide	1	2	1	4	3	3	3
All Causes	337	213	204	120	127	140	34

(l) Percentage in each period of residence to total number.

Causes of Death.	Under 1 year.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Enteric Fever	39	22	14	10	10	5	...
Cholera	15	18	46	6	8	6	...
Abscess of the liver	12	19	16	10	16	20	7
Suicide	6	12	6	24	18	18	18
All Causes	29	18	17	10	11	12	3

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded.

TABLE XVII.

RELATION of INVALIDING to AGE and LENGTH of RESIDENCE in INDIA.

A.—AGE.

(a) Invalided per 1,000.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards
Dysentery	...	1·50	1·20	·69	·76	...
Intermittent and Remittent Fevers	1·52	2·93	1·98	3·23	3·02	4·99
Venereal Diseases	3·04	13·01	9·45	5·31	1·51	...
Debility	1·52	2·78	2·44	3·70	6·04	19·95
Rheumatism	1·01	1·28	1·15	·92	1·51	2·49
Tubercle of the lungs	2·54	2·66	1·61	·92	1·51	...
Mental Diseases	1·52	1·77	1·38	·69	·76	...
Epilepsy	·51	·49	·32	·46	...	...
Other Nervous Diseases	...	·52	·55	·69	1·51	...
Eye, ear, and nose Diseases	1·01	2·14	1·20	·23	...	...
Palpitation	...	1·92	·55	...	...	...
Valvular disease of the heart	1·01	1·71	1·20	·69	1·51	...
Other Circulatory Diseases	·51	·70	·92	·69	1·51	...
Respiratory Diseases	...	·70	·37	...	...	...
Hepatitis and Abscess of the liver	...	1·10	1·71	2·08	3·02	9·98
Locomotive Diseases	·51	1·68	·92	·23	...	2·49
Injuries	...	1·34	·78	·46	2·27	4·99
All Causes	15·73	42·52	30·88	22·18	28·70	57·36

(b) Liability in percentages.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Dysentery	...	36	29	17	18	...
Intermittent and Remittent Fevers	9	17	11	18	17	28
Venereal Diseases	9	40	29	16	5	...
Debility	4	8	7	10	17	55
Rheumatism	12	15	14	11	18	30
Tubercle of the lungs	27	29	17	10	16	...
Mental Diseases	25	29	23	11	12	...
Epilepsy	29	28	18	26	...	...
Other Nervous Diseases	...	16	17	21	46	...
Eye, ear, and nose Diseases	22	47	26	5	...	...
Palpitation	...	78	22	...	...	...
Valvular disease of the heart	17	28	20	11	25	...
Other Circulatory Diseases	12	16	21	16	35	...
Respiratory Diseases	...	65	35	..	...	...
Hepatitis and Abscess of the liver	...	6	10	12	17	56
Locomotive Diseases	9	29	16	4	...	43
Injuries	...	14	8	5	23	51
All Causes	8	22	16	11	15	29

(c) Number invalided.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards
Dysentery	...	49	26	3	1	...
Intermittent and Remittent Fevers	3	96	43	14	4	2
Venereal Diseases	6	426	205	23	2	...
Debility	3	91	53	16	8	8
Rheumatism	2	42	25	4	2	1
Tubercle of the lungs	5	87	35	4	2	...
Mental Diseases	3	58	30	3	1	...
Epilepsy	1	16	7	2	...	...
Other Nervous Diseases	...	17	12	3	2	...
Eye, ear, and nose Diseases	2	70	26	1	...	...
Palpitation	...	63	12	...	...	...
Valvular Disease of the heart	2	36	26	3	2	...
Other Circulatory Diseases	1	23	20	3	2	...
Respiratory Diseases	...	23	8	...	...	...
Hepatitis and Abscess of the liver	...	36	37	9	4	4
Locomotive Diseases	1	55	20	1	...	1
Injuries	...	44	17	2	3	2
All Causes	31	1,392	670	96	38	23

(d) Composition of 100 invalidings at each age.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Dysentery	...	4	4	3	3	...
Intermittent and Remittent Fevers	10	7	6	15	11	9
Venereal Diseases	19	31	31	24	5	...
Debility	10	7	8	17	21	35
Rheumatism	6	3	4	4	5	4
Tubercle of the lungs	16	6	5	4	5	...
Mental Diseases	10	4	4	3	3	...
Epilepsy	3	1	1	2	...	...
Other Nervous Diseases	...	1	2	3	5	...
Eye, ear, and nose Diseases	6	5	4	1	...	...
Palpitation	...	5	2	...	...	...
Valvular Disease of the heart	6	4	4	3	5	...
Other Circulatory Diseases	3	2	3	3	5	...
Respiratory Diseases	...	2	1	...	...	...
Hepatitis and Abscess of the liver	...	3	6	9	11	17
Locomotive Diseases	3	4	3	1	...	4
Injuries	...	3	3	2	8	9
All Causes	100	100	100	100	100	100

(e) Number invalided.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards
Intermittent and Remittent Fevers	3	96	43	14	4	2
Venereal Diseases	6	426	205	23	2	...
Debility	3	91	53	16	8	8
All Causes	31	1,392	670	96	38	23

(f) Percentage at each age to total number.

Causes of Invaliding.	Under 20.	20—25.	25—30.	30—35.	35—40.	40 and upwards.
Intermittent and Remittent Fevers	2	59	27	9	2	1
Venereal Diseases	1	64	31	3	...	...
Debility	2	51	30	9	4	4
All Causes	1	62	30	4	2	1

B.—LENGTH OF RESIDENCE IN INDIA.

(g) Invalided per 1,000.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Dysentery	1·04	1·05	1·52	1·11	1·39	1·72	·56
Intermittent and Remittent Fevers	·52	2·98	3·14	2·92	2·28	3·78	3·94
Venereal Diseases	5·06	11·49	13·72	14·52	10·89	8·24	3·94
Debility	1·64	2·46	3·32	3·63	2·41	3·09	7·31
Rheumatism	1·04	1·32	1·08	1·92	·38	1·37	1·69
Tubercle of the lungs	1·47	2·46	2·33	2·52	2·53	1·95	...
Mental Diseases	1·47	1·14	1·61	1·92	1·77	1·60	...
Epilepsy	·61	·26	·27	·81	·25	·34	...
Other Nervous Diseases	·52	·79	·36	·30	·76	·57	·56
Eye, ear, and nose Diseases	1·82	2·11	1·79	1·81	·89	1·03	...
Palpitation	·86	1·75	2·15	1·11	·76	·46	...
Valvular disease of the heart	2·16	·79	1·34	1·81	1·14	1·49	...
Other Circulatory Diseases	·52	·79	1·34	·40	1·14	·57	·56
Respiratory Diseases	·52	·53	·45	·40	·51	·69	...
Hepatitis and Abscess of the liver	·35	1·49	1·61	1·81	1·14	1·72	5·06
Locomotive Diseases	1·04	·96	1·68	2·22	1·39	·92	1·12
Injuries	1·38	2·02	·54	·91	·03	·80	1·12
All Causes	26·02	36·93	42·41	44·96	33·43	32·73	33·18

(h) Liability in percentages.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Dysentery	12	13	18	13	17	21	7
Intermittent and Remittent Fevers	3	15	16	15	12	19	20
Venereal Diseases	9	17	20	21	16	12	6
Debility	7	10	14	15	10	13	31
Rheumatism	12	15	12	22	4	16	19
Tubercle of the lungs	11	19	18	19	19	15	...
Mental Diseases	15	12	17	20	19	17	...
Epilepsy	24	10	11	32	10	13	...
Other Nervous Diseases	13	20	9	8	20	15	15
Eye, ear, and nose Diseases	19	22	19	19	9	11	...
Palpitation	12	25	30	16	11	6	...
Valvular disease of the heart	25	9	15	21	13	17	...
Other Circulatory Diseases	10	15	25	8	21	11	11
Respiratory Diseases	17	17	15	13	16	22	...
Hepatitis and Abscess of the liver	3	11	12	14	9	13	38
Locomotive Diseases	12	11	12	25	16	11	13
Injuries	19	27	7	12	9	11	15
All Causes	10	15	17	18	13	13	13

(i) Number invalided.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Dysentery	12	12	17	11	11	15	1
Intermittent and Remittent Fevers	6	34	35	29	18	33	7
Venereal Diseases	69	131	153	144	86	72	7
Debility	19	28	37	36	19	27	13
Rheumatism	12	15	12	19	3	12	3
Tubercle of the lungs	17	28	26	25	20	17	...
Mental Diseases	17	13	18	19	14	14	...
Epilepsy	7	3	3	8	2	3	...
Other Nervous Diseases	6	9	4	3	6	5	1
Eye, ear, and nose Diseases	21	24	20	18	7	9	...
Palpitation	10	20	24	11	6	4	...
Valvular Disease of the heart	25	9	15	18	9	13	...
Other Circulatory Diseases	6	9	15	4	9	5	1
Respiratory Diseases	6	6	5	4	4	6	...
Hepatitis and Abscess of the liver	4	17	18	18	9	15	9
Locomotive Diseases	12	11	12	22	11	8	2
Injuries	16	23	6	9	5	7	2
All Causes	301	421	473	446	264	286	59

(j) Percentage in each period of residence to total number.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Intermittent and Remittent Fevers	6	34	35	29	18	33	7
Venereal Diseases	69	131	153	144	86	72	7
Debility	19	28	37	36	19	27	13
All Causes	301	421	473	446	264	286	59

(f) Composition of 100 invalidings in each period of residence.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Dysentery	4	3	4	2	4	5	2
Intermittent and Remittent Fevers	2	8	7	7	7	12	12
Venereal Diseases	23	31	32	32	33	25	12
Debility	6	7	8	8	7	9	22
Rheumatism	4	4	3	4	1	4	5
Tubercle of the lungs	6	7	5	6	8	6	...
Mental Diseases	6	3	4	4	5	5	...
Epilepsy	2	1	1	2	1	1	...
Other Nervous Diseases	2	2	1	1	2	2	2
Eye, ear, and nose Diseases	7	6	4	4	3	3	...
Palpitation	3	5	5	2	2	1	...
Valvular Disease of the heart	8	2	3	4	3	5	...
Other Circulatory Diseases	2	2	3	1	3	2	2
Respiratory Diseases	2	1	1	1	2	2	...
Hepatitis and Abscess of the liver	1	4	4	4	3	5	15
Locomotive Diseases	4	3	3	5	4	3	3
Injuries	5	5	1	2	2	2	3
All Causes	100	100	100	100	100	100	100

(l) Percentage in each period of residence to total number.

Causes of Invaliding.	Under 1.	1 and less 2.	2 and less 3.	3 and less 4.	4 and less 5.	5 and less 10.	10 and upwards.
Intermittent and Remittent Fevers	4	21	22	18	11	20	4
Venereal Diseases	10	20	23	22	13	11	1
Debility	11	16	21	20	11	15	7
All Causes	13	19	21	20	12	13	3

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded.

TABLE XVIII.

STATISTICS OF OFFICERS.

A.—SICKNESS and MORTALITY among OFFICERS of the BRITISH ARMY in 1897. (From the medical returns of the army).

	Ratios per 1,000 of strength.						Actuals.					
	Bengal.	Punjab.	Madras.	Bombay.	Field.	India.	Bengal.	Punjab.	Madras.	Bombay.	Field.	India.
Strength	...	...	...	...	...	...	587	468	340	450	203	2,048
Invalids	56·2	68·4	105·9	97·8	...	70·8	33	32	36	44	...	145
Cases remaining from 1896	...	...	...	...	...	31·2	25	16	12	11	...	64
Admissions	814·3	948·7	970·6	817·8	1,389·2	928·7	478	444	330	368	282	1,902
luenza	23·9	...	14·7	2·2	...	9·8	14	...	5	1	...	20
olera	5·1	...	2·9	...	...	2·0	3	...	1	...	...	4
all-pox	...	6·4	...	2·2	...	2·0	...	3	...	1	...	4
teric Fever	35·8	42·7	26·5	31·1	93·6	40·5	21	20	9	14	19	83
ermittent Fever	195·9	267·1	170·6	188·9	344·8	221·2	115	125	58	85	70	453
mittent Fever	37·5	94·0	29·4	51·1	147·8	63·0	22	44	10	23	30	129
ple Continued Fever	42·6	32·1	147·1	68·9	49·3	64·0	25	15	50	31	10	131
bercle of the lungs	1·7	...	...	2·2	...	1·0	1	...	...	1	...	2
umonia	...	2·1	...	2·2	9·9	2·0	...	1	...	1	2	4
er Respiratory Diseases	13·6	15·0	8·8	6·7	34·5	13·7	8	7	3	3	7	28
sentery	35·8	25·6	35·3	28·9	172·4	45·4	21	12	12	13	35	93
rrhœa	37·5	42·7	26·5	37·8	103·4	43·5	22	20	9	17	21	89
patic Abscess	1·7	2·1	...	...	...	1·0	1	1	...	...	...	2
„ Congestion and Inflammation	23·9	17·1	17·6	40·0	44·3	26·9	14	8	6	18	9	55
nereal Diseases	13·6	21·4	23·5	13·3	14·8	17·1	8	10	8	6	3	35
Deaths	20·44	14·96	17·65	15·56	93·60	24·90	12	7	6	7	19	51
olera	5·11	...	...	...	...	1·46	3	...	...	...	...	3
all-pox	...	...	...	...	...	...	...	...	...	...	...	...
teric Fever	5·11	6·41	8·82	8·89	14·78	7·81	3	3	3	4	3	16
ermittent Fever	...	...	...	...	...	...	...	...	...	...	...	...
mittent Fever	...	2·14	2·94	...	...	·98	...	1	1	...	...	2
ple Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...
at-stroke	1·70	...	2·94	...	...	·98	1	...	1	...	...	2
culatory Diseases	...	...	...	...	...	...	...	...	...	...	...	...
bercle of the lungs	...	...	...	...	...	...	...	...	...	...	...	...
umonia	...	...	...	...	...	...	...	...	...	...	...	...
er Respiratory Diseases	...	...	...	...	...	...	...	...	...	...	...	...
sentery	...	2·14	2·94	...	...	·98	...	1	1	...	...	2
rrhœa	...	...	...	...	...	...	...	...	...	...	...	...
patic Abscess	1·70	2·14	...	...	...	·98	1	1	...	...	...	2
Deaths out of hospital	...	...	2·94	4·44	68·97	8·30	...	...	1	2	14	17

B.—CAUSES of DEATH among OFFICERS of the BRITISH and INDIAN ARMIES in 1897. (From a Statement issued by the ADJUTANT-GENERAL in INDIA.)

Armies.	Strength in India, whether on leave or not, on the 1st of July.	Strength in Europe or beyond sea on 1st July 1897, whether on furlough or sick leave.	In India.														Deaths in England and other countries.	Deaths at sea.	Grand Total.	Ratio per 1,000.
			Cholera.	Small-pox.	Enteric Fever.	Fever not defined.	Remittent Fever.	Simple Continued Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Total.				
ITISH	2,507	531	3	...	16	1	2	...	2	1	...	...	...	2	...	3	58*	11	1	70	23·04
DIAN	2,291	669	4	...	6	2	...	...	...	2	...	...	1	2	...	4	48	7	1	56	18·92

* Including 7 deaths not shown in medical returns.

TABLE XVIII—*continued.*

STATISTICS OF OFFICERS.

C.—CHOLERA by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of admissions from Cholera in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Meiktila	8	...	...	...	...	1	...	...	...	...	...	...	...	1	125·0	...	...
Group II.—Burma Inland	61	...	...	...	...	1	...	...	...	...	...	...	...	1	16·4	...	...
B																	
Allahabad	28	...	...	1	...	...	...	...	...	...	...	...	...	1	35·7	1	35·71
Lucknow	67	...	...	...	...	...	...	...	...	...	1	...	...	1	14·9	1	14·93
Group V.—Gangetic Plain and Chutia Nagpur	179	...	...	1	...	...	...	...	...	...	1	...	...	2	11·2	2	11·17
A																	
Jubbulpore	29	...	...	1	...	...	...	...	...	...	...	...	...	1	34·5	1	34·48
Group IX.—Deccan	270	...	...	1	...	...	...	...	...	...	...	...	...	1	3·7	1	3·70
INDIA	2,048	...	...	2	...	1	...	...	...	...	1	...	...	4	2·0	3	1·46
Bengal	587	...	...	2	...	...	...	...	...	...	1	...	...	3	5·1	3	5·11
Punjab	468	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	340	...	...	...	...	1	...	...	...	...	...	...	...	1	2·9	...	...
Bombay	450	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Stations where Cholera did not occur are not shown in this table.

D.—ENTERIC FEVER by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of admissions from Enteric Fever in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Rangoon	32	...	...	...	...	...	1	...	...	...	...	...	...	1	31·2	...	...
Group I.—Burma Coast and Bay Islands	35	...	...	...	...	...	1	...	...	...	...	...	...	1	28·6	...	...
B																	
Dinapore	14	1	...	...	...	...	...	...	...	...	...	...	...	1	71·4	...	...
Allahabad	28	...	...	...	...	...	...	1	...	...	...	...	...	1	35·7	...	...
Fyzabad	18	1	...	...	1	...	...	...	...	...	...	...	...	2	111·1	...	...
Lucknow	67	...	...	2	...	...	...	...	...	1	...	2	...	5	74·6	1	14·93
Cawnpore	20	...	...	1	...	...	...	...	...	...	...	...	...	1	50·0	...	...
Group V.—Gangetic Plain and Chutia Nagpur	179	2	...	3	1	...	...	1	...	1	...	2	...	10	55·9	1	5·59
A																	
Bareilly	27	...	...	...	...	...	...	...	...	...	...	...	1	1	37·0	...	...
Roorkee	11	...	...	...	...	...	...	...	...	1	...	...	...	1	90·9	...	...
Meerut	59	1	...	...	...	...	...	...	...	...	1	...	...	2	33·9	...	...
Umballa	58	1	...	1	...	...	...	1	...	...	...	...	...	3	51·7	...	...
B																	
Amritsar	6	...	...	...	...	...	...	...	...	...	1	...	...	1	166·7	...	...
Mecan Meer	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	47·62
Sialkot	28	...	...	...	...	1	...	...	...	...	...	...	...	1	35·7	1	35·71
Rawalpindi	93	...	...	...	...	1	...	...	...	1	...	...	...	2	21·5	...	...
Group VI.—Upper Sub-Himalayan	375	2	...	1	...	2	...	1	...	2	2	...	1	11	29·3	2	5·33
A																	
Peshawar	50	...	...	...	...	...	...	...	...	...	...	...	2	2	40·0	1	20·00
C																	
Kurrachee	38	...	...	...	...	...	1	...	...	...	...	...	...	1	26·3	1	26·32
Group VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana	127	...	...	...	...	...	1	...	...	...	...	...	2	3	23·6	2	15·75
B																	
Nasirabad	16	...	...	...	1	1	...	...	...	...	...	...	...	2	125·0	1	62·50
Agra	26	...	...	1	...	...	...	...	1	1	...	1	...	4	153·8	1	38·46
Jhansi	25	...	...	...	...	1	...	...	...	...	...	...	1	2	80·0	...	...
Mhow	55	...	...	...	...	1	...	1	1	...	...	...	...	3	54·5	1	18·18
Group VIII.—South-East Rajputana, Central India, and Gujarat	177	...	...	1	1	3	...	1	2	1	...	1	1	11	62·1	3	16·95

* Stations where Enteric Fever did not occur are not shown in this table.

TABLE XVIII—*continued.*

STATISTICS OF OFFICERS.

D.—ENTERIC FEVER by months, stations, groups, and commands—concluded.

Stations.	Average annual strength.	Number of admissions from Enteric Fever in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
B																	
Secunderabad	71	1	...	...	...	...	...	2	...	...	...	...	...	3	42·3	1	14·08
Belgam	28	...	...	...	...	...	...	1	1	...	...	...	...	2	71·4	1	35·71
Poona	66	1	...	...	...	...	...	...	...	1	...	...	...	2	30·3	1	15·15
Kirkee	29	...	...	...	...	...	1	...	...	...	...	...	...	1	34·5	...	...
Group IX.—Deccan	270	2	...	...	...	...	1	3	1	1	...	...	...	8	29·6	3	11·11
A																	
Bangalore	46	...	...	1	..	...	...	...	...	...	...	...	...	1	21·7	...	...
Group XI.—Southern India	92	...	...	1	...	...	...	...	...	...	...	...	...	1	10·9	...	...
Chakrata	27	...	...	...	...	...	...	1	...	...	...	...	...	1	37·0	1	37·04
Dagshai	13	...	...	...	...	...	...	1	...	...	...	...	...	1	76·9	...	...
Cherat	7	...	...	...	...	...	...	1	...	...	...	...	...	1	142·9	...	...
Quetta	57	...	...	...	...	...	5	...	...	...	...	...	...	5	87·7	...	...
Group XII (*a*).—Hill Stations	188	...	...	...	...	...	5	3	...	...	...	...	...	8	42·6	1	5·32
Kasauli	13	...	...	...	...	...	...	...	...	...	1	...	...	1	76·9	...	...
Dalhousie	13	...	...	...	...	...	1	...	...	...	...	...	...	1	76·9	...	...
Murree	12	...	...	...	...	...	...	...	...	1	...	...	...	1	83·3	...	...
Wellington	30	...	...	...	...	...	1	1	...	...	...	...	...	2	66·7	1	33·33
Group XII (*b*).—Hill Convalescent Depôts, and Sanitaria.	115	...	...	...	...	...	2	1	...	1	1	...	...	5	43·5	1	8·70
Troops marching, Punjab	24	...	...	...	...	...	...	...	...	1	1	4	...	6	250 0	...	...
Tochi Field Force	28	...	..	...	...	...	...	...	2	1	2	...	...	5	178·6	2	71·43
Malakand ,,	61	...	...	...	...	...	...	...	...	...	3	...	...	3	49·2	...	...
Tirah ,, ,,	96	...	...	...	...	...	...	...	...	...	3	...	8	11	114·6	1	10·42
INDIA	2,048	6	...	6	2	5	10	10	5	8	12	7	12	83	40·5	16	7·81
Bengal	587	3	...	4	1	1	...	2	1	3	1	3	2	21	35 8	3	5·11
Punjab	468	1	...	1	...	2	1	3	...	3	3	4	2	20	42·7	3	6·41
Madras	340	1	...	1	...	...	2	4	1	...	...	...	...	9	26·5	3	8·82
Bombay	450	1	...	...	1	2	7	1	1	1	...	...	...	14	31·1	4	8·89

E.—DETAIL of DISEASES.

Diseases.	India.* Admissions.	India.* Deaths.	India.* Invaliddings.	Field Service. Admissions.	Field Service. Deaths.
mall-pox	4	...	2	...	...
ow-pox	1	...	...	...	...
easles	5	...	...	...	...
ubella	7	...	...	...	...
arlet fever	4	...	...	...	...
ague	2	...	...	...	...
ague	2	...	...	...	...
fluenza	20	...	2	...	...
umps	1	...	...	...	...
phtheria	...	...	...	1	...
mple continued fever	121	...	3	10	...
steric fever	64	13	31	19	3
holera	4	3	...	...	...
idemic diarrhœa	...	...	...	4	...
senteryy	58	2	8	35	...
termittent fever	383	...	15	70	...
emittent fever	99	2	15	30	...
oughing phagedæna	1	...	...	...	...
berele of the lungs	2	...	2	...	...
imary syphilis	7	...	...	...	...
condary ,,	5	...	...	2	...
norrhœa	16	...	...	...	...
thrax	2	...	1	...	...
enia solium	2	...	...	...	...
strus hominis	1	...	...	...	...
ngworm	3	...	...	...	...
eumatic fever	1	...	...	...	...
eumatism	17	...	1	3	...
et	6	1	...	...	...
æmia	1	...	2	...	...
bility	31	...	12	1	...
rebral meningitis	1	...	1	1	1
emiplegia	1	...	1	...	...
cal paralysis	...	...	...	1	...
rtigo	1	...	1	...	...
adache	1	...	...	...	...
uralgia	11	...	...	1	...
rvous weakness	5	...	2	...	...
ania	1	...	1	...	...
elancholia	1	...	1	...	...
ementia	2	...	...	...	...
elusional insanity	1	...	1	...	...
njunctivitis, catarrhal	8	...	...	...	...
itis	1	...	...	...	...
ye	1	...	...	...	...
dema of eyelids	1	...	...	...	...
flammation of external ear	6	...	...	...	...
bscess of external ear	2	...	...	...	...
ricarditis	1	...	1	...	...
alvular disease of the heart	1	...	1	...	...
gina pectoris	1	...	1	1	...
hlebitis	1	...	1	...	...
aryngitis	3	...	1	...	...
racheitis	1	...	...	...	...
ronchitis	10	...	...	5	...
asmodic asthma	5	...	1	1	...
neumonia	2	...	1	2	...
leurisy	2	...	...	1	...
tomatitis	2	...	...	...	...
aries of dentine	1	...	...	...	...
flammation of the dental periosteum	2	...	...	...	...
um-boil	5	...	...	...	...
ppuration of the periosteum	1	...	...	...	...
ore-throat	17	...	...	1	...
lceration of the palate and fauces	1	...	...	...	...
onsillitis	3	...	...	3	...
,, follicular	11	...	...	...	...
uinsy	4	...	...	1	...
astritis	9	...	...	1	...
ndigestion	16	...	2	...	...
nteritis	7	1	2	...	...
yphlitis	1	1	...	...	...
olitis	2	...	...	...	...
nflammation of the intestines, catarrhal	11	...	...	...	...

Diseases.	India.* Admissions.	India.* Deaths.	India.* Invaliddings.	Field Service. Admissions.	Field Service. Deaths.
Hernia	1	...	1	...	...
Colic	3	...	...	1	...
Diarrhœa	68	...	2	17	...
Periproctitis	1	...	...	...	...
Abscess of the rectum and anus	1	...	...	...	...
Fistula in ano	3	...	...	...	...
Piles	8	...	...	...	...
Hepatitis	11	...	5	7	...
Abscess of the liver	1	1	...	...	...
Ditto assctd. with dysentery	1	1	...	...	...
Congestion of the liver	35	1	4	2	...
Jaundice	8	...	1	2	...
Cholecystitis	1	...	...	...	...
Gallstones	1	...	1	1	...
Inflammation of lymph vessels and glands	13	...	...	..	...
Acute nephritis	3	1	1	...	...
Chronic nephritis	1	...	...	...	...
Pyelitis	1	...	1	...	...
Calculus in kidney	1	...	1	...	...
Ditto ureter	2	...	...	...	...
Hæmaturia	2	...	...	...	...
Inflammation of the bladder	6	...	...	...	...
Stricture of urethra, organic	1	...	...	...	...
Hypertrophy of prostate	1	...	...	...	...
Phimosis	1	...	...	...	...
Softchancre	4	...	...	1	...
Hydrocele	1	...	...	1	...
Orchitis	3	...	...	...	...
Periostitis, circumscribed	1	...	...	...	...
Ditto diffuse	1	...	...	...	...
Synovitis	24	...	1	2	..
Myalgia	8	...	...	...	...
Tenosynovitis	1	...	...	..	...
Inflammation of bursæ	3	...	...	...	...
Ditto connective tissue	16	...	...	...	...
Abscess of connective tissue	12	...	...	...	...
Roseola	1	...	...	...	...
Prickly heat	1	...	...	...	...
Eczema	5	...	...	...	...
Prurigo	1	...	...	...	...
Psoriasis	2	...	1	...	...
Herpes	1	...	...	...	...
Dermatitis herpetiformis	1	...	...	...	...
Ulcer	12	...	1	2	...
Boil	55	...	...	...	...
Carbuncle	3	...	...	...	...
Whitlow	5	...	...	...	...
Onychia	1	...	...	...	...
Corn	3	...	...	...	...
Burns and scalds	1	...	...	...	...
Heat-stroke	3	2	1	3	...
Sunstroke	4	...	1	3	...
Contusions	58	...	1	1	...
Ditto from gunshot	...	...	...	1	...
Strains and sprains	76	...	...	3	...
Rupture of muscles, etc.	2	...	...	...	...
Wounds from gunshot	4	2	1	38	1
Other wounds	27	...	1	...	...
Abrasions	10	...	...	...	...
Fracture of the base of the skull	...	...	1	...	...
Ditto other bones	26	...	1	1	...
Dislocations	11	...	...	1	...
Concussion of the brain	19	...	1	...	...
Contusion of the eyeball with rupture of the sclerotic	1	...	...	...	...
Rupture of lung	1	1	...	...	...
Poisoned wound by dog	1	...	1	...	...
Ditto tiger	...	...	1	...	...
In action	2	...	2	1	14
Total	1,620	32	145	282	19

* Excluding Field Service.

B. WOMEN.

TABLE XIX.

RATIOS AND ACTUALS OF COMMANDS.

	Bengal Command.		Punjab Command.		Madras Command.		Bombay Command.		India.*		
Strength	971		776		728		728		3,203		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1896.
Constantly sick	41·9	40·73	33·7	26·12	44·3	32·23	31·8	23·14	38·2	122·22	
ADMISSIONS:—											
Influenza	9·3	9	...	...	1·4	1	...	...	3·1	10	...
Cholera	1·0	1	...	...	...	...	1·4	1	·6	2	...
Small-pox	7·2	7	2·6	2	1·4	1	1·4	1	3·4	11	1
Enteric Fever	6·2	6	15·5	12	4·1	3	2·7	2	7·2	23	4
Intermittent Fever	189·5	184	146·9	114	72·8	53	236·3	172	163·3	523	15
Remittent Fever	8·2	8	15·5	12	6·9	5	9·6	7	10·0	32	...
Simple Continued Fever	20·6	20	5·2	4	22·0	16	13·7	10	15·6	50	...
Tubercle of the lungs	9·3	9	3·9	3	5·5	4	8·2	6	6·9	22	1
Pneumonia	2·1	2	...	...	1·4	1	2·7	2	1·6	5	1
Other Respiratory Diseases	10·3	10	9·0	7	20·6	15	17·9	13	14·0	45	2
Dysentery	29·9	29	10·3	8	22·0	16	23·4	17	21·9	70	2
Diarrhœa	16·5	16	12·9	10	8·2	6	13·7	10	13·1	42	1
Anæmia and Debility	284·2	276	262·9	204	233·5	170	274·7	200	265·4	850	33
Abortion and Puerperal Affections	31·9	31	49·0	38	38·5	28	30·2	22	37·2	119	2
Other diseases peculiar to women	54·6	53	32·2	25	78·3	57	52·2	38	54·0	173	6
ALL CAUSES	851·7	827	692·0	537	681·3	496	825·5	601	768·3	2,461	92
DEATHS:—											*Deaths out of Hospital.*
Cholera	1·03	1	...	...	...	...	1·37	1	·62	2	...
Small-pox	1·03	1	...	...	...	...	...	...	·31	1	...
Enteric Fever	...	...	2·58	2	1·37	1	...	...	·94	3	...
Intermittent Fever	...	...	1·29	1	...	...	...	...	·31	1	...
Remittent Fever	...	...	2·58	2	...	...	1·37	1	·94	3	...
Simple Continued Fever	...	...	...	...	...	...	...	...	...	...	...
Tubercle of the lungs	1·03	1	1·29	1	...	...	2·75	2	1·25	4	1
Pneumonia	...	...	1·29	1	...	...	2·75	2	·94	3	...
Other Respiratory Diseases	...	...	...	...	...	...	...	...	...	...	...
Dysentery	2·06	2	...	...	...	...	1·37	1	·94	3	...
Diarrhœa	...	...	...	...	...	...	...	...	...	...	...
Hepatic Abscess	...	...	...	...	...	...	...	...	...	...	...
Childbirth and Abortion	3·09	3	1·29	1	...	...	1·37	1	1·56	5	...
ALL CAUSES	19·57	19	15·46	12	6·87	5	17·86	13	15·30	49	5
PERCENTAGE IN 100 ADMISSIONS:—											
Influenza		1·09		...		·20		...		·41	
Cholera		·12		...		...		·17		·08	
Small-pox		·85		·37		·20		·17		·45	
Enteric Fever		·73		2·23		·60		·33		·93	
Intermittent Fever		22·25		21·23		10·69		28·62		21·25	
Remittent Fever		·97		2·23		1·01		1·16		1·30	
Simple Continued Fever		2·42		·74		3·23		1·66		2·03	
Tubercle of the lungs		1·09		·56		·81		1·00		·89	
Pneumonia		·24		...		·20		·33		·20	
Other Respiratory Diseases		1·21		1·30		3·02		2·16		1·83	
Dysentery		3·51		1·49		3·23		2·83		2·84	
Diarrhœa		1·93		1·86		1·21		1·66		1·71	
Anæmia and Debility		33·37		37·99		34·27		33·28		34·54	
Abortion and Puerperal Affections		3·75		7·08		5·65		3·66		4·84	
Other diseases peculiar to women		6·41		4·66		11·49		6·32		7·03	
PERCENTAGE IN 100 DEATHS:—											
Cholera		5·3		...		...		7·7		4·1	
Small-pox		5·3		...		...		...		2·0	
Enteric Fever		...		16·7		20·0		...		6·1	
Intermittent Fever		...		8·3		...		...		2·0	
Remittent Fever		...		16·7		...		7·7		6·1	
Simple Continued Fever		...		...		...		...		...	
Tubercle of the lungs		5·3		8·3		...		15·4		8·2	
Pneumonia		...		8·3		...		15·4		6·1	
Other Respiratory Diseases		...		...		...		...		...	
Dysentery		10·5		...		...		7·7		6·1	
Diarrhœa		...		...		...		...		...	
Hepatic Abscess		...		...		...		...		...	
Childbirth and Abortion		15·8		8·3		...		7·7		10·2	

* For complete detail of diseases see Table LIII.

TABLE XX.

CHOLERA by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of admissions from Cholera in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
B																	
Itapur	15	...	...	...	...	...	...	...	...	1	...	...	...	1	66·7	1	66·67
Group V.—Gangetic Plain and Chutia Nagpur	309	...	...	...	...	...	...	...	...	1	...	...	...	1	3·2	1	3·24
Deolali Depôt	34	...	...	...	...	...	1	...	...	...	...	...	...	1	29·4	1	29·41
INDIA	3,203	...	...	...	...	...	1	...	...	1	...	...	...	2	·6	2	·62
Bengal	971	...	...	...	...	...	...	...	...	1	...	...	...	1	1·0	1	1·03
Punjab	776	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	728	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bombay	728	...	...	...	...	...	1	...	...	...	...	...	...	1	1·4	1	1·37

* Stations where Cholera did not occur are not shown in this table.

TABLE XXI.

ENTERIC FEVER by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of Admissions from Enteric Fever in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Barrackpore	29	...	...	...	...	2	...	...	...	...	...	...	...	2	69·0	...	...
Group IV.—Bengal and Orissa	148	...	...	...	...	2	...	...	...	...	...	...	...	2	13·5	...	...
B																	
Allahabad	43	...	...	...	...	...	...	...	...	...	...	...	1	1	23·3	...	...
Group V.—Gangetic Plain and Chutia Nagpur	309	...	...	...	...	...	...	...	...	...	...	...	1	1	3·2	...	...
A																	
Umballa	65	...	...	...	...	...	1	...	...	...	...	...	...	1	15·4	...	...
B																	
Sialkot	52	...	...	...	...	...	...	...	...	...	...	1	...	1	19·2	...	...
Group VI.—Upper Sub-Himalayan	588	...	...	...	...	...	1	...	...	...	...	1	...	2	3·4	...	...
B																	
Jhansi	46	...	...	...	...	...	...	...	...	...	...	...	1	1	21·7	...	...
Mhow	109	...	...	...	...	...	...	1	...	...	...	...	...	1	9·2	...	...
Group VIII.—S. E. Rajputana, Central India, and Gujarat	391	...	...	...	...	...	...	1	...	...	...	...	1	2	6·6	...	...
A																	
Saugor	22	...	...	...	...	...	...	...	...	...	...	...	1	1	45·5	...	...
Jubbulpore	37	...	...	...	1	...	...	...	...	...	...	...	...	1	27·0	...	...
B																	
Secunderabad	177	1	...	...	...	1	...	...	...	...	...	...	...	2	11·3	1	5·65
Kirkee	72	...	...	...	...	...	...	...	1	...	...	...	...	1	13·9	...	...
Group IX.—Deccan	473	1	...	...	1	1	...	...	1	...	...	...	1	5	10·6	1	2·11
Dagshai	36	...	...	...	...	...	2	...	...	1	...	...	...	3	83·3	...	...
Cherat	23	...	...	...	...	...	...	2	2	1	...	...	...	5	217·4	1	43·48
Group XIIa.—Hill Stations	382	...	...	...	...	...	2	2	2	2	...	...	...	8	74·1	1	3·01
Dalhousie	23	...	...	...	...	...	1	...	...	...	...	...	...	1	43·5	...	...
Murree	48	...	...	...	...	...	1	...	...	...	...	...	...	1	20·8	1	20 83
Wellington	48	...	...	...	...	...	...	1	...	...	...	...	...	1	20·8	...	...
Group XIIb.—Hill Convalescent Depôts, and Sanitaria	235	...	...	...	...	...	2	1	...	...	...	...	...	3	12·8	1	4·26
INDIA	3,203	1	...	...	1	3	5	4	3	2	...	1	3	23	7·2	3	·94
Bengal	971	...	...	...	1	2	...	...	...	...	...	...	3	6	6·2	...	...
Punjab	770	...	...	...	...	...	5	2	2	2	...	1	...	12	15·5	2	2·58
Madras	728	...	...	...	...	1	...	1	...	...	...	...	...	3	4·1	1	1·37
Bombay	728	...	...	...	...	...	...	1	1	...	...	...	...	2	2·7	...	...

* Stations where Enteric Fever did not occur are not shown in this table.

C. CHILDREN.

TABLE XXII.

RATIOS AND ACTUALS OF COMMANDS.

	Bengal Command.		Punjab Command.		Madras Command.		Bombay Command.		India.*		
Strength	1,719		1,337		1,372		1,316		5,744		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1896
Constantly sick	26·0	44·77	24·4	32·61	34·3	47·00	22·1	29·06	26·7	153·44	
ADMISSIONS :—											
Influenza	3·5	6	12·7	17	...	...	...	...	4·0	23	...
Cholera	2·9	5	...	...	1·5	2	4·6	6	2·3	13	...
Small-pox	2·3	4	...	...	·7	1	...	...	·9	5	3
Measles	18·0	31	61·3	82	24·1	33	19·8	26	29·9	172	1
Whooping Cough	5·2	9	...	...	2·9	4	·8	1	2·4	14	1
Enteric Fever	6·4	11	6·7	9	3·6	5	8·4	11	6·3	36	4
Intermittent Fever	85·5	147	77·0	103	75·1	103	197·6	260	106·7	613	13
Remittent Fever	15·1	26	11·2	15	14·6	20	11·4	15	13·2	76	3
Simple Continued Fever	23·9	41	14·2	19	32·8	45	14·4	19	21·6	124	1
Tuberculous Diseases	·6	1	3·7	5	4·4	6	2·3	3	2·6	15	...
Respiratory Diseases	54·1	93	65·8	88	113·7	156	40·3	53	67·9	390	10
Dysentery	17·5	30	9·0	12	21·1	29	15·2	20	15·8	91	3
Diarrhœa	44·8	77	47·1	63	23·3	32	51·7	68	41·8	240	6
Eye Diseases	57·0	98	13·4	18	70·7	97	25·1	33	42·8	246	2
ALL CAUSES	568·9	978	516·8	691	652·3	895	548·6	722	572·1	3,286	94
DEATHS :—											*Deaths out of hospital.*
Cholera	1·16	2	...	...	1·46	2	·76	1	·87	5	...
Small-pox	·58	1	...	...	...	...	...	...	·17	1	...
Diphtheria and Croup	·58	1	...	...	·73	1	·76	1	·52	3	...
Enteric Fever	·58	1	...	...	...	...	·76	1	·35	2	...
Intermittent Fever	1·16	2	1·50	2	...	...	6·84	9	2·26	13	1
Remittent Fever	1·16	2	1·50	2	·73	1	1·52	2	1·22	7	...
Simple Continued Fever	...	...	...	...	2·19	3	1·52	2	·87	5	...
Tuberculous Diseases	...	...	5·23	7	2·19	3	2·28	3	2·26	13	...
Convulsions	5·24	9	2·99	4	·73	1	8·36	11	4·35	25	...
Respiratory Diseases	4·65	8	5·23	7	3·64	5	6·84	9	5·05	29	1
Teething	7·56	13	4·49	6	13·85	19	5·32	7	7·83	45	...
Dysentery	1·75	3	2·24	3	3·64	5	2·28	3	2·44	14	...
Diarrhœa	7·56	13	9·72	13	5·10	7	9·12	12	7·83	45	1
Anæmia, Debility, and Immaturity	6·40	11	5·98	8	3·64	5	10·64	14	6·62	38	...
ALL CAUSES	48·87	84	47·12	63	42·27	58	64·59	85	50·49	290	5
PERCENTAGE IN 100 ADMISSIONS :—											
Influenza	·61		2·46		...		...		·70		
Cholera	·51		...		·22		·83		·40		
Small-pox	·41		...		·11		...		·15		
Measles	3·17		11·87		3·69		3·60		5·23		
Whooping Cough	·92		...		·45		·14		·43		
Enteric Fever	1·12		1·30		·56		1·52		1·10		
Intermittent Fever	15·03		14·91		11·51		36·01		18·65		
Remittent Fever	2·66		2·17		2·23		2·08		2·31		
Simple Continued Fever	4·19		2·75		5·03		2·63		3·77		
Tuberculous Diseases	·10		·72		·67		·42		·46		
Respiratory Diseases	9·51		12·74		17·43		7·34		11·87		
Dysentery	3·07		1·74		3·24		2·77		2·77		
Diarrhœa	7·87		9·12		3·58		9·42		7·30		
Eye Diseases	10·02		2·60		10·84		4·57		7·49		
PERCENTAGE IN 100 DEATHS :—											
Cholera	2·4		...		3·4		1·2		1·7		
Small-pox	1·2		...		...		...		·3		
Diphtheria and Croup	1·2		...		1·7		1·2		1·0		
Enteric Fever	1·2		...		...		1·2		·7		
Intermittent Fever	2·4		3·2		...		10·6		4·8		
Remittent Fever	2·4		3·2		1·7		2·4		2·4		
Simple Continued Fever	...		...		5·2		2·4		1·7		
Tuberculous Diseases	...		11·1		5·2		3·5		4·8		
Convulsions	10·7		6·3		1·7		12·9		8·6		
Respiratory Diseases	9·5		11·1		8·6		10·6		10·0		
Teething	15·5		9·5		32·8		8·2		15·5		
Dysentery	3·6		4·8		8·6		3·5		4·8		
Diarrhœa	15·5		20·6		12·1		14·1		15·5		
Anæmia, Debility, and Immaturity	13·1		12·7		8·6		16·5		13·1		

* For complete detail of diseases see Table LIII.

TABLE XXIII.

CHOLERA by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of Admissions from Cholera in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
B																	
ur	22	...	...	...	...	...	...	...	...	1	...	...	...	1	45·5	...	...
know	152	...	...	...	...	...	...	...	...	...	3	...	...	3	19·7	1	6·58
mpore	59	...	...	...	...	...	...	1	...	...	...	...	...	1	16·9	1	16·95
up V.—Gangetic Plain d Chutia Nagpur	531	...	...	...	...	...	...	1	...	1	3	...	...	5	9·4	2	3·77
B																	
gam	56	...	...	...	1	...	1	...	...	...	...	...	...	2	35·7	2	35·71
ee	138	...	...	...	...	...	2	4	...	...	...	...	...	6	43·5	1	7·25
Group IX.—Deccan	898	...	...	...	1	...	3	4	...	...	...	...	...	8	8·9	3	3·34
INDIA	5,744	...	...	...	1	...	3	5	...	1	3	...	...	13	2·3	5	·87
NGAL	1,719	...	...	...	...	...	...	1	...	1	3	...	...	5	2·9	2	1·16
NJAB	1,337	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ADRAS	1,372	...	...	...	1	...	1	...	...	...	...	...	...	2	1·5	2	1·46
OMBAY	1,316	...	...	...	...	...	2	4	...	...	...	...	...	6	4·6	1	·76

* Stations where Cholera did not occur are not shown in this table.

TABLE XXIV.

ENTERIC FEVER by months, stations, groups, and commands.

Stations.*	Average annual strength.	Number of Admissions from Enteric Fever in each month.												Total admissions.	Admission-rate per 1,000 of strength.	Total deaths.	Death-rate per 1,000 of strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
Rangoon	138	...	...	...	...	1	1	...	...	...	...	...	...	2	14·5	...	...
Group I.—Burma Coast and Bay Islands.	146	...	...	...	...	1	1	...	...	...	...	...	...	2	13·7	...	...
B																	
Allahabad	77	1	...	...	...	...	...	...	...	...	...	...	...	1	13·0	...	...
Group V.—Gangetic Plain and Chutia Nagpur.	531	1	...	...	...	...	...	...	...	...	...	...	...	1	1·9	...	...
A																	
Bareilly	72	...	...	...	...	1	...	1	...	...	...	...	...	2	27·8	...	...
B																	
Meean Meer	62	...	...	...	1	...	...	...	...	...	...	...	...	1	16·1	...	...
Sialkot	86	...	...	...	...	...	...	...	...	...	1	...	...	1	11·6	...	...
Group VI.—Upper Sub-Himalayan.	965	...	...	...	1	1	...	1	...	...	1	...	...	4	4·1	...	...
B																	
Agra	65	...	1	...	1	1	...	...	1	...	...	1	...	5	76·9	...	...
Jhansi	62	...	...	...	...	...	...	...	...	...	...	...	1	1	16·1	...	...
Mhow	175	1	...	...	...	...	...	...	1	...	...	...	...	2	11·4	...	...
Group VIII.—South-East Rajputana, Central India, and Gujarat.	460	1	1	...	1	1	...	...	2	...	...	1	1	8	17·4	...	...
B																	
Belgam	56	...	...	...	...	...	1	...	...	...	...	...	...	1	17·9	...	...
Kirkee	138	...	...	...	...	...	...	5	2	1	...	...	...	8	58·0	1	7·2
Group IX.—Deccan	898	...	...	...	...	...	1	5	2	1	...	...	...	9	10·0	1	1·1
Colaba	182	...	...	...	...	...	...	...	...	...	...	...	1	1	5·5	...	...
Group X.—Western Coast	211	...	...	...	...	...	...	...	...	...	...	...	1	1	4·7	...	...
A																	
Bangalore	234	1	...	...	...	...	...	...	...	...	...	...	...	1	4·3	...	...
Group XI.—Southern India	491	1	...	...	...	...	...	...	...	...	...	...	...	1	2·0	...	...
Ranikhet	115	...	...	...	...	...	...	...	1	...	...	...	...	1	8·7	1	8·7
Chakrata	31	...	...	...	...	...	...	...	...	1	...	...	...	1	32·3	...	...
Jutogh	21	...	...	...	...	1	...	...	...	...	...	...	...	1	47·6	...	...
Camp Gharial	37	...	...	...	...	1	...	...	...	...	...	...	...	1	27·0	...	...
Cherat	38	...	...	...	...	...	1	1	1	...	...	...	...	3	78·9	...	...
Group XIIa.—Hill Stations.	656	...	...	...	...	2	1	1	2	1	...	...	...	7	10·7	1	1·5
Dalhousie	43	...	...	...	1	...	...	...	...	...	...	...	...	1	23·3	...	...
Murree	112	...	...	...	...	...	...	1	...	...	...	...	...	1	8·9	...	...
Wellington	82	...	...	...	...	...	...	...	1	...	...	...	...	1	12·2	...	...
Group XIIb.—Hill Convalescent Depôts, and Sanitaria.	476	...	...	...	1	...	...	1	1	...	...	...	...	3	6·3	...	...
INDIA	5,744	3	1	...	3	5	3	8	7	2	1	1	2	36	6·3	2	·3
Bengal	1,719	1	1	...	1	2	...	1	2	1	...	1	1	11	6·4	1	·5
Punjab	1,337	...	...	...	2	2	1	2	1	...	1	...	...	9	6·7	...	...
Madras	1,372	1	...	...	...	1	2	...	1	...	...	...	...	5	3·6	...	...
Bombay	1,316	1	...	...	...	...	...	5	3	1	...	...	1	11	8·4	1	·7

* Stations where Enteric Fever did not occur are not shown in this table.

TABLE XXV.

DEATHS OF CHILDREN BY AGES AND CAUSES.

Age at death.	Cholera.	Small-pox.	Diphtheria and Croup.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tuberculous Diseases.	Convulsions.	Respiratory Diseases.	Teething.	Dysentery.	Diarrhœa.	Anæmia, Debility, and Immaturity at birth.	All Causes.	Strength on 1st July 1897.	Deaths per 1,000 of strength. (a)	Liability.
Under 6 months	...	...	...	1	...	2	2	6	15	10	3	1	16	36§	109	436	250·00	37·90
Between 6 and 12 months	...	1	...	...	7	1	2	1	5	5	24†	9	12	2	74	506	146·25	22·17
„ 12 and 18 „	...	...	1	...	1	1	1	3	1	4	16‡	...	10	...	44	456	96·49	14·62
„ 18 and 24 „	...	...	1*	...	...	...	...	1	...	3	2‖	1	2	...	15	453	33·11	5·02
„ 2 years and 3 years	2	...	...	...	2	1	...	...	3	2	...	...	3	...	15	580	25·86	3·92
„ 3 „ and 4 „	1	...	...	...	...	...	...	...	...	1	...	1	1	...	9	561	16·04	2·43
„ 4 „ and 5 „	2	...	1*	...	...	1	...	1	1	3	...	...	...	...	12	472	25·42	3·85
„ 5 „ and 6 „	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	432	2·31	·35
„ 6 „ and 7 „	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	377	2·65	·40
„ 7 „ and 8 „	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	327	3·06	·46
„ 8 „ and 9 „	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	267	7·49	1·14
„ 9 „ and 10 „	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2	227	8·81	1·34
„ 10 „ and 11 „	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	192	5·21	·79
„ 11 „ and 12 „	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	148	...	...
„ 12 „ and 13 „	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	131	15·27	2·31
„ 13 „ and 14 „	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	113	8·85	1·34
„ 14 „ and 15 „	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	74	...	...
15 and upwards	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	77	12·99	1·97
Total	5	1	3	2	13	7	5	13	25	29	45	14	45	38	290	5,829	49·75	100

* Croup.
† Eight with convulsions and two with diarrhœa.
‡ Five with convulsions and three with diarrhœa.
‖ One with convulsions.
§ Twenty-three Immaturity at birth.
(a) On the supposition that the strength on 1st July represents the average annual strength.

II.—NATIVE TROOPS, 1897.

TABLE H.

STATIONS by COMMANDS.

Stations.	Height above the sea level in feet.*	Authority for height.†
Bengal Command :—		
Manipur	2,619	S. G.
Sadiya	...	...
Dibrugarh	342	S. G.
Silchar	104	M. D.
Fort William	17	S. G.
Alipore	...	...
Ballygunge	...	...
Dum Dum	...	...
Barrackpore	24	S. G.
Buxa	2,457	,,
Cuttack	74	,,
Doranda	2,166	,,
Dinapore	...	...
Benares	256	S. G.
Allahabad	298	,,
Fyzabad	336	,,
Lucknow	400	,,
Cawnpore	417	,,
Fatehgarh	500	M. O.
Bareilly	560	S. G.
Roorkee	884	,,
Dehra Dun	2,229	,,
Meerut	739	,,
Delhi	715	,,
Agra	554	,,
Gwalior	...	...
Jhansi	860	S. G.
Nowgong	757	M. D.
Goona	1,617	S. G.
Agar	1,671	,,
Sehore	1,617	,,
Saugor	1,753	,,
Sutna	1,040	M. D.
Jubbulpore	1,306	S. G.
Kohima	4,500	I. B.
Shillong	4,987	S. G.
Gantak	5,000	I. B.
Darjeeling	7,168	S. G.
Almora	5,494	,,
Ranikhet	5,983	,,
Naini Tal	6,400	,,
Lansdowne	...	...
Punjab Command :—		
Umballa	902	S. G.
Ludhiana	806	,,
Jullundur	900	,,
Ferozepore	645	,,
Meean Meer	706	,,
Amritsar	756	,,
Kangra	2,412	,,
Sialkot	829	,,
Jhelum	827	,,
Rawalpindi	1,707	,,
Attock	891	,,
Mardan	...	...
Nowshera	1,100	M. O.
Shabkadar	1,200	I. B.
Peshawar	1,165	S. G.
Hari Singh-Ka-Burj	1,280	I. B.
Fort Jamrud	1,610	S. G.
Bara	1,543	I. B.
Matanni	1,760	,,
Kohat	1,768	S. G.
Bahadur Khel	1,873	I. B.
Thal	2,820	,,
Edwardesabad	1,279	,,
Jani Khel	1,300	,,
Dera Ismail Khan	571	S. G.
Tank, Jatta, and Draband	1,000	I. B.

Stations.	Height above the sea level in feet.*	Authority for height.†
Punjab Command :—*contd.*		
Mangrota	500	I. B.
Dera Ghazi Khan	395	S. G.
Mooltan	402	,,
Sadda	...	...
Idak	2,140	I. B.
Saidgi	1,775	,,
Jandola	2,400	,,
Khajuri Kach	2,500	,,
Simla	7,230	S. G.
Jutogh	6,371	,,
Dharmsala	6,111	,,
Bakloh	4,585	,,
Murree	7,098	,,
Khyragully	8,746	,,
Baragully	...	...
Kalabagh	8,000	M. O.
Gilgit	4,890	S. G.
Chitral	4,980	,,
Malakand	3,580	,,
Abbottabad	4,152	,,
Cherat	4,520	,,
Dar	5,000	I. B.
Fort Lockhart	6,567	,,
Fort Cavagnari	6,500	,,
Parachinar	5,146	,,
Sultankot	4,600	,,
Miran Shah	3,050	,,
Boya	3,600	,,
Datta Khel	4,500	,,
Sarwekai	4,076	,,
Wana	4,500	,,
Madras Command :—		
Port Blair	85	S. G.
Moulmein	288	,,
Rangoon	14	,,
Thayetmyo	145	,,
Loikaw	2,830	,,
Keng Tung	2,773	,,
Fort Stedman	2,900	,,
Thamakan	...	...
Meiktila	298	S. G.
Fort Dufferin	249	,,
Kyaukmyaung	...	...
Thabeitkyin	...	...
Bhamo	351	S. G.
Shwebo	600	M. O.
Myingyan	243	S. G.
Kalewa	328	,,
Secunderabad	1,732	,,
Belgam	2,473	,,
Cannanore	47	,,
Trichoor	29	,,
Quilon	...	...
Trivandrum	198	M. D.
Bellary	1,483	S. G.
Bangalore	3,021	,,
Trichinopoly	274	,,
St. Thomas' Mount	250	,,
Madras	15	,,
Vizianagram	191	,,
Berhampur	60	,,
Maymyo	3,600	,,
Bampon	4,000	I. B.
Toungyi	5,715	S. G.
Mindat-Sakan	4,950	I. B.
Haka	7,518	S. G.
Falam	5,241	,,
Ootacamund	7,216	,,

Stations.	Height above the sea level in feet.*	Authority for height.†
Bombay Command :—		
Bikanir	828	S. G.
Sibi	495	,,
Jacobabad	181	,,
Hyderabad	134	I. B.
Kurrachee	28	S. G.
Bhuj	...	...
Rajkot	417	S. G.
Deesa	468	,,
Sadra	216	,,
Ahmedabad	170	,,
Baroda	...	...
Surat	...	...
Barwani	609	S. G.
Aliraipore	977	,,
Sirdarpore	1,659	,,
Jhabwa	1,171	,,
Kherwara	1,050	,,
Kotra	1,033	,,
Oodeypore	1,950	,,
Erinpura	869	,,
Neemuch	1,613	,,
Deoli	1,122	,,
Beawar	1,465	,,
Nasirabad	1,461	,,
Ajmere	1,627	,,
Sambhar	1,254	M. O.
Jeypore	1,582	S. G.
Jhalawar	1,242	,,
Indore	1,806	,,
Mhow	1,903	,,
Asirgarh	2,283	,,
Sambalpur	490	,,
Raipur	975	,,
Kamptee	941	,,
Sitabaldi	1,236	,,
Malegaon	1,387	,,
Ahmednagar	2,125	,,
Satara	2,183	,,
Poona	1,909	,,
Kirkee	1,837	,,
Sirur	...	...
Nasik	1,914	S. G.
Thana	24	,,
Bombay	20	,,
Butcher's Island	71	,,
Mir Ali Khel	3,650	I. B.
Fort Sandeman	4,700	,,
Hindubagh	5,075	S. G.
Khan Mohamed Kot	3,431	,,
Murgha	5,100	I. B.
Marratangi	4,500	,,
Loralai	4,450	S. G.
Gumbaz	3,000	I. B.
Quetta	5,511	S. G.
Peshin	5,157	,,
Shelabagh	7,700	I. B.
Spinwana	7,800	,,
Chaman	5,488	S. G.
Mount Abu	3,960	,,
Aden	26	,,
Persian Gulf	...	...
Hyderabad Contingent :—		
Ellichpur	1,218	S. G.
Hingoli	...	...
Jalna	...	...
Aurangabad	1,865	M. O.
Mominabad	...	...
Bolarum	...	...
Raichur	1,310	S. G.

* These are usually the heights above sea-level of the survey-marks or of the mercury-surface in barometer-cisterns in the stations.

† S. G. = Surveyor-General of India ; I. B. = Intelligence Branch of the Quarter-Master-General's Department ; M. D. = Meteorological Department ; M. O. = Medical Officers in charge of Station Hospitals in their Sanitary Reports for 1897.

TABLE XXVI.

RATIOS of COMMANDS.

The ratios of admissions and deaths to strength are taken from Table XXVIII. The actuals will be found in Table XXIX.

	Ratio per 1,000 of the Average Strength.					
	Bengal Command.	Punjab Command.	Madras Command.	Bombay Command.	Hyderabad Contingent.	Army of India.*
Average Annual Strength	26,644	35,454	23,588	26,421	6,554	129,802
—Constantly-sick-rate of each month—						
January	28·1	23·5	29·3	23·5	17·7	25·3
February	26·2	21·6	31·0	24·3	16·4	24·7
March	25·8	18·6	34·6	22·2	15·4	23·9
April	27·1	19·0	32·7	21·8	17·8	24·0
May	25·5	19·9	31·1	21·9	16·8	23·6
June	24·2	22·5	30·1	21·6	15·2	23·8
July	28·1	24·4	32·9	24·2	19·0	26·3
August	34·7	30·3	33·6	30·4	23·8	31·0
September	44·2	43·0	34·2	36·1	28·0	38·7
October	45·1	54·8	33·4	36·2	24·8	43·8
November	47·2	60·8	34·1	37·9	20·0	47·8
December	47·1	54·0	30·8	32·2	18·2	41·4
Of the year	33·1	30·6	32·3	27·4	19·3	31·5
—Admission-rate of the year—						
Influenza	3·1	·1	1·3	17·4	18·2	5·4
Cholera	·4	...	2·3	·9	2·7	·8
Small-pox	·6	·6	·3	·4	...	·4
Enteric Fever	·3	·9	·1	·2	...	·4
Intermittent Fever	363·9	400·8	214·7	329·2	226·3	346·9
Remittent Fever	13·2	23·7	7·1	16·4	13·1	15·9
Simple Continued Fever	9·0	5·3	20·7	10·2	2·6	9·3
Tubercle of the lungs	4·1	3·7	2·0	1·2	1·7	2·6
Pneumonia	11·7	18·0	5·5	11·5	6·9	13·0
Other Respiratory Diseases	19·5	29·1	23·1	29·3	8·2	24·9
Dysentery	53·1	55·2	35·0	42·8	46·5	66·4
Diarrhœa	7·9	11·3	8·0	12·5	1·5	14·0
Hepatic {Abscess	...	...	·1	·2	·2	·1
Hepatic {Congestion and Inflammation	1·7	·6	1·4	1·4	1·1	1·2
Scurvy	·8	2·7	·5	4·4	9·5	2·8
Venereal Diseases	54·9	31·8	48·4	44·6	23·2	40·8
All Causes	833·8	867·4	710·1	821·6	551·3	838·5
—Death-rate of the year—						
Cholera	·26	...	1·57	·57	1·37	·52
Small-pox	·11	·06	...	·03	...	·05
Enteric Fever	·11	·28	...	·08	...	·12
Intermittent Fever	·79	·45	·34	·34	·61	·65
Remittent Fever	·86	1·47	·76	·79	·76	1·04
Simple Continued Fever	·04	·03	·04	·03	...	·03
Circulatory Diseases	·23	·11	·55	·38	·15	·27
Tubercle of the lungs	1·46	1·24	·38	·26	·31	·79
Pneumonia	1·80	4·29	1·14	2·35	·61	2·73
Other Respiratory Diseases	·49	·54	·30	·49	·31	·50
Dysentery	·41	·45	·25	·49	·46	·67
Diarrhœa	·11	·11	·04	·15	...	·17
Hepatic Abscess	...	·03	·04	·19	·15	·06
Anæmia and Debility	·11	·06	·21	·15	·15	·17
All Causes	9·12	13·26	9·45	10·48	6·26	13·12
—Percentage in 100 Admissions—						
Influenza	·37	·01	·18	2·12	3·29	·64
Cholera	·05	...	·33	·12	·50	·10
Small-pox	·07	·07	·04	·05	...	·05
Enteric Fever	·04	·10	·01	·02	...	·05
Intermittent Fever	43·64	46·21	30·23	40·06	41·05	41·37
Remittent Fever	1·58	2·73	1·00	2·00	2·38	1·89
Simple Continued Fever	1·08	·01	2·91	1·24	·47	1·11
Tubercle of the lungs	·49	·42	·29	·15	·30	·31
Pneumonia	1·40	2·07	·78	1·40	1·25	1·55
Other Respiratory Diseases	2·34	3·35	3·25	3·56	1·49	2·97
Dysentery	6·36	6·36	4·93	5·21	8·44	7·92
Diarrhœa	·95	1·30	1·13	1·52	·28	1·67
Hepatic {Abscess	...	...	·01	·02	·03	·01
Hepatic {Congestion and Inflammation	·21	·07	·20	·17	·19	·15
Scurvy	·10	·32	·07	·53	1·72	·33
Venereal Diseases	6·59	3·07	6·82	5·43	4·21	4·86
—Percentage in 100 Deaths—						
Cholera	2·9	...	16·6	5·4	22·0	4·0
Small-pox	1·2	·4	...	·4	...	·4
Enteric Fever	1·2	2·1	...	·7	...	·9
Intermittent Fever	8·6	3·4	3·6	3·2	9·8	5·0
Remittent Fever	9·5	11·1	8·1	7·6	12·2	7·9
Simple Continued Fever	·4	·2	·4	·4	...	·2
Circulatory Diseases	2·5	·9	5·8	3·6	2·4	2·1
Tubercle of the lungs	16·0	9·4	4·0	2·5	4·9	6·0
Pneumonia	19·8	32·3	12·1	22·4	9·8	20·8
Other Respiratory Diseases	5·3	4·0	3·1	4·7	4·9	3·8
Dysentery	4·5	3·4	2·7	4·7	7·3	5·1
Diarrhœa	1·2	·9	·4	1·4	...	1·3
Hepatic Abscess	...	·2	·4	1·8	2·4	·5
Anæmia and Debility	1·2	·4	2·2	1·4	2·4	1·3

* Including those Imperial Service Troops that went on field service. For complete detail of diseases see Table LIII.

TABLE XXVII.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XXVIII. The actuals will be found in Table XXIX.

	Ratio per 1,000 of the Average Strength.												
	I Burma Coast and Bay Islands.	II Burma Inland.	III Assam.	IV Bengal and Orissa.	V Gangetic Plain and Chutia Nagpur.	VI Upper Sub-Himalayan.	VII N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	VIII S.-E. Rajputana, Central India, and Gujarat.	IX Deccan.	X Western Coast.	XI Southern India.	XII Hill Stations.	Army of India.
I.—Average Annual Strength	2,215	5,354	1,791	3,039	6,295	14,704	15,270	12,203	19,137	2,808	8,229	20,430	129,80
II.—Constantly-sick-rate of each month—													
January	21·7	36·0	39·7	35·3	25·8	20·5	24·5	24·2	21·3	29·1	34·7	32·2	25·3
February	25·3	38·2	37·9	36·6	21·7	18·4	22·5	22·8	22·7	28·3	33·6	30·9	24·7
March	30·5	40·5	33·1	32·4	20·6	16·2	17·6	22·5	21·4	29·9	33·6	29·9	23·9
April	29·8	38·3	36·1	25·7	22·1	17·9	17·2	23·8	21·7	25·4	30·7	30·5	24·0
May	26·0	34·1	38·6	36·9	20·1	18·9	15·7	23·6	22·3	27·2	32·0	28·7	23·6
June	28·4	35·1	35·7	32·3	17·9	19·8	18·8	23·3	20·2	27·5	29·4	31·0	23·8
July	28·6	40·5	48·7	37·0	22·3	21·1	21·3	23·0	24·8	37·1	31·5	33·4	26·3
August	28·4	38·2	57·4	40·4	21·7	31·7	26·4	31·4	29·1	39·1	34·4	44·5	31·0
September	32·3	36·7	58·1	34·7	29·1	40·7	44·9	38·0	34·5	41·3	31·9	55·5	38·7
October	25·6	37·9	44·9	37·8	38·3	41·9	66·8	38·7	36·3	34·6	32·9	52·6	43·8
November	32·5	37·5	56·3	48·3	42·5	48·0	76·1	38·3	36·1	34·2	36·4	48·0	47·8
December	35·3	30·9	51·5	48·7	41·5	48·4	67·6	32·5	29·8	30·2	35·5	48·3	41·4
Of the Year	28·6	37·0	44·7	38·1	26·9	26·7	34·6	28·3	26·2	31·7	33·0	37·1	31·5
III.—Admission-rate of the Year—													
Influenza	...	3·4	...	·7	10·6	·7	·1	1·4	6·3	16·7	1·3	19·6	5·4
Cholera	·9	·2	...	...	·8	...	...	1·2	2·6	·7	3·5	·1	·8
Small-pox	·5	...	...	·3	1·0	1·4	·5	·2	·5	...	·4	·1	·4
Enteric Fever	...	·2	2·2	...	·5	...	...	·2	·2	...	·1	1·6	·4
Intermittent Fever	94·8	328·2	477·9	408·3	205·6	295·4	616·0	318·9	287·9	112·5	118·7	412·5	346·9
Remittent Fever	·9	9·0	21·8	4·9	16·4	20·9	13·2	9·2	13·3	49·9	5·0	28·3	15·9
Simple Continued Fever	·9	13·1	12·3	10·5	1·6	3·1	11·7	16·8	8·7	20·7	26·0	3·1	9·3
Tubercle of the lungs	1·4	2·4	3·4	2·0	3·5	4·6	3·7	1·1	1·6	2·8	1·1	4·4	2·6
Pneumonia	4·1	4·9	10·6	5·2	11·3	11·2	26·9	13·3	7·2	2·3	5·3	15·9	13·0
Other Respiratory Diseases	29·3	27·8	25·1	29·4	17·5	19·0	37·1	21·8	12·4	28·8	22·6	37·2	24·9
Dysentery	91·1	24·5	107·8	60·5	50·4	27·2	78·0	39·6	45·9	69·8	28·6	49·6	66·4
Diarrhœa	19·4	9·2	21·8	3·9	7·0	6·1	13·2	8·1	6·3	13·9	6·2	14·8	14·0
Hepatic (Abscess)	...	·2	...	...	...	·1	...	...	·1	·4	·1	·1	·1
Hepatic (Congestion and Inflammation)	...	1·7	5·6	2·3	1·6	·6	·5	1·0	1·5	1·8	1·9	1·3	1·2
Scurvy	...	·2	1·1	1·3	·2	1·4	3·5	3·0	4·3	1·4	...	4·5	2·8
Venereal Diseases	33·4	52·9	97·2	40·5	51·5	36·0	24·4	49·9	47·0	73·4	44·0	47·7	40·8
All Causes	690·3	784·1	1,065·9	934·6	618·1	697·0	1,132·1	783·9	728·5	760·0	611·7	973·4	838·5
IV.—Death-rate of the Year—													
Cholera	·45	·19	...	...	·48	...	...	·66	1·67	...	2·31	·10	·52
Small-pox	...	...	...	...	...	·14	·13	·08	...	...	...	·05	·05
Enteric Fever	...	...	1·12	...	·16	...	...	·16	...	...	...	·49	·12
Intermittent Fever	...	1·31	1·12	1·96	·64	·41	·46	·25	·37	...	·12	·59	·65
Remittent Fever	·45	·56	·56	·33	·95	1·29	·92	·90	1·05	1·07	·85	1·52	1·04
Simple Continued Fever	...	...	...	·33	...	·07	...	·08	...	...	·12	...	·03
Circulatory Diseases	·45	·19	...	...	...	·07	·07	·66	·57	...	·73	·15	·27
Tubercle of the lungs	...	·37	1·12	·65	·79	1·36	·79	·25	·37	1·07	·36	1·91	·79
Pneumonia	·45	1·12	1·68	·98	2·70	2·38	7·14	1·97	1·41	·36	1·46	2·55	2·73
Other Respiratory Diseases	...	·37	...	...	·48	·61	·72	·49	·31	·71	·36	·54	·50
Dysentery	·45	·19	1·68	·65	·32	...	·85	·33	·42	·36	·24	·49	·67
Diarrhœa	...	...	...	...	·16	·20	·13	...	·10	...	...	·10	·17
Hepatic Abscess	...	·19	...	...	...	·07	...	...	·10	·36	...	·15	·06
Anæmia and Debility	...	·19	1·12	...	·16	·07	...	...	·31	...	·24	·05	·17
All Causes	4·51	7·47	12·84	6·21	9·53	8·43	13·56	7·38	12·75	8·55	9·36	14·39	13·12
V.—Percentage in 100 Admissions—													
Influenza	...	·43	...	·07	1·72	·10	·01	·18	·87	2·20	·22	2·01	·64
Cholera	·13	·02	...	...	·13	...	...	·16	·36	·09	·58	·02	·10
Small-pox	·07	...	...	·03	·15	·20	·04	·03	·06	...	·06	·02	·05
Enteric Fever	...	·02	·21	...	·08	...	...	·03	·02	...	·02	·16	·05
Intermittent Fever	13·73	41·85	44·84	43·69	33·26	42·37	54·42	40·69	39·52	14·81	19·41	42·38	41·37
Remittent Fever	·13	1·14	2·04	·52	2·65	3·00	1·17	1·17	1·82	6·36	·81	2·91	1·89
Simple Continued Fever	·13	1·67	1·15	1·12	·26	·45	1·04	2·14	1·19	2·72	4·25	·32	1·11
Tubercle of the lungs	·20	·31	·31	·21	·57	·65	·33	·14	·22	·37	·18	·45	·31
Pneumonia	·59	·62	1·00	·56	1·82	1·61	2·37	1·69	·98	·33	·87	1·63	1·55
Other Respiratory Diseases	4·25	3·55	2·36	3·15	2·83	2·72	3·27	2·78	1·70	3·60	3·69	3·82	2·97
Dysentery	13·21	3·12	10·11	6·47	8·15	3·90	6·89	5·05	6·30	9·18	4·67	5·10	7·92
Diarrhœa	2·81	1·17	2·04	·42	1·13	·87	1·17	1·03	·86	1·83	1·01	1·52	1·67
Hepatic (Abscess)	...	·02	...	...	...	·01	...	...	·01	·05	·02	·02	·01
Hepatic (Congestion and Inflammation)	...	·21	·52	·24	·26	·09	·04	·13	·20	·23	·32	·14	·15
Scurvy	...	·02	·10	·14	·03	·20	·31	·38	·59	·19	...	·40	·33
Venereal Diseases	4·84	6·74	9·11	4·34	8·33	5·16	2·15	6·37	6·46	9·65	7·19	4·90	4·86
VI.—Percentage in 100 Deaths—													
Cholera	10·0	2·5	...	...	5·0	...	...	8·9	13·1	...	24·7	·7	4·0
Small-pox	...	...	...	...	...	1·6	1·0	1·1	...	...	...	·3	·4
Enteric Fever	...	...	8·7	...	1·7	...	...	2·2	...	...	...	3·4	·9
Intermittent Fever	...	17·5	8·7	31·6	6·7	4·8	3·4	3·3	2·9	...	1·3	4·1	5·0
Remittent Fever	10·0	7·5	4·3	5·3	10·0	15·3	6·8	12·2	8·2	12·5	9·1	10·5	7·9
Simple Continued Fever	...	...	...	5·3	...	·8	...	1·1	...	...	1·3	...	·2
Circulatory Diseases	10·0	2·5	...	...	...	·8	·5	8·9	4·5	...	7·8	1·0	2·1
Tubercle of the lungs	...	5·0	8·7	10·5	8·3	16·1	5·8	3·3	2·9	12·5	3·9	13·3	6·0
Pneumonia	10·0	15·0	13·0	15·8	28·3	28·2	52·7	20·7	11·1	4·2	15·6	17·7	20·8
Other Respiratory Diseases	...	5·0	...	...	5·0	7·3	5·3	6·7	2·5	8·3	3·9	3·7	3·8
Dysentery	10·0	2·5	13·0	10·5	3·3	...	6·3	4·4	3·3	4·2	2·6	3·4	5·1
Diarrhœa	...	...	...	...	1·7	2·4	1·0	...	·8	...	...	·7	1·3
Hepatic Abscess	...	2·5	...	...	...	·8	...	...	·8	4·2	...	1·0	·5
Anæmia and Debility	...	2·5	8·7	...	1·7	·8	...	...	2·5	...	2·6	3	1·3

* Including Group Extra-India. For complete detail of diseases see Table LIII.

TABLE XXVIII.

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE, PER 1,000 OF STRENGTH.										
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
ort Blair	302	...	...	...	...	142·4	...	...	...	3·3	...	26·5	29·8	6·6	...	...	...	16·6	9·9	609·3	26·5	6·6	...	3·3	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
oulmein	741	...	1·3	1·3	...	18·9	2·7	...	...	1·3	4·0	9·4	32·4	1·3	...	...	...	4·0	31·0	282·1	18·9	5·4	1·3	21·6	2·7
		...	1·35	...	...	...	1·35	...	1·35	...	...	...	...	...	...	...	...	...	...	4·05		...	...	...	...
angoon	1,172	...	·9	...	...	130·5	...	1·7	11·1	1·7	5·1	42·7	144·2	34·1	...	...	...	55·5	41·0	969·3	35·8	22·2	...	10·2	8·5
		...	...	...	...	...	...	...	...	...	·85	...	·85	...	...	...	...	...	...	5·97		...	...	...	...
ROUP I.—BURMA COAST AND BAY ISLANDS.	2,215	...	·9	·5	...	94·8	·9	·9	5·9	1·4	4·1	29·3	91·1	19·4	...	...	...	33·0	33·4	690·3	28·6	14·4	·5	13·1	5·4
		...	·45	...	...	...	·45	...	·45	...	·45	...	·45	...	...	...	...	...	...	4·51		...	...	...	...
hayetmyo	404	...	...	...	...	99·2	...	...	...	...	4·0	40·5	58·7	...	...	...	...	...	56·7	419·0	24·3	22·3	...	12·1	22·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·02	4·05		...	...	2·02	...
oikaw	74	...	...	...	...	2,229·7	40·5	...	...	...	...	67·6	67·6	...	...	...	13·5	108·1	67·6	2891·9	67·6	13·5	...	54·1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
eng Tung	441	...	...	...	...	1,088·4	52·2	...	2·3	6·8	15·9	47·6	15·9	36·3	2·3	6·8	...	4·5	65·8	1771·0	102·0	9·1	...	27·2	29·5
		...	...	...	...	6·80	4·54	...	...	2·27	2·27	4·54	...	...	2·27	2·27	...	...	...	36·28		...	...	...	...
ort Stedman	434	...	...	...	...	603·7	6·9	...	...	...	...	36·9	20·7	...	...	2·3	...	32·3	48·4	1099·1	46·1	...	2·3	27·6	18·4
		...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	2·30	...	4·61		...	...	...	...
hamakan	30	...	...	...	...	200·0	...	...	33·3	...	...	...	...	...	...	...	...	33·3	...	400·0	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
eiktila	627	...	...	...	1·6	135·6	14·4	...	...	3·2	1·6	22·3	23·9	4·8	...	3·2	...	30·3	63·8	535·9	25·5	4·8	15·9	17·5	25·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·59		...	...	...	...
ort Dufferin	1,693	8·3	...	...	...	184·9	1·8	39·6	1·2	3·5	5·9	24·8	15·4	12·4	...	·6	...	26·6	62·6	675·7	32·5	16·5	9·5	13·6	23·0
		...	...	...	...	·59	...	...	·59	·59	1·18	...	·59	...	...	...	...	...	...	5·32		...	...	...	...
yaukmyaung	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
nabeitkyin	49	...	...	...	...	530·6	...	20·4	...	...	...	...	81·6	...	...	...	...	...	20·4	693·9	20·4	...	...	...	20·4
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
namo	854	...	...	...	...	345·4	...	2·3	1·2	...	4·7	21·1	23·4	4·7	...	...	...	3·5	15·2	694·4	25·8	2·3	1·2	9·4	2·3
		...	...	...	...	1·17	...	...	...	...	3·51	...	...	...	...	...	...	...	...	4·68		...	...	...	...
webo	18	...	...	...	...	55·6	...	...	...	...	...	...	...	...	...	...	...	...	166·7	444·4	55·6	...	...	55·6	111·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
yingyan	613	6·5	1·6	...	...	122·3	11·4	...	...	3·3	3·3	21·2	24·5	8·2	...	3·3	...	22·8	58·7	633·0	35·9	11·4	13·1	19·6	14·7
		...	1·63	...	...	3·26	1·63	...	...	...	...	...	...	...	...	...	...	...	...	9·79		...	...	...	...
alewa	6	...	...	...	...	...	...	...	...	...	...	...	166·7	...	...	...	...	...	166·7	666·7	...	...	...	...	166·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	
ROUP II.—BURMA INLAND	5,354	3·4	·2	...	·2	328·2	9·0	13·1	·9	2·4	4·9	27·8	24·5	9·2	·2	1·7	·2	19·8	52·9	784·1	37·0	10·5	6·7	16·6	19·1
		...	·19	...	...	1·31	·56	...	·19	·37	1·12	·37	·19	...	·19	·19	...	·19	·19	7·47		...	...	·19	...
Manipur	1,015	...	...	...	3·9	302·5	29·6	21·7	...	3·0	15·8	23·6	78·8	17·7	...	7·9	...	26·6	160·6	894·6	46·3	19·7	22·7	22·7	93·6
		...	...	...	1·97	1·97	·99	...	...	1·97	2·96	...	2·96	...	...	·99	...	1·97	...	18·72		...	...	...	...
adiya	74	...	...	...	...	959·5	40·5	...	...	...	...	13·5	27·0	...	...	...	...	...	13·5	1391·9	27·0	...	...	...	13·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Dibrugarh	327	...	...	...	...	951·1	15·3	...	...	9·2	3·1	27·5	79·5	6·1	...	3·1	3·1	48·9	18·3	1522·9	45·9	3·1	...	6·1	9·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9·17		...	...	...	...
ilchar	375	...	...	...	...	445·3	2·7	...	2·7	...	5·3	29·3	226·7	5·07	...	2·7	2·7	29·3	10·7	1066·7	42·7	...	...	2·7	8·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·67		...	...	...	...
ROUP III.—ASSAM	1,791	...	...	...	2·2	477·9	21·8	12·3	·6	3·4	10·6	25·1	107·8	21·8	...	5·6	1·1	30·2	97·2	1065·9	44·7	11·7	12·8	14·5	58·1
		...	...	...	1·12	1·12	·56	...	...	1·12	1·68	...	1·68	...	...	·56	...	1·12	...	12·84		...	...	...	...
Fort William	690	...	...	...	...	463·8	1·4	...	2·9	1·4	8·7	44·9	91·3	11·6	...	...	4·3	5·8	27·5	1062·3	49·3	...	1·4	10·1	15·9
		...	...	...	...	...	...	...	...	1·45	1·45	...	1·45	...	...	...	...	...	...	5·80		...	...	...	...
Alipore	775	...	...	...	...	447·7	14·2	10·3	2·6	6·5	3·9	38·7	77·4	2·6	...	3·9	1·3	9·0	38·7	1163·9	43·9	3·9	1·3	19·4	14·2
		...	...	...	...	3·87	1·29	...	...	1·29	1·29	...	...	...	...	...	...	...	...	7·74		...	...	...	...
Ballygunge	37	54·1	...	...	...	351·4	...	...	...	...	...	...	108·1	...	...	...	...	...	27·0	864·9	27·0	27·0	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Dum Dum	124	...	...	...	...	129·0	16·1	...	...	...	...	24·2	16·1	...	...	...	...	16·1	16·1	250·0	8·1	16·1	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Barrackpore	729	...	...	...	...	439·0	...	32·9	...	...	5·5	5·5	35·7	...	...	4·1	...	4·1	19·2	744·9	30·2	15·1	...	...	4·1
		...	...	...	...	2·74	...	1·37	...	...	1·37	...	1·37	...	...	...	...	...	...	9·60		...	...	...	...

TABLE XXVIII—*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table XXIX

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	2. Death-rate, per 1,000 of Strength. All causes.	Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Buxa	358	...	...	...	...	514·0	2·8	...	...	...	5·6	47·5	58·7	2·8	...	...	...	64·2	5·6	977·7	30·7	2·8	...	2·8	...
		...	...	...	...	2·79	...	...	...	...	...	...	...	...	...	...	...	...	...	2·79		...	...	...	...
Cuttack	345	...	...	2·9	...	142·0	...	...	...	...	2·9	14·5	26·1	2·9	...	2·9	...	8·7	162·3	776·8	40·6	78·3	...	46·4	37·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·90		...	...	...	...
Group IV.—Bengal and Orissa	3,059	·7	...	·3	...	408·3	4·9	10·5	1·3	2·0	5·2	29·4	60·5	3·9	...	2·3	1·3	13·7	40·5	934·6	38·1	14·7	·7	12·7	12·7
		...	...	...	...	1·99	·33	·33	...	·65	·98	...	·65	...	...	...	...	...	...	6·21		...	...	...	...
A.																									
Deranda	420	...	...	...	...	345·2	2·4	...	4·8	2·4	7·1	9·5	28·6	9·5	...	...	...	7·1	14·3	564·3	26·2	4·8	2·4	2·4	4·7
		...	...	...	...	2·38	2·38	...	...	...	2·38	...	...	...	...	...	...	...	...	9·52		...	...	...	...
B.																									
Dinapore	547	...	...	...	...	87·8	47·5	...	...	3·7	5·5	12·8	20·1	5·5	...	3·7	...	7·3	16·5	435·1	20·1	3·7	...	3·7	9·1
		...	...	...	...	...	3·66	...	...	1·83	1·83	...	...	...	...	...	...	...	...	9·14		...	...	...	...
Benares	768	...	...	...	...	67·7	33·9	2·6	...	5·2	5·2	7·8	20·8	1·3	...	2·6	...	10·4	96·4	410·2	19·5	57·3	...	20·8	18·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·60		...	...	...	...
Allahabad	1,243	·8	2·4	·8	...	294·4	·8	2·4	...	...	3·2	11·3	126·3	9·7	...	·8	·8	10·5	35·4	716·0	24·1	4·8	3·2	16·9	10·5
		...	·80	...	...	...	...	...	...	...	·80	...	·80	...	...	...	...	·80	...	7·24		...	...	...	...
Fyzabad	855	...	...	2·3	1·2	131·0	5·8	...	3·5	4·7	17·5	21·1	40·9	1·2	...	...	...	9·4	102·9	614·0	29·2	22·2	22·2	15·2	43·5
		...	...	...	1·17	...	...	...	...	2·34	7·02	2·34	...	...	...	...	...	...	...	17·54		...	...	...	...
Lucknow	1,194	53·6	...	2·5	...	190·1	4·2	·8	...	4·2	12·6	18·4	31·0	7·5	...	2·5	...	5·9	27·6	595·5	23·5	7·5	7·5	4·2	8·4
		...	...	...	...	·84	1·68	...	...	·84	·84	·84	...	·84	...	...	...	...	...	7·54		...	...	...	...
Cawnpore	1,172	1·7	·9	...	1·7	273·9	33·3	3·4	1·7	4·3	21·3	27·3	38·4	8·5	...	1·7	...	19·6	51·2	761·1	38·4	14·5	2·6	15·4	18·8
		...	·85	...	...	1·71	·85	...	...	·85	5·97	...	·85	...	...	...	...	...	...	12·80		...	...	...	...
Fatehgarh	95	...	10·5	...	...	242·1	...	...	...	10·5	21·1	73·7	42·1	42·1	...	...	...	...	105·3	873·7	42·1	42·1	...	31·6	31·6
		...	10·53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10·53		...	...	...	...
Group V.—Gangetic Plain and Chutia Nagpur.	6,295	10·6	·8	1·0	·5	205·6	16·4	1·6	1·1	3·5	11·3	17·5	50·4	7·0	...	1·6	·2	10·5	51·5	618·1	26·9	16·4	5·7	12·5	16·8
		...	·48	...	·16	·04	·95	...	...	·79	2·70	·48	·32	·16	...	...	...	·16	...	9·53		...	...	...	...
A.																									
Bareilly	1,262	...	...	1·6	...	121·2	7·1	...	...	2·4	4·8	4·0	20·6	2·4	...	·8	...	11·9	51·5	427·9	21·4	22·2	...	7·1	22·2
		...	...	·79	...	...	·79	...	...	...	...	...	...	·79	...	...	...	...	...	3·17		...	...	...	...
Roorkee	449	...	...	4·5	...	49·0	8·9	...	...	...	4·5	4·5	6·7	2·2	...	2·2	...	...	44·5	245·0	15·6	8·9	...	8·9	26·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·68		...	...	...	...
Dehra Dun	1,205	1·7	...	2·5	...	185·1	26·6	30·7	·8	23·2	14·1	16·6	17·4	6·6	...	·8	...	3·3	51·5	691·3	30·7	13·3	7·5	5·8	24·9
		...	...	·83	...	·83	2·49	...	...	12·45	...	1·66	...	...	...	...	...	...	...	20·75		...	...	...	...
Meerut	1,213	...	...	...	...	896·1	2·5	...	...	9·9	25·6	39·6	54·4	22·3	...	...	1·6	58·5	67·6	1675·2	59·4	31·3	9·1	14·8	12·4
		...	...	...	...	1·65	...	...	...	...	3·30	·82	...	...	...	...	...	...	...	7·42		...	...	...	...
Delhi	783	10·2	...	...	...	532·6	54·9	...	1·3	1·3	5·1	17·9	33·2	1·3	...	3·8	3·8	3·8	14·1	965·5	25·5	1·3	1·3	5·1	6·4
		...	...	...	...	1·28	1·28	...	...	...	3·83	1·28	...	...	...	1·28	...	...	...	8·94		...	...	...	...
Umballa	1,113	...	...	...	...	188·7	17·1	...	...	...	1·8	5·4	9·9	·9	...	...	...	9·0	20·7	445·6	18·0	11·7	...	3·6	5·4
		...	...	...	...	...	2·69	...	...	...	·90	...	...	...	...	...	...	...	...	3·59		...	...	...	...
B.																									
Ludhiana	42	...	...	...	...	523·8	...	...	...	...	23·8	...	23·8	...	...	...	...	...	...	47·6	23·8	...	...	...	47·6
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	738·1		...	...	...	...
Jullundur	745	...	...	...	...	123·5	4·0	...	...	6·7	2·7	13·4	29·5	6·7	...	...	1·3	13·4	18·8	416·1	17·4	6·7	2·7	1·3	8·1
		...	...	...	...	...	1·34	...	...	1·34	...	...	...	...	...	...	...	...	...	4·03		...	...	...	...
Ferozepore	1,668	...	...	...	...	287·2	10·2	5·4	1·2	2·4	9·6	21·0	25·8	3·0	...	...	·6	18·6	48·0	753·0	27·6	10·2	12·0	8·4	17·4
		...	...	...	...	...	1·80	·60	...	...	2·40	1·20	...	·60	...	...	...	...	...	6·59		...	...	...	...
Mecan Meer	1,645	...	...	6·1	...	358·1	66·3	...	...	2·4	12·8	16·4	28·0	1·8	...	...	3·0	10·3	21·9	704·0	23·7	4·3	3·0	3·6	10·9
		...	...	...	...	·61	...	...	...	·61	3·65	·61	...	·61	...	...	...	...	...	7·29		...	...	...	...
Amritsar	182	...	...	...	...	137·4	5·5	...	...	11·0	16·5	...	65·9	...	...	...	...	5·5	16·5	516·5	16·5	5·5	...	...	11·0
		...	...	...	...	...	...	...	...	5·49	10·98	...	...	...	...	...	...	...	..	16·48		...	...	...	...
Kangra	14	...	...	...	...	71·4	71·4	...	...	...	...	...	...	...	...	...	...	...	71·4	285·7	...	71·4	...	...	...
		...	...	...	...	...	71·43	...	...	...	...	...	...	...	...	...	...	...	...	71·43		...	...	...	...
Sialkot	1,325	...	...	...	...	106·4	17·4	...	...	·8	8·3	7·5	12·1	1·5	...	·8	1·5	4·5	17·4	360·8	15·8	10·6	...	3·0	3·8
		...	...	...	...	·75	1·51	...	...	·75	3·02	...	...	...	...	...	...	·75	·75	10·57		...	...	...	·75
Jhelum	1,335	...	...	1·5	...	162·5	11·2	...	·7	·7	6·7	15·7	12·7	1·5	...	·7	...	7·5	35·2	447·9	18·7	8·2	3·7	8·2	15·0
		...	...	...	...	...	...	...	·75	...	·75	...	...	...	...	...	...	...	...	3·75		...	...	...	...
Rawalpindi	1,639	...	...	·6	...	390·5	16·5	...	·6	3·1	23·8	47·6	53·1	17·7	·6	·6	3·7	32·9	34·2	910·9	36·0	9·8	·6	1·8	22·0
		...	...	...	...	...	2·44	...	...	...	5·49	1·22	...	...	·61	...	...	...	...	12·81		...	...	...	...
Attock	86	...	...	...	...	290·7	11·6	...	...	11·6	11·6	34·9	34·9	23·3	...	...	...	11·6	46·5	697·7	23·3	23·3	...	...	23·3
		...	...	...	...	...	...	...	...	11·63	11·63	...	...	...	...	...	...	...	...	23·26		...	...	...	...
Group VI.—Upper Sub-Himalayan.	14,704	·7	...	1·4	...	295·4	20·9	3·1	·4	4·6	11·2	19·0	27·2	6·1	·1	·6	1·4	15·8	36·0	697·0	26·7	11·8	3·7	5·8	14·7
		..	...	·14	...	·41	1·29	·07	·07	1·36	2·38	·61	...	·20	·07	·07	...	·07	·07	8·43		...	...	...	·07

Stations and Groups.	Average annual strength.	1. Admission-rate.																		2. Death-rate, per 1,000 of strength.					
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All causes.	Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
A.																									
Mardan	1,111	...	...	...	...	252·0	6·3	...	1·8	6·3	12·6	30·6	35·1	10·8	...	·9	·9	7·2	27·0	597·7	27·9	1·8	·9	9·0	15·3
		...	...	...	...	...	·90	...	...	2·70	2·70	...	...	...	...	...	...	...	...	9·00					
Nowshera	1,036	...	...	...	...	362·9	3·9	...	1·0	5·8	12·5	27·0	74·3	13·5	...	...	...	26·1	22·2	746·1	31·9	6·8	1·9	4·8	8·7
		...	...	...	...	...	·97	...	...	...	2·99	...	1·93	...	...	...	...	...	...	6·76					
Shabkadar	165	...	...	...	...	1036·4	...	...	...	...	...	12·1	48·5	48·5	...	...	...	12·1	48·5	1665·7	24·2	12·1	...	6·1	30·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42·42					
Peshawar	2,681	...	...	·7	...	498·3	17·5	...	1·5	1·9	32·1	16·4	68·6	7·8	...	·7	·7	18·6	24·6	895·6	36·9	7·5	3·7	4·1	9·3
		...	...	·37	...	·75	·75	...	·37	·75	9·32	·37	·75	...	...	...	...	...	...	14·92					
Hari Singh-Ka-Burj.	98	...	...	...	...	1602·0	...	...	...	...	51·0	61·2	428·6	469·4	...	...	...	30·6	61·2	2969·4	20·4	20·4	...	20·4	20·4
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10·20					
Fort Jamrud	268	...	...	...	...	332·1	7·5	...	...	3·7	74·6	33·6	145·5	67·2	...	...	...	48·5	56·0	940·3	7·5	14·9	3·7	14·9	22·4
		...	...	...	...	...	...	...	...	...	7·46	...	...	...	...	...	...	...	...	7·46					
Bara	23	...	...	...	...	739·1	...	...	...	...	...	...	130·4	...	...	...	...	...	...	913·0	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43·48					
Matanni	8	...	...	...	...	250·0	...	...	...	...	...	...	250·0	...	...	...	...	...	...	500·0	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Kohat	1,620	...	...	·6	...	279·6	28·4	6·2	...	4·9	30·9	55·6	65·4	6·2	...	1·2	6·8	13·6	17·9	847·5	25·3	6·2	·6	3·7	7·4
		...	...	·62	...	·62	1·85	...	...	·62	9·26	1·23	...	...	...	...	...	...	...	17·28					
Bahadur Khel	37	...	...	...	..	243·2	...	...	...	...	27·0	54·1	...	...	...	...	...	27·0	...	513·5	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Thal	40	...	...	...	...	575·0	75·0	...	...	25·0	25·0	...	100·0	...	...	...	...	25·0	25·0	1025·0	50·0	25·0	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Edwardesabad	1,493	...	...	...	...	1314·8	12·1	79·7	1·3	3·3	48·9	25·1	70·3	19·4	...	...	4·7	52·9	14·1	2001·3	58·9	4·0	1·3	4·0	4·7
		...	...	...	...	...	2·68	...	...	1·34	12·73	·67	2·68	1·34	...	...	...	...	...	24·78					
Jani Khel	37	...	...	27·0	...	702·7	...	...	...	...	...	...	...	81·1	...	...	...	...	...	1054·1	27·0	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Dera Ismail Khan	1,660	·6	...	...	...	1076·5	13·3	·6	·6	6·0	27·7	69·3	113·9	12·0	...	...	9·0	17·5	18·1	1779·5	45·2	4·2	1·2	3·6	9·0
		...	...	...	...	1·20	...	...	...	1·81	7·83	...	1·20	...	...	...	...	...	...	13·25					
Tank, Jatta, and Draband.	183	...	...	...	...	442·6	10·9	...	...	10·9	21·9	21·9	60·1	...	...	...	...	...	5·5	770·5	21·9	...	...	...	5·5
		...	...	...	...	...	...	...	...	5·46	5·46	...	...	...	...	...	...	...	...	10·93					
Mangrota	39	...	...	...	...	25·6	25·6	...	...	...	...	...	...	...	...	...	...	...	...	179·5	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Dera Ghazi Khan	804	...	...	...	...	369·4	16·2	54·7	2·5	2·5	11·2	47·3	85·8	8·7	...	...	1·2	24·9	7·5	967·7	27·4	1·2	3·7	1·2	1·2
		...	...	...	...	...	1·24	...	...	...	2·49	1·24	1·24	...	...	...	...	...	...	9·95					
Mooltan	1,273	...	...	·8	...	654·4	11·8	2·4	...	3·1	25·1	30·6	61·3	1·6	...	..	4·7	14·9	18·9	1065·2	28·3	7·1	2·4	3·1	6·3
		...	...	...	...	·79	...	...	...	..	10·21	1·57	·79	...	...	..	...	...	...	14·14					
Bikanir	39	...	...	25·6	...	76·9	...	...	...	...	...	...	51·3	...	...	...	25·6	...	...	205·1	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
B.																									
Sadda	144	...	...	...	...	402·8	...	...	...	...	...	20·8	27·8	20·8	...	6·9	6·9	...	6·9	1250·0	41·7	6·9	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·94					
Idak	41	...	...	24·4	...	146·3	48·8	...	...	...	...	...	73·2	...	...	...	...	...	48·8	707·3	24·4	...	...	...	48·8
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Saidgi	56	...	...	...	...	285·7	...	...	...	...	17·9	35·7	71·4	...	...	...	...	17·9	...	589·3	17·9	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Jandola	212	...	...	...	...	1344·3	...	...	...	4·7	28·3	51·9	452·8	18·9	...	...	9·4	42·5	23·6	2424·5	51·9	...	...	18·9	4·7
		...	...	...	...	...	...	...	...	...	4·72	4·72	...	...	...	...	...	...	...	9·43					
Khajuri Kach	284	...	...	...	...	514·1	21·1	...	3·5	3·5	59·9	77·5	137·3	...	...	...	...	7·0	14·1	1035·2	28·2	7·0	...	...	7·0
		...	...	...	..	...	...	...	...	...	14·08	...	...	...	...	...	...	...	...	17·61					
Sibi	240	...	...	...	...	279·2	8·3	...	...	...	16·7	50·0	50·0	8·3	...	...	...	33·3	54·2	708·3	29·2	16·7	4·2	8·3	25·0
		...	...	...	...	...	4·17	...	...	...	4·17	...	4·17	...	...	...	...	...	...	12·50					
C.																									
Jacobabad	627	...	...	...	...	794·3	1·6	...	...	4·8	27·1	27·1	51·0	...	...	...	3·2	3·2	35·1	1212·1	36·7	...	1·6	6·4	27·1
		...	...	...	...	1·59	...	...	...	...	4·78	...	...	...	...	...	...	...	...	6·38					
Hyderabad	447	...	...	...	...	234·9	4·5	4·5	...	2·2	4·5	15·7	40·3	...	...	...	2·2	2·2	82·8	590·6	31·3	13·4	2·2	26·8	40·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·24					
Kurrachee	605	...	...	...	...	532·2	14·9	...	...	...	14·9	64·5	41·3	5·0	...	1·7	5·0	9·9	46·3	1087·6	29·8	5·0	8·3	13·2	19·8
		...	...	...	...	...	1·65	...	...	...	6·61	4·96	...	...	...	...	...	...	...	13·22					
Group VII.—N.-W. Frontier, Indus Valley, and North-Western Rajputana	15,270	·1	...	·5	...	616·0	13·2	11·7	·9	3·7	26·9	37·1	78·0	13·2	...	·5	3·5	19·8	24·4	1132·1	34·6	5·7	2·2	5·6	10·9
		...	...	·13	...	·46	·92	...	·07	·79	7·14	·72	·85	·13	...	...	...	...	...	13·56					

TABLE XXVIII—*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table XXIX.

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All causes.	2. Death-rate, per 1,000 of strength. Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
A																									
Bhuj	628	...	3·2	...	...	76·4	...	93·9	3·2	...	14·3	20·7	19·1	...	...	...	19·1	8·0	52·5	622·6	35·0	11·1	8·0	8·0	25·5
		...	...	...	...	...	...	...	...	...	1·59	...	...	...	...	...	...	...	...	1·59		...	...	...	...
Rajkot	478	...	...	...	...	575·3	8·4	10·5	2·1	...	14·6	48·1	35·6	6·3	...	2·1	10·5	16·7	64·9	1205·0	35·6	35·6	4·2	18·8	6·3
		...	...	...	...	...	2·09	...	...	...	2·09	...	...	...	...	...	...	...	...	4·18		...	...	...	...
Deesa	897	...	...	1·1	1·1	249·7	43·5	15·6	1·1	3·3	10·0	17·8	22·3	10·0	...	3·3	2·2	17·8	24·5	758·1	22·3	4·5	3·3	2·2	14·5
		...	...	...	1·11	1·11	2·23	...	...	1·11	...	...	...	...	...	1·11	...	...	...	7·80		...	...	...	...
Sadra	69	...	...	...	...	115·9	...	...	...	...	14·5	...	...	...	...	...	...	...	29·0	260·9	14·5	...	...	...	29·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Ahmedabad	525	...	...	...	...	283·8	9·5	...	3·8	...	11·4	17·1	24·8	5·7	...	1·9	...	7·6	64·8	693·3	32·4	13·3	9·5	17·1	24·8
		..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·90		..	...	...	..
Baroda	590	...	...	...	...	339·0	10·2	5·1	...	...	1·7	40·7	39·0	1·7	...	1·7	1·7	6·8	32·2	728·8	27·1	10·2	1·7	16·9	3·4
		...	...	...	...	...	1·69	...	...	...	1·69	1·69	1·69	...	...	...	...	...	...	8·47		..	...	...	...
Surat	13	...	...	...	...	153·8	...	76·9	...	...	...	...	76·9	230·8	...	...	...	..	...	538·5	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
B																									
Parwani	73	...	...	...	...	...	...	...	...	...	13·7	13·7	...	..	...	...	...	...	...	41·1	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Alirajpore	37	...	...	...	...	54·1	27·0	...	...	...	...	...	...	...	...	...	...	...	27·0	270·3	...	...	...	...	27·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Sirdarpore	349	...	14·3	...	...	194·8	5·7	...	...	...	48·7	54·4	28·7	37·2	...	5·7	...	5·7	45·8	959·9	25·8	17·2	...	...	28·7
		...	5·73	...	...	...	...	...	...	...	2·87	...	...	...	...	...	...	...	...	14·33		...	...	...	...
Jhabwa	39	..	...	...	...	153·8	...	...	...	...	25·6	25·6	...	...	...	...	...	...	...	333·3	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Kherwara	350	...	...	2·9	...	200·0	...	2·9	14·3	...	14·3	14·3	...	...	...	...	...	5·7	5·7	551·4	20·0	...	2·9	...	2·9
		...	...	...	...	...	...	...	2·86	...	...	...	...	...	...	...	...	...	...	2·86		...	...	...	...
Kotra	162	...	...	...	...	166·7	6·2	...	...	...	...	18·5	6·2	...	...	...	...	...	6·2	382·7	12·3	6·2	...	...	...
		...	...	...	...	...	6·17	...	...	...	...	...	...	...	...	...	...	...	...	6·17		...	...	...	...
Oodeypore	62	...	...	...	...	..	...	...	...	...	32·3	...	...	..	...	...	...	...	...	112·9	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	32·26	...	...	...	...	...	...	...	...	32·26		...	...	...	...
Erinpura	574	26·1	...	1·7	...	106·3	3·5	...	1·7	5·2	19·2	36·6	5·2	29·6	...	...	1·7	10·5	13·9	550·5	24·4	3·5	...	...	10·5
		...	...	1·74	...	...	...	...	1·74	...	...	...	...	...	...	...	...	...	...	8·71		...	...	...	...
Neemuch	510	...	...	...	2·0	443·1	3·9	19·6	2·0	2·0	13·7	3·9	33·3	7·8	...	...	2·0	9·8	29·4	951·0	35·3	...	11·8	7·8	9·8
		...	...	...	1·96	...	...	...	1·96	...	...	...	...	...	...	...	...	...	...	3·92		...	...	...	...
Deoli	537	...	...	...	...	312·8	1·9	...	...	...	9·3	11·2	14·9	1·9	...	...	7·4	33·5	35·4	743·0	24·2	7·4	9·3	7·4	11·2
		...	...	...	...	...	...	...	...	...	3·72	...	...	...	...	...	...	...	...	3·72		...	...	...	...
Beawar	47	...	...	...	...	63·8	...	...	...	...	42·6	...	...	...	...	...	...	...	...	127·7	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	42·55	...	...	...	...	...	...	...	...	42·55		...	...	...	...
Nasirabad	683	...	...	...	...	70·3	1·5	...	2·9	...	10·2	5·9	19·0	2·9	...	...	4·4	5·9	41·0	411·4	19·0	14·6	8·8	7·3	10·2
		...	...	...	...	...	...	...	1·46	...	...	...	...	...	...	...	...	...	...	4·39		...	...	...	...
Ajmere	496	...	...	...	...	78·6	...	...	6·0	4·0	30·2	36·3	12·1	10·1	...	...	...	...	34·3	467·7	16·1	16·1	...	4·0	14·1
		...	...	...	...	...	...	...	...	...	6·05	...	...	...	...	...	...	...	...	6·05		...	...	...	...
Sambhar	21	...	...	...	...	142·9	...	...	...	...	...	...	...	...	...	...	...	...	...	190·5	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Jeypore	59	...	...	...	...	220·3	...	...	...	...	...	...	50·8	...	...	...	...	...	67·8	440·7	16·9	33·9	...	...	33·9
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Agra	752	...	1·3	...	...	357·7	10·6	...	2·7	...	21·3	29·3	97·1	4·0	...	1·3	5·3	8·0	22·6	872·3	30·6	2·7	6·6	...	13·3
		...	1·33	...	...	...	2·66	...	2·66	...	2·66	3·99	...	...	...	...	...	...	...	13·30		...	...	...	...
Gwalior	27	...	...	...	...	851·9	37·0	...	...	...	...	...	37·0	...	...	...	...	...	37·0	1037·0	37·0	...	...	...	37·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Jhansi	658	...	3·0	...	1·5	535·0	...	...	...	1·5	1·5	10·6	86·6	6·1	...	...	...	10·6	48·6	1048·6	38·0	4·6	18·2	4·6	21·3
		...	1·52	...	...	1·52	...	...	...	1·52	...	...	...	...	...	...	...	...	...	7·60		...	...	...	...
Nowgong	966	...	...	...	...	365·2	2·1	...	...	...	8·3	29·0	47·6	4·1	...	...	1·0	6·2	93·2	1032·1	42·4	11·4	41·4	8·3	32·1
		...	...	...	...	1·04	1·04	...	...	...	...	1·04	1·04	...	...	...	...	...	...	6·21		...	...	...	...
Jhalawar	166	...	...	...	...	1102·4	24·1	...	6·0	...	12·0	24·1	54·2	18·1	...	...	...	6·0	150·6	1686·7	36·1	18·1	78·3	12·0	42·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6·02	6·02		...	...	6·02	...
Goona	323	...	3·1	...	...	458·2	3·1	...	3·1	3·1	...	3·1	34·1	6·2	...	...	...	9·3	61·9	972·1	27·9	6·2	12·4	18·6	24·8
		...	3·10	...	...	...	...	...	...	3·10	...	...	...	...	...	...	...	...	...	9·29		...	...	...	...
Agar	286	...	...	...	...	108·4	21·0	3·5	17·5	...	3·5	14·0	28·0	10·5	...	3·5	...	10·5	59·4	423·1	17·5	17·5	14·0	10·5	17·5
		...	...	...	...	...	...	...	3·50	...	...	...	...	...	...	...	...	...	...	3·50		...	...	...	...
Sehore	713	2·8	2·8	...	...	66·0	8·4	122·0	...	1·4	9·8	2·8	56·1	12·6	...	1·4	1·4	12·6	50·5	1148·7	26·6	25·2	...	8·4	16·8
		...	1·40	...	...	...	1·40	...	...	...	1·40	...	...	...	...	...	...	...	...	4·21		...	...	...	...

Stations and Groups.	Average annual strength.	1. Admission-rate.															2. Death-rate, per 1,000 of strength.								
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All causes.	Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
dore . .	271	...	3·7	...	...	147·6	11·1	11·1	...	...	11·1	36·9	169·7	14·8	...	...	3·7	...	129·2	726·9	29·5	88·6	...	22·1	18·5
		...	3·69	...	...	...	3·69	3·69	...	...	7·38	...	7·38	...	...	...	...	...	...	25·83		...	...	...	...
how . . .	842	...	1·2	...	...	223·3	20·2	24·9	2·4	1·2	21·4	27·3	53·4	7·1	...	1·2	...	...	99·8	743·5	34·4	34·4	20·2	23·8	21·4
		...	1·19	...	...	...	1·19	...	1·19	...	7·13	1·19	...	...	...	...	...	...	...	14·25		...	...	...	...
roup VIII.— outh-Eastern ajputana, entral India, nd Gujarat .	12,203	1·4	1·2	·2	·2	318·9	9·2	16·8	2·4	1·1	13·3	21·3	39·6	8·1	...	1·0	3·0	8·9	49·9	783·9	28·3	14·0	10·6	8·5	16·8
		...	·60	·08	·16	·25	·90	·08	·66	·25	1·97	·49	·33	...	...	·08	...	...	·08	7·38		...	...	·08	...
A																									
irgarh . .	50	...	...	...	...	500·0	20·0	...	...	...	...	20·0	20·0	...	...	...	...	40·0	20·0	960·0	20·0	...	...	...	20·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
ugor . .	1,059	...	...	·9	...	588·3	1·9	5·7	4·7	...	24·6	18·9	88·8	6·6	...	·9	3·8	18·9	85·9	1183·2	42·5	20·8	8·5	29·3	27·4
		...	...	...	...	...	...	...	·94	...	7·55	...	·94	...	...	...	...	...	...	11·33		...	...	...	...
tna . . .	29	...	...	...	...	1,034·5	34·5	...	...	...	...	...	206·9	34·5	...	...	...	34·5	34·5	1862·1	69·0	...	34·5	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
bbulpore .	780	...	...	...	..	271·8	1·3	...	2·6	1·3	9·0	20·5	85·9	...	...	...	...	17·9	98·7	689·7	28·2	30·8	6·4	28·2	33·3
		...	...	...	...	...	1·28	...	2·56	1·28	...	...	...	...	...	...	...	...	...	8·97		...	...	...	...
mbalpur .	248	...	...	...	...	153·2	16·1	16·1	...	...	12·1	12·1	20·2	4·0	...	4·0	...	4·0	20·2	411·3	16·1	4·0	...	8·1	8·1
		...	...	...	...	...	4·03	...	...	...	...	...	...	...	...	...	...	...	...	8·06		...	...	...	...
aipur . .	378	...	10·6	...	...	240·7	7·9	...	5·3	2·6	18·5	...	18·5	10·6	...	...	2·6	...	222·2	640·2	34·4	113·8	...	39·7	68·8
		...	10·58	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15·87		...	...	...	...
amptee . .	757	...	1·3	1·3	...	819·0	35·7	...	6·6	...	4·0	15·9	11·9	4·0	...	...	...	19·8	103·0	1239·1	44·9	37·0	1·3	30·4	34·3
		...	...	...	...	1·32	1·32	...	3·96	...	2·64	2·64	...	...	...	...	...	2·64	1·32	17·17		...	...	...	1·32
itabaldi . .	86	...	...	...	...	895·3	23·3	23·3	11·6	11·6	...	34·9	34·9	11·6	...	...	...	...	81·4	1488·4	23·3	34·9	...	11·6	34·9
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
B.																									
llichpur . .	802	...	...	...	...	482·5	2·5	1·2	1·2	3·7	15·0	11·2	57·4	1·2	...	...	17·5	1·2	53·6	864·1	23·7	15·0	...	12·5	26·2
		...	...	...	...	...	...	...	1·25	...	1·25	...	...	...	...	...	...	...	...	3·74		...	...	...	...
ingoli . .	1,257	...	4·8	...	...	194·1	6·4	2·4	...	...	4·0	6·4	30·2	4·8	...	·8	6·4	2·4	23·9	506·8	19·1	9·5	...	3·2	11·1
		...	2·39	...	...	·80	...	...	...	...	·80	·80	1·59	...	...	...	...	·80	·80	8·75		...	...	·80	...
alna . . .	721	...	...	...	...	126·2	15·3	...	...	...	5·5	6·9	18·0	...	1·4	...	1·4	1·4	40·2	359·2	18·0	19·4	...	8·3	12·5
		...	...	...	...	...	1·39	...	...	...	...	1·39	...	...	1·39	...	...	...	...	5·55		...	...	...	...
urangabad .	1,260	...	6·3	...	...	168·3	2·4	4·0	·8	2·4	6·3	5·6	31·0	...	...	2·4	2·4	2·4	13·5	397·6	15·9	3·2	...	2·4	7·9
		...	3·97	...	...	1·59	...	...	...	1·59	...	...	...	...	...	...	...	...	...	7·94		...	...	...	...
alegaon . .	94	...	10·6	...	...	212·8	10·6	...	...	...	...	21·3	42·6	31·9	...	...	...	...	21·3	787·2	21·3	10·6	...	...	10·6
		...	10·64	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10·64		...	...	...	...
hmednagar .	499	...	2·0	...	6·0	40·1	2·0	62·1	2·0	2·0	2·0	6·0	28·1	6·0	...	2·0	...	8·0	32·1	390·8	14·0	...	6·0	8·0	18·0
		...	...	...	...	...	...	...	...	2·00	2·00	...	...	...	...	...	...	...	...	8·02		...	...	...	...
oeminabad .	436	...	2·3	...	...	534·4	22·9	...	2·3	...	6·9	2·3	48·2	...	...	4·6	16·1	...	4·6	981·7	39·0	2·3	2·3	...	...
		...	...	...	...	...	4·59	...	...	...	...	...	...	...	...	2·29	...	...	...	9·17		...	...	...	...
olarum . .	1,228	96·9	2·4	...	...	184·0	39·1	5·7	...	1·6	5·7	13·0	75·7	2·4	...	·8	9·8	4·9	13·0	640·1	19·5	5·7	1·6	2·4	3·3
		...	·81	...	...	·81	...	...	...	...	...	...	...	...	...	...	...	...	...	2·44		...	...	...	...
ecunderabad .	3,323	·3	4·5	·9	...	409·3	12·3	7·5	2·4	3·0	4·2	12·3	40·0	5·4	...	1·5	3·3	20·2	33·1	870·0	29·5	6·0	...	5·4	21·7
		...	3·01	...	...	...	·30	...	·60	·30	·90	·30	·30	·30	...	...	...	·30	·30	10·23		...	...	·30	...
aichur . .	605	...	...	...	...	105·8	6·6	1·7	...	5·0	8·3	13·2	84·3	...	...	...	28·1	3·3	19·8	433·1	16·5	5·0	...	9·9	5·0
		...	...	...	...	...	3·31	...	...	...	3·31	...	1·65	...	...	...	...	...	...	8·26		...	...	...	...
Belgam . .	1,166	...	2·6	...	...	66·0	20·6	...	5·1	2·6	3·4	7·7	15·4	1·7	...	...	...	57·5	103·8	581·5	25·7	56·6	...	16·3	30·9
		...	2·57	...	...	...	5·15	...	·86	·80	1·72	...	...	...	...	...	...	...	...	34·31		...	...	...	...
Satara . .	468	...	4·3	...	...	235·0	...	...	...	...	2·1	8·5	12·8	4·3	2·1	4·3	2·1	12·8	42·7	623·9	27·8	4·3	...	6·4	32·1
		...	4·27	...	...	...	...	...	...	...	...	...	...	...	2·14	...	...	...	...	8·55		...	...	...	...
Poona . .	2,328	·4	·4	...	...	195·4	20·2	33·1	1·3	1·3	9·0	15·0	40·4	21·5	...	1·3	·9	12·0	32·2	778·4	26·2	8·2	5·2	5·2	13·7
		...	...	...	...	...	1·72	...	...	·43	2·15	...	·45	...	...	...	...	·80	...	21·05		...	...	...	...
Kirkee . .	976	...	2·0	1·0	...	253·1	5·1	4·1	3·1	...	5·1	30·7	102·5	11·3	...	7·2	...	25·6	52·3	892·4	32·8	13·3	4·1	8·2	26·6
		...	2·05	...	...	2·05	1·02	...	1·02	...	1·02	1·02	2·05	...	...	...	...	...	...	18·44		...	...	...	...
Sirur . . .	517	...	3·9	3·9	...	50·3	15·5	...	...	...	...	...	29·0	1·9	...	1·9	1·9	3·9	21·3	419·7	19·3	...	...	1·9	19·3
		...	1·93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23·21		...	...	...	...
Nasik . . .	70	...	...	14·3	...	314·3	...	...	14·3	...	14·3	57·1	14·3	42·9	...	...	...	14·3	14·3	600·0	28·6	...	...	14·3	...
		...	...	...	...	...	...	...	...	...	14·29	...	...	14·29	...	...	...	...	...	28·57		...	...	...	...
Group IX.— Deccan.	19,137	6·3	2·6	·5	·2	287·9	13·3	8·7	2·1	1·0	7·2	12·4	45·9	6·3	·1	1·5	4·3	14·1	47·0	728·5	26·2	15·4	2·0	10·0	19·6
		...	1·67	...	...	·37	1·05	...	·57	·37	1·41	·31	·42	·10	·10	·05	...	·31	·16	12·75		...	...	·10	·05

TABLE XXVIII—*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. **For actuals see Table XXIX**

Stations and Groups.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	2. Death-rate, per 1,000 of strength. Anæmia and Debility.	Venereal Diseases.	All causes.	Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Thana	90	...	...	...	...	66·7	...	...	...	...	...	...	211·1	...	...	11·1	...	...	44·4	544·4	22·2	...	11·1	...	..
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	11·11	...	...	...	11·11		...	...	...	..
Bombay	1,383	34·0	1·4	...	··	180·0	96·2	2·9	·7	2·2	4·3	39·0	100·5	23·9	·7	2·9	2·9	13·0	49·9	875·6	31·1	26·7	·7	5·8	16·
		...	...	...	...	...	2·17	...	...	·72	·72	·72	...	...	·72	·72	...	...	...	12·29		...	...	...	..
Butcher's Island	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	125·0	...	...	...	...	..
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Cannanore	649	...	...	...	...	70·9	1·5	7·7	1·5	7·7	1·5	21·6	29·3	7·7	...	...	...	16·9	134·1	617·9	41·6	40·1	18·5	49·3	26·
		...	...	...	...	...	...	...	...	3·08	...	1·54	1·54	...	...	...	...	...	...	7·70		...	...	...	..
Tricheor	89	...	...	...	...	101·1	56·2	...	11·2	...	...	11·2	22·5	11·2	...	...	...	33·7	33·7	775·3	33·7	11·2	...	...	22·
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Quilon	511	...	...	...	...	...	2·0	92·0	2·0	...	...	17·6	27·4	...	...	...	...	...	74·4	659·5	23·5	11·7	...	5·9	56·
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1·96		...	...	...	..
Trivandrum	77	...	...	...	...	77·9	...	26·0	13·0	...	...	39·0	39·0	...	...	...	...	...	64·9	857·1	26·0	39·0	...	26·0	..
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	..
Group X.—Western Coast.	2,808	16·7	·7	...	...	112·5	49·9	20·7	1·8	2·8	2·5	28·8	69·8	13·9	·4	1·8	1·4	11·4	73·4	760·0	31·7	26·0	5·0	16·0	26
		...	...	...	...	...	1·07	...	...	1·07	·36	·71	·36	...	·36	·71	...	...	...	8·55		..	...	...	..
A.																									
Bellary	1,296	...	9·3	...	...	126·5	·8	14·7	2·3	...	1·5	10·8	25·5	3·9	...	1·5	...	13·1	34·0	496·1	30·9	9·3	...	7·7	17·
		...	4·63	...	...	...	...	...	·77	...	...	·77	...	...	...	...	...	...	...	7·72		...	...	...	..
Bangalore	3,151	·6	·6	1·0	·3	141·2	9·2	27·3	8·3	...	9·2	25·7	42·2	10·8	·3	3·2	...	43·8	32·4	695·3	39·7	7·0	2·9	7·6	14
		...	·32	...	...	...	1·27	...	1·27	...	2·86	·32	·63	...	...	·32	...	·63	...	9·20		...	...	...	...
B.																									
Trichinopoly	1,223	7·4	1·6	...	...	143·9	2·5	1·6	1·6	·8	1·6	33·5	22·1	...	...	1·6	...	...	55·6	545·4	21·3	7·4	10·6	14·7	22·
		...	1·63	...	...	...	·82	...	...	...	...	·82	...	...	...	...	...	...	...	5·72		...	...	...	...
St. Thomas' Mount.	744	...	1·3	...	...	87·4	6·7	...	1·3	2·7	...	36·3	25·5	8·1	...	...	...	55·1	37·6	651·9	37·6	6·7	...	25·5	5·
		...	1·34	...	...	1·34	...	...	...	...	...	...	...	...	...	...	...	...	...	2·69		...	...	...	...
Madras	878	...	...	...	...	15·9	1·1	120·7	1·4	4·6	2·3	14·8	13·7	3·4	...	...	...	22·8	74·0	522·8	27·3	20·5	3·4	22·8	27·
		...	...	...	...	...	1·14	1·14	...	2·28	1·14	...	...	...	...	...	...	...	...	6·83		...	...	...	...
C																									
Vizianagram	525	...	1·9	...	...	87·6	...	...	3·8	1·9	1·9	15·2	13·3	5·7	...	...	...	1·9	57·1	741·0	41·9	22·9	...	17·1	17·
		...	1·90	...	...	...	...	...	1·90	1·90	...	...	...	...	...	...	...	...	...	19·05		...	...	...	...
Berhampur	412	...	26·7	...	...	162·6	4·9	2·4	...	2·4	19·4	4·9	9·7	...	...	4·9	...	...	60·7	485·4	17·0	9·7	...	19·4	31·
		...	19·42	...	...	...	2·43	...	...	...	4·85	...	...	...	...	...	...	...	...	31·55		...	...	...	...
Group XI.—Southern India.	8,229	1·3	3·5	·4	·1	118·7	5·0	26·0	4·3	1·1	5·3	22·6	28·6	6·2	·1	1·9	...	26·4	44·0	611·7	33·0	10·0	3·0	13·1	17·
		...	2·31	..	...	·12	·85	·12	·73	·36	1·46	·36	·24	...	...	·12	...	·24	...	9·36		...	...	...	...
Maymyo	267	...	11·2	...	...	775·3	...	22·5	...	11·2	59·9	67·4	48·7	30·0	...	...	...	112·4	82·4	1775·3	93·6	26·2	...	41·2	15·
		...	7·49	...	..	...	...	...	...	...	3·75	...	...	...	...	...	...	...	...	14·98		...	...	...	...
Bampon	87	...	...	...	...	574·7	...	...	...	...	...	57·5	11·5	23·0	...	...	...	57·5	11·5	1000·0	34·5	11·5	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Toungyi	49	...	...	...	...	122·4	...	...	...	20·4	20·4	...	40·8	...	...	...	...	...	20·4	408·2	20·4	...	...	...	2·
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Mindat-Sakan	125	...	...	...	...	600·0	16·0	...	8·0	8·0	24·0	80·0	88·0	...	...	...	...	24·0	32·0	1288·0	48·0	...	...	8·0	24·
		...	...	...	...	...	...	...	8·00	...	...	...	...	...	...	...	...	...	...	16·00		...	...	...	...
Haka	20	...	...	...	...	50·0	...	...	...	...	...	...	...	...	...	...	...	...	...	250·0	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Falam	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Kohima	520	...	...	...	...	1448·1	28·8	...	...	7·7	15·4	40·4	50·0	11·5	...	...	...	82·7	32·7	2040·4	75·0	9·6	1·9	19·2	1·
		...	...	...	...	1·92	1·92	...	...	7·69	...	...	1·92	...	...	...	...	...	...	17·31		...	...	...	...
Shillong	766	...	...	...	...	319·8	28·7	...	1·3	13·0	17·0	39·2	60·1	13·0	...	7·8	...	...	35·2	960·8	43·1	9·1	...	7·8	18·
		...	...	...	...	...	...	...	...	2·61	5·22	2·61	1·30	1·30	...	1·30	...	...	...	20·89		...	...	...	...
Gantak	200	...	...	...	...	70·0	...	...	...	...	15·0	15·0	20·0	...	...	...	...	5·0	10·0	230·0	10·0	...	5·0	5·0	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Darjeeling	94	...	...	...	...	117·0	...	10·6	...	...	10·6	31·9	31·9	21·3	...	...	...	...	...	446·8	21·3	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Almora	589	...	...	...	...	108·7	17·0	...	...	6·8	18·7	5·1	27·2	6·8	...	1·7	...	20·4	49·2	477·1	30·6	20·4	...	18·7	10·
		...	...	...	...	3·40	5·09	...	...	6·79	...	...	...	...	...	...	...	...	...	15·28		...	...	...	...
Ranikhet	39	25·6	...	...	...	128·2	...	...	...	...	...	...	...	...	...	...	...	...	51·3	230·8	...	...	...	51·3	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...

Stations and Groups.	Average annual strength.	1. Admission-rate.										2. Death-rate, per 1,000 of strength.												
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All causes.	Constantly sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Saini Tal.	142	...	...	...	...	162·0	...	...	...	21·1	42·3	7·0	42·3	...	...	7·0	...	...	316·9	831·0	77·5	239·4	...	7·0	70·4
		...	...	...	...	...	...	...	...	...	7·04	...	...	...	...	...	...	...	...	14·08		...	...	...	...
Sanadowne	1,623	...	...	·6	...	311·8	15·4	27·1	·6	3·1	22·2	13·6	34·5	10·5	...	·6	...	8·0	57·3	857·1	32·0	22·8	9·9	14·8	9·9
		...	...	·62	...	...	·62	...	...	·62	1·23	...	...	...	...	...	...	...	...	3·70		...	...	...	...
Simla	133	...	...	...	...	195·5	37·6	...	...	...	...	22·6	...	22·6	...	...	...	...	67·7	548·9	22·6	7·5	...	...	60·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Sutogh	123	...	...	...	...	252·0	8·1	...	...	8·1	...	8·1	65·0	...	...	8·1	...	...	40·7	902·4	40·7	16·3	...	8·1	16·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Dharmsala	1,133	...	...	...	...	315·1	116·5	...	·9	8·8	15·9	15·9	26·5	14·1	...	1·8	...	20·3	198·6	992·9	58·3	36·2	54·7	46·8	60·9
		...	...	...	...	...	6·18	...	...	5·30	4·41	...	...	...	...	...	...	...	·88	25·60		...	...	·88	...
Dakloh	908	...	...	...	...	190·5	56·2	...	...	7·7	4·4	20·9	9·9	4·4	...	...	2·2	48·5	112·3	768·7	39·6	49·6	7·7	18·7	36·3
		...	...	...	...	1·10	7·71	...	...	1·10	1·10	1·10	1·10	...	...	...	...	...	2·20	19·82		1·10	...	1·10	...
Murree	42	...	...	...	...	285·7	...	...	...	...	...	...	...	...	...	...	...	...	71·4	428·6	23·8	23·8	...	...	47·6
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Khyragully	30	...	...	...	...	66·7	200·0	...	...	...	...	33·3	33·3	...	...	...	...	...	...	500·0	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Baragully	29	...	...	...	...	103·4	...	...	...	...	...	...	...	...	...	...	...	34·5	34·5	344·8	...	34·5	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Kalabagh	53	...	...	...	...	150·9	37·7	...	...	...	...	...	18·9	...	...	...	...	...	18·9	547·2	18·9	...	...	...	18·9
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Gilgit	224	...	...	...	...	375·0	17·9	...	...	...	4·5	89·3	98·2	26·8	...	...	4·5	13·4	...	1022·3	35·7	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4·46		...	...	...	...
Chitral	1,666	...	...	...	13·8	295·9	18·0	·6	...	4·2	11·4	55·8	52·8	15·0	...	1·8	1·8	12·0	20·4	751·5	31·8	8·4	·6	6·6	4·8
		...	...	...	3·60	2·40	...	...	...	2·40	1·20	1·20	...	...	...	...	...	·60	...	15·01		...	...	...	...
Malakand	1,482	...	...	...	...	66·8	12·8	...	1·3	...	13·5	25·0	41·8	8·1	...	2·0	2·7	4·7	2·7	315·8	14·2	...	...	·7	2·0
		...	...	...	...	...	·67	...	...	...	2·02	1·35	·67	...	...	...	...	...	...	6·75		...	...	...	...
Abbottabad	1,407	...	...	·7	...	300·6	26·3	...	...	17·8	15·6	23·5	45·5	15·6	...	1·4	10·7	21·3	68·9	1066·8	59·7	29·1	·7	10·7	28·4
		...	...	...	...	1·42	3·55	...	...	19·60	1·42	...	·71	...	...	·71	...	...	...	20·61		...	...	...	...
Cherat	77	...	...	...	...	233·8	13·0	...	...	...	13·0	...	51·9	...	...	...	...	...	...	363·6	13·0	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Dar	41	...	...	...	...	146·3	...	...	...	...	24·4	...	97·6	...	...	...	...	...	48·8	780·5	24·4	...	...	...	48·8
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Fort Lockhart	177	...	...	...	...	39·5	11·3	...	...	...	5·6	5·6	28·2	33·9	...	...	...	22·6	5·6	316·4	16·9	...	...	5·6	...
		...	...	...	...	...	...	...	...	...	11·30	...	...	...	...	...	...	...	...	22·60		...	...	...	...
Fort Cavagnari	94	...	...	...	...	42·6	63·8	...	...	...	10·6	...	95·7	10·6	...	...	...	...	...	510·6	10·6	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	255·32		...	...	...	...
Parachinar	380	...	...	...	...	468·9	13·0	...	...	...	13·0	28·5	31·1	80·3	...	...	...	51·8	23·3	1163·2	33·7	5·2	...	13·0	5·2
		...	...	...	...	...	2·59	...	...	...	5·18	2·59	...	...	...	...	...	...	...	15·54		...	...	...	...
Sultankot	29	...	...	...	...	1000·0	69·0	...	...	...	...	34·5	69·0	34·5	...	...	...	34·5	...	1379·3	34·5	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Miran Shah	252	...	...	...	...	166·7	39·7	...	...	4·0	35·7	15·9	63·5	4·0	...	...	...	7·9	11·9	690·5	27·8	...	4·0	4·0	4·0
		...	...	...	...	...	...	...	...	...	3·97	...	...	...	...	...	...	...	...	7·94		...	...	...	...
Boya	65	...	...	...	...	292·3	15·4	...	...	...	...	15·4	76·9	15·4	...	...	...	...	...	784·6	15·4	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Datta Khel	666	...	...	...	...	214·7	12·0	...	3·0	...	7·5	85·6	57·1	12·0	...	...	6·0	25·5	6·0	824·3	33·0	3·0	...	3·0	...
		...	...	...	...	...	1·50	...	3·00	...	3·00	...	...	...	...	...	...	...	...	45·05		...	...	...	...
Sarwekai	274	...	...	...	3·6	434·3	3·6	...	...	...	21·9	43·8	354·0	3·6	...	...	18·2	29·2	14·6	1335·8	36·5	7·3	...	7·3	...
		...	...	...	3·65	...	...	...	...	...	3·65	...	3·65	...	...	...	...	...	...	14·60		...	...	...	...
Wana	816	2·5	...	...	9·8	1027·0	127·5	...	...	2·5	28·2	24·5	84·6	6·1	...	...	2·5	8·6	11·0	1628·7	45·3	2·5	...	3·7	4·9
		...	...	...	3·68	...	3·68	...	...	...	2·45	...	...	...	...	...	...	...	...	14·71		...	...	...	...
Mir Ali Khel	130	...	...	...	...	569·2	7·7	...	...	...	...	69·2	92·3	...	...	...	15·4	53·8	7·7	1076·9	30·8	...	...	7·7	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Fort Sandeman	882	...	...	...	...	817·5	15·9	...	...	1·1	27·2	54·4	78·2	3·4	...	2·3	27·2	12·5	29·5	1556·7	42·0	4·5	2·3	10·2	12·5
		...	...	...	...	...	...	...	...	1·13	6·80	...	...	...	...	...	...	...	...	11·34		...	...	...	...
Hindubagh	16	...	...	...	...	1000·0	250·0	...	...	...	...	187·5	125·0	...	...	...	62·5	187·5	...	2187·5	62·5	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Khan Mohamed Kot.	84	...	...	...	...	1761·9	47·6	...	...	...	71·4	59·5	107·1	59·5	...	...	...	59·5	11·9	2476·2	71·4	...	...	...	11·9
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Murgha	75	...	...	...	...	680·0	...	...	...	...	...	13·3	80·0	...	...	...	...	...	...	893·3	26·7	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Marratangi	23	...	...	...	...	1043·5	...	...	...	...	...	...	130·4	...	...	...	...	...	...	1217·4	43·5	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...

TABLE XXVIII—*continued.*

RATIOS of STATIONS, GROUPS, and COMMANDS. **For actuals see Table XXIX**

STATIONS, GROUPS, AND COMMANDS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	2. DEATH-RATE, PER 1,000 OF STRENGTH. Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.
Loralai	930	...	...	...	...	953·8	4·3	...	...	2·2	23·7	116·1	66·7	80·6	...	1·1	17·2	24·7	33·3	1674·2	43·0	3·2	1·1	6·5	22·6
		...	...	...	...	...	...	...	...	...	6·45	1·08	...	...	...	...	...	...	...	8·60		...	...	...	...
Gumbaz	78	...	...	...	...	1038·5	12·8	...	...	...	...	115·4	25·6	25·6	...	12·8	...	25·6	...	1730·8	51·3	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Quetta	1,837	216·1	...	·5	...	421·9	4·4	5·4	...	...	8·7	40·8	37·0	8·7	1·1	...	3·3	13·6	52·3	1097·4	30·5	2·2	18·0	12·0	20·1
		2·72	...	...	...	·54	·54	...	...	...	2·72	·54	2·18	·54	1·09	...	...	...	...	11·43		...	...	...	...
Peshin	463	...	...	...	...	613·4	10·8	2·2	4·3	...	6·5	34·6	43·2	8·6	...	...	...	2·2	19·4	976·2	34·6	...	2·2	10·8	6·5
		...	...	...	...	2·16	...	...	...	...	4·32	2·16	...	...	...	...	...	...	...	8·64		...	...	...	...
Shelabagh	79	...	...	...	...	493·7	38·0	...	...	...	50·6	38·0	75·9	12·7	...	...	25·3	...	...	1050·6	38·0	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12·66		...	...	...	...
Spinwana	83	...	...	...	...	253·0	24·1	...	...	...	...	120·5	60·2	...	...	...	...	...	...	710·8	24·1	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Chaman	731	...	...	...	...	172·4	43·8	...	1·4	4·1	9·6	12·3	9·6	4·1	1·4	1·4	5·5	6·8	52·0	554·0	19·2	1·4	6·8	5·5	38·3
		...	...	...	...	...	...	...	...	1·37	1·37	...	...	...	1·37	...	...	...	1·37	5·47		...	...	...	1·37
Mount Abu	84	...	...	...	...	404·8	...	...	...	...	...	11·9	...	...	...	...	...	...	...	488·1	11·9	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
Ootacamund	306	...	...	...	...	225·5	...	...	6·5	...	26·1	45·8	42·5	3·3	...	6·5	...	6·5	55·6	712·4	19·6	13·1	...	6·5	35·9
		...	...	...	...	...	...	...	...	...	3·27	...	...	...	...	...	...	...	...	13·07		...	...	...	...
GROUP XII.—HILL STATIONS.	20,430	19·6	·1	·1	1·6	412·5	28·3	3·1	·6	4·4	15·9	37·2	49·6	14·8	·1	1·3	4·5	18·5	47·7	973·4	37·1	13·4	6·5	11·2	16·7
		·24	·10	·05	·49	·59	1·52	...	·15	1·91	2·55	·54	·49	·10	·15	·10	...	·05	·20	14·39		·05	...	·10	·05
Marching in Bengal.	1,022	...	...	...	...	66·5	2·9	...	...	...	1·0	2·0	16·6	2·9	...	...	...	2·0	3·9	130·1	2·9	3·9	...	...	...
		...	...	...	...	...	...	...	...	·98	...	...	...	...	...	...	...	...	...	3·91		...	...	...	...
Marching in Punjab.	2,244	...	...	...	...	107·4	4·5	·4	...	·4	8·0	8·0	22·7	5·3	...	·4	...	8·9	24·5	311·1	5·3	11·1	2·2	2·2	8·9
		...	...	...	...	·45	·45	...	...	·45	...	...	...	...	...	...	...	...	...	4·01		...	...	...	...
Marching in Madras.	1,116	...	1·8	...	...	192·7	2·7	104·8	·9	...	3·6	18·8	25·1	8·1	...	·9	...	17·0	12·5	522·4	13·4	4·5	...	4·5	3·6
		...	·90	...	...	...	...	...	·90	...	·90	...	...	...	...	...	...	·90	...	5·38		...	...	...	...
Marching in Bombay.	1,524	...	...	...	...	95·1	3·3	2·6	·7	...	5·9	5·9	26·9	4·6	...	...	...	2·0	10·5	251·3	3·9	1·3	...	2·0	7·2
		...	·66	...	...	...	·66	...	·66	...	·66	...	·66	·66	...	...	...	...	...	5·25		...	...	...	...
Hyderabad Contingent marching.	246	...	...	...	...	105·7	...	...	...	...	4·1	...	16·3	...	...	...	...	...	12·2	191·1	4·1	4·1	...	...	8·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4·07		...	...	...	...
Tochi Field Force	2,266	·4	...	...	...	1034·9	27·4	·4	1·8	·9	27·8	21·6	454·1	108·1	...	·9	17·7	56·3	7·9	1981·9	60·9	·9	1·8	1·8	3·5
		...	...	...	...	3·09	3·97	...	...	·44	8·83	·88	3·53	1·77	...	·44	...	...	...	27·80		...	...	...	...
Malakand Field Force.	3,116	...	...	...	...	244·9	8·7	...	·3	...	24·4	20·5	177·5	43·0	...	1·0	1·6	21·8	9·0	826·4	34·0	3·5	...	1·9	3·5
		...	...	...	...	1·60	·64	...	...	...	3·85	·32	·64	...	...	...	...	...	·32	42·04		·32	...	...	...
Kohat and Kurram Field Force.	990	...	...	...	2·0	557·6	27·3	6·1	3·0	2·0	6·1	14·1	234·3	14·1	...	...	...	19·2	32·3	1102·0	23·2	16·2	...	5·1	11·1
		...	...	...	...	...	1·01	...	...	...	2·02	...	1·01	1·01	...	...	...	1·01	...	12·12		...	...	...	...
Mohmund Field Force.	449	...	...	...	...	709·1	4·5	2·3	...	...	4·5	6·8	175·0	27·3	...	2·3	...	6·8	22·7	1147·7	20·5	13·6	...	...	9·1
		...	...	...	...	...	2·27	...	...	...	...	...	...	...	...	...	...	...	...	18·18		...	...	...	...
Tirah Field Force	4,287	...	...	...	·5	430·2	14·9	·5	...	·2	24·7	41·1	255·9	63·9	...	2·3	2·1	43·4	28·9	1184·7	54·1	11·4	1·9	4·2	11·4
		...	...	...	...	3·50	·70	...	·23	·23	6·30	1·87	6·30	1·17	...	...	...	1·40	...	54·82		...	...	...	...
Aden	927	...	...	...	...	212·5	18·3	12·9	1·1	4·3	3·2	38·8	69·0	19·4	...	...	14·0	11·9	42·1	708·7	25·9	6·5	12·9	8·6	14·0
		...	...	...	...	2·16	...	...	...	1·08	1·08	1·08	1·08	...	...	...	1·08	...	...	11·87		...	...	...	...
Persian Gulf	88	...	...	...	...	250·0	...	11·4	...	...	...	45·5	11·4	34·1	...	22·7	11·4	11·4	22·7	670·5	22·7	...	...	22·7	...
		...	...	...	...	...	...	...	...	...	...	...	...	11·36	...	...	...	...	11·36	34·09		...	...	11·36	...
Mombasa Field Force.	42	...	...	...	...	452·4	23·8	...	...	...	71·4	...	95·2	23·8	...	...	...	23·8	428·6	1357·1	23·8	...	...	...	428·6
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...
INDIA	129,802	5·4	·8	·4	·4	346·9	15·9	9·3	1·4	2·6	13·0	24·9	66·4	14·0	·1	1·2	2·8	18·1	40·8	835·5	31·5	11·9	4·3	9·0	15·7
		·04	·52	·05	·12	·65	1·04	·03	·27	·79	2·73	·56	·67	·17	·06	·08	·01	·17	·09	13·12		·02	...	·05	·02
BENGAL	26,644	3·1	·4	·6	·3	363·9	13·2	9·0	1·2	4·1	11·7	19·5	53·1	7·9	...	1·7	·8	14·8	54·9	833·8	33·1	16·6	6·8	12·0	19·6
		...	·26	·11	·11	·79	·80	·04	·23	1·46	1·80	·49	·41	·11	...	·11	...	·11	...	9·12		...	...	...	...
PUNJAB	35,454	·1	...	·6	·9	400·8	23·7	5·3	·6	3·7	18·0	29·1	55·2	11·3	...*	·6	2·7	17·9	31·8	867·4	30·6	9·6	3·8	6·2	12·2
		...	...	·06	·28	·45	1·47	·03	·11	1·24	4·29	·54	·45	·11	·03	·03	...	·06	·11	13·26		·03	...	·06	·03
MADRAS	23,588	1·3	2·3	·3	·1	214·7	7·1	20·7	3·2	2·0	5·5	23·1	35·0	8·0	·1	1·4	·5	25·6	48·4	710·1	32·3	13·1	3·1	13·5	18·7
		...	1·57	...	...	·34	·76	·04	·55	·38	1·14	·30	·25	·04	·04	·08	...	·21	·08	9·45		...	...	·08	...
BOMBAY	26,421	17·4	·9	·4	·2	329·2	16·4	10·2	1·6	1·2	11·5	29·3	42·8	12·3	·2	1·4	4·4	11·0	44·6	821·6	27·4	11·7	5·6	9·2	18·1
		·19	·57	·03	·08	·34	·79	·03	·38	·26	2·35	·49	·49	·15	·19	·11	·03	·15	·15	10·43		...	...	·08	·08
HYDERABAD CONTINGENT.	6,554	18·2	2·7	...	...	226·3	13·1	2·6	·5	1·7	6·9	8·2	46·5	1·5	·2	1·1	9·5	2·4	23·2	551·3	19·3	8·2	·5	4·9	9·6
		...	1·37	...	...	·61	·76	...	·15	·31	·61	·31	·46	...	·15	·15	...	·15	·15	6·26		...	...	·15	...

*One case admitted.

TABLE XXIX.

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.																				2. DEATHS.							
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.	Other Entozoa.
Blair	302	...	...	...	...	43	...	...	...	1	...	8	9	2	...	...	...	5	3	184	8	2	...	1	...	5	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Kimein	741	...	1	1	...	14	2	...	...	...	3	7	24	1	...	...	...	3	23	209	14	4	1	16	2	...	...
		...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	3		...	...	...	...	...	...
Rangoon	1,172	...	1	...	...	153	...	2	13	2	6	50	169	40	...	...	...	65	48	1,136	42	26	...	12	10	12	5
		...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	7		...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS.	2,215	...	2	1	...	210	2	2	13	3	9	65	202	43	...	...	...	73	74	1,529	63	32	1	29	12	17	5
		...	1	...	...	...	1	...	1	...	1	...	1	...	...	...	...	...	...	10		...	...	...	...	...	
Akyetmyo	494	...	...	...	...	49	...	...	...	...	2	20	29	...	...	...	...	...	28	207	12	11	...	6	11	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2		...	...	1	...	...	...
Allaw	74	...	...	...	...	165	3	...	...	..	...	5	5	...	...	...	1	8	5	214	5	1	...	4	...	...	...
		...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Bang Tung	441	...	...	...	...	480	23	...	1	3	7	21	7	16	1	3	...	2	29	781	45	4	...	12	13	1	...
		...	...	...	...	3	2	...	...	1	1	2	...	...	1	1	...	...	...	16		...	...	...	...	...	...
Fort Stedman	434	...	...	...	...	262	3	...	...	...	...	16	9	...	...	1	...	14	21	477	20	...	1	12	8	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2		...	...	...	...	...	...
Kemmendine	30	...	...	...	...	6	...	...	1	...	...	...	...	...	...	...	...	1	...	12	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Maktila	627	...	...	...	1	85	9	...	...	2	1	14	15	3	...	2	...	19	40	336	16	3	10	11	16	1	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...	...
Mt Dufferin	1,693	14	...	...	...	313	3	67	2	6	10	42	26	21	...	1	...	45	106	1,144	55	28	16	23	39	...	...
		...	...	...	...	1	...	...	1	1	2	...	1	...	...	...	...	...	...	9		...	...	...	...	...	...
Naukmyaung	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Nabeitkyin	49	...	...	...	...	26	...	1	...	...	...	4	...	...	...	...	...	...	1	34	1	...	...	...	1	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Namo	854	...	...	...	...	295	...	2	1	...	4	18	20	4	...	...	...	3	13	593	22	2	1	8	2	...	...
		...	...	...	...	1	...	...	...	...	3	...	...	...	...	...	...	...	...	4		...	...	...	...	...	...
Nwebo	18	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	8	1	...	...	1	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Nyingyan	613	4	1	...	...	75	7	...	...	2	2	13	15	5	...	2	...	14	36	388	22	7	8	12	9	...	...
		...	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	6		...	...	...	...	...	...
Pallewa	6	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	4	...	...	...	...	1	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
GROUP II.—BURMA INLAND	5,354	18	1	...	1	1,757	48	70	5	13	26	149	131	49	1	9	1	106	283	4,198	198	56	36	89	102	3	...
		...	1	...	...	7	3	...	1	2	6	2	1	...	1	1	...	1	1	40		...	...	1	...	...	...
	1,015	...	...	...	4	307	30	22	...	3	16	24	80	18	...	8	...	27	163	908	47	20	23	23	97	...	...
Manipur		...	...	...	2	2	1	...	...	2	3	...	3	...	...	1	...	2	...	19		...	...	...	...	...	...
	74	...	...	...	...	71	3	...	...	...	...	1	2	...	...	...	...	...	1	103	2	...	...	...	1	...	...
Nadiya		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
	327	...	...	...	...	311	5	...	...	3	1	9	26	2	...	1	1	16	6	458	15	1	...	2	3	2	...
Nibrugarh		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3		...	...	...	...	...	...
	375	...	...	...	...	167	1	...	1	...	2	11	85	15	...	1	1	11	4	400	16	...	...	1	3	1	...
Silchar		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...	...
GROUP III.—ASSAM	1,791	...	...	...	4	856	39	22	1	6	19	45	193	39	...	10	2	54	174	1,909	80	21	23	26	104	3	...
		...	...	...	2	2	1	...	...	2	3	...	3	...	...	1	...	2	...	23		...	...	...	...	...	...
	690	...	...	...	...	320	1	...	2	1	6	31	63	8	...	...	3	4	19	733	34	...	1	7	11	...	...
Fort William		...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	4		...	...	...	...	...	...
	775	...	...	...	...	347	11	8	2	5	3	30	60	2	...	3	1	7	30	902	34	3	1	15	11	1	2
Alipore		...	...	...	...	3	1	...	...	1	1	...	...	...	...	...	...	...	...	6		...	...	...	...	...	...
	37	2	...	...	...	13	...	...	...	...	...	...	4	...	...	...	...	...	1	32	1	1	...	...	...	...	...
Ballygunge		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...

TABLE XXIX—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.
Dum Dum	124	...	...	...	...	16	2	...	...	...	...	3	2	...	...	...	...	2	2	31	1	2	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Barrackpore	729	...	...	...	...	320	...	24	...	...	4	4	26	...	...	3	...	3	14	543	22	11	...	...	3	...
		...	...	...	...	2	...	1	...	...	1	...	1	...	...	...	...	...	...	7		...	...	...	...	...
Buxa	358	...	...	...	...	184	1	...	...	...	2	17	21	1	...	...	..	23	2	350	11	1	...	1	...	...
		...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Cuttack	345	...	...	1	...	49	...	...	...	...	1	5	9	1	...	1	...	3	56	268	14	27	...	16	13	16
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA.	3,059	2	...	1	...	1,249	15	32	4	6	16	90	185	12	...	7	4	42	124	2,859	116	45	2	39	38	17
		...	...	...	...	6	1	1	...	2	3	...	2	...	...	...	...	...	...	19		...	...	...	...	...
A																										
Doranda	420	...	...	...	...	145	1	...	2	1	3	4	12	4	...	...	...	3	6	237	11	2	1	1	2	...
		...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	4		...	...	...	...	...
B																										
Dinapore	547	...	...	...	...	48	26	...	...	2	3	7	11	3	...	2	...	4	9	238	11	2	...	2	5	3
		...	...	...	...	...	2	...	...	1	1	...	...	...	...	...	...	...	...	5		...	...	...	...	...
Benares	768	...	...	...	...	52	20	2	...	4	4	6	16	1	...	2	...	8	74	315	15	44	...	16	14	21
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Allahabad	1,243	1	3	1	...	366	1	3	...	...	4	14	157	12	...	1	1	13	44	890	30	6	4	21	13	1
		...	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	9		...	...	...	...	...
Fyzabad	855	...	...	2	1	112	5	...	3	4	15	18	35	1	...	..	...	8	88	525	25	19	19	13	37	6
		...	...	...	1	...	...	...	...	2	6	2	...	...	...	...	...	...	...	13		...	...	...	...	...
Lucknow	1,194	64	...	3	...	227	5	1	...	5	15	22	37	9	...	3	...	7	33	711	28	9	9	5	10	2
		...	...	...	...	1	2	...	...	1	1	1	...	1	...	...	...	...	...	9		...	...	...	...	...
Cawnpore	1,172	2	1	...	2	321	39	4	2	5	25	32	45	10	...	2	...	23	60	892	45	17	3	18	22	2
		...	1	...	...	2	1	...	...	1	7	...	1	...	...	...	...	...	...	15		...	...	...	...	...
Fatehgarh	95	...	1	...	...	23	...	...	...	1	2	7	4	4	...	...	...	...	10	83	4	4	...	3	3	...
		...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	6,295	67	5	6	3	1,294	103	10	7	22	71	110	317	44	...	10	1	66	324	3,891	169	103	36	79	106	35
		...	3	...	1	4	6	...	...	5	17	3	2	1	...	...	...	1	...	60		...	...	...	...	...
A																										
Bareilly	1,262	...	...	2	...	153	9	...	...	3	6	5	20	3	...	1	...	15	63	540	27	28	...	9	28	4
		...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	4		...	...	...	...	...
Roorkee	449	...	...	2	...	22	4	...	...	...	2	2	3	1	...	1	...	...	20	110	7	4	...	4	12	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3		...	...	...	...	...
Dehra Dun	1,205	2	...	3	...	223	32	37	1	28	17	20	21	8	...	1	...	4	62	833	37	16	9	7	30	4
		...	...	1	...	1	3	...	...	15	...	2	...	...	...	...	...	...	...	25		...	...	...	...	...
Meerut	1,213	...	...	...	...	1,087	3	...	...	12	31	48	60	27	...	...	2	71	82	2,032	72	38	11	18	15	18
		...	...	...	...	2	...	...	...	...	4	1	..	...	...	...	...	...	...	9		...	...	...	...	...
Delhi	783	8	...	...	...	417	43	...	1	1	4	14	26	1	...	3	3	3	11	756	20	1	1	4	5	...
		...	...	...	...	1	1	...	...	...	3	1	...	...	...	1	...	...	...	7		...	...	...	...	...
Umballa	1,113	...	...	...	...	210	19	...	...	...	2	6	11	1	...	...	...	10	23	496	20	13	...	4	6	...
		...	...	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	...	4		...	...	...	...	...
B.																										
Ludhiana	42	...	...	...	...	22	...	...	...	...	1	...	1	...	...	...	...	...	2	31	1	...	...	...	2	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Jullundur	745	...	...	...	...	92	3	...	...	5	2	10	22	5	...	...	1	10	14	310	13	5	2	1	6	...
		...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	3		...	...	...	...	...
Ferozepore	1,668	...	...	...	...	479	17	9	2	4	16	35	43	5	...	...	1	31	80	1,256	46	17	20	14	29	6
		...	...	...	...	...	3	1	...	...	4	2	...	1	...	...	...	...	...	11		...	...	...	...	...
Mecan Meer	1,645	...	...	10	...	589	109	...	...	4	21	27	46	3	...	...	5	17	36	1,158	39	7	3	6	18	10
		...	...	...	...	1	...	...	...	1	6	1	...	1	...	...	...	...	...	12		...	...	...	...	...
Amritsar	182	...	...	...	...	25	1	...	...	2	3	...	12	...	...	...	...	1	3	94	3	1	...	...	2	...
		...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	3		...	...	...	...	...
Kangra	14	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	4	...	1	..	...	...	...
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...

| Stations and Groups. | Average annual strength. | 1. Admissions. 2. Deaths. | | |

TABLE XXIX—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	2. DEATHS. Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.
Khajuri Kach	284	...	...	...	...	146	6	...	1	1	17	22	39	...	..	...	..	2	4	294	8	2	...	...	2	...
		...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	5		...	...	...	...	...
Sâbi	240	...	...	...	...	67	2	...	...	...	4	12	12	2	...	...	...	8	13	170	7	4	1	2	6	...
		...	...	.	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	3		...	..	...	...	...
C.																										
Jacobabad	627	...	...	...	...	498	1	...	...	3	17	17	32	...	..	...	2	2	22	760	23	...	1	4	17	1
		...	...	...	...	1	...	...	...	...	3	...	...	...	...	...	..	...	...	4		...	...	...	...	...
Hyderabad	447	...	...	...	...	105	2	2	...	1	2	7	18	...	...	...	1	1	37	264	14	6	1	12	18	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	1		...	...	...	...	...
Kurrachee	605	...	...	...	...	322	9	...	...	...	9	39	25	3	...	1	3	6	28	658	18	3	5	8	12	2
		...	...	...	...	...	1	...	...	...	4	3	...	...	...	...	...	...	...	8		...	...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	15,270	1	...	7	...	9,407	202	179	13	57	410	566	1,191	202	...	7	53	303	372	17,287	528	87	33	86	166	55
		...	...	2	...	7	14	...	1	12	109	11	13	2	..	...	...	...	...	207		...	...	..	...	...
A																										
Bhuj	628	...	2	...	...	48	...	59	2	...	9	13	12	...	...	...	12	5	33	391	22	7	5	5	16	10
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Rajkot	478	...	...	...	...	275	4	5	1	...	7	23	17	3	...	1	5	8	31	576	17	17	2	9	3	5
		...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Deesa	897	...	...	1	1	224	39	14	1	3	9	16	20	9	...	3	2	16	22	680	20	4	3	2	13	6
		...	...	...	1	1	2	...	...	1	...	...	...	...	...	1	...	...	...	7		...	...	...	...	...
Sadra	69	...	...	...	...	8	...	...	...	...	1	...	...	...	...	...	...	...	2	18	1	...	...	...	2	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Ahmedabad	525	...	...	...	...	149	5	...	2	...	6	9	13	3	...	1	...	4	34	364	17	7	5	9	13	13
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Baroda	590	...	...	...	...	200	6	3	...	...	1	24	23	1	...	1	1	4	19	430	16	6	1	10	2	3
		...	...	...	...	.	1	...	...	...	1	1	1	...	...	...	...	...	...	5		...	...	...	...	...
Surat	13	...	...	...	...	2	...	1	...	...	...	...	1	3	...	...	...	...	..	7	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
B																										
Barwani	73	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Alirajpore	37	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	1	10	...	...	...	...	1	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Sirdarpore	349	...	5	...	...	68	2	...	...	...	17	19	10	13	...	2	...	2	16	335	9	6	...	...	10	65
		...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	5		...	...	...	...	1
Jhabwa	39	...	...	...	...	6	...	...	...	...	1	1	...	...	...	...	...	...	...	13	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Kherwara	350	...	...	1	...	70	...	1	5	...	5	5	...	...	...	...	...	2	2	193	7	...	1	...	1	25
		...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Kotra	162	...	...	...	...	27	1	...	...	...	...	3	1	...	...	...	...	...	1	62	2	1	...	...	...	4
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Oodeypore	62	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	7	...	...	...	...	...	5
		...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Erinpura	574	15	...	1	...	61	2	...	1	3	11	21	3	17	...	...	1	6	8	316	14	2	...	..	6	5
		...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5		...	...	...	...	...
Neemuch	510	...	...	...	1	226	2	10	1	1	7	2	17	4	...	...	1	5	15	485	18	...	6	4	5	2
		...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Deoli	537	...	...	...	...	168	1	...	...	...	5	6	8	1	...	...	4	18	19	399	13	4	5	4	6	15
		...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Beawar	47	...	...	...	...	3	...	...	...	...	2	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Nasirabad	683	...	...	...	...	48	1	...	2	...	7	4	13	2	...	...	3	4	28	281	13	10	6	5	7	9
		...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3		...	...	...	...	...
Ajmere	496	...	...	...	...	39	...	...	3	2	15	18	6	5	...	...	...	...	17	232	8	8	...	2	7	3
		...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	3		...	...	...	...	...
Sambhar	21	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Jeypore	59	...	...	...	...	13	...	...	...	...	...	...	3	...	...	...	...	...	4	26	1	2	...	...	2	1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...

| Stations and Groups. | Average annual strength. | 1. Admissions. 2. Deaths. | | |

TABLE XXIX—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

Stations and Groups.	Average annual strength.	1. Admissions.																		2. Deaths.						
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All causes.	Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.
Belgam	1,166	...	3	...	...	77	24	...	6	3	4	9	18	2	...	...	...	67	121	678	30	66	...	19	36	1
		...	3	...	...	...	6	...	1	1	2	...	...	...	...	...	...	...	...	40		...	...	...	...	...
Satara	468	...	2	...	...	110	...	...	...	...	1	4	6	2	1	2	1	6	20	292	13	2	...	3	15	9
		...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	4		...	...	...	...	...
Poona	2,328	1	1	...	...	455	47	77	3	3	21	35	94	50	...	3	2	28	75	1,812	61	19	12	12	32	31
		...	...	...	...	...	4	...	...	1	5	...	1	...	...	...	...	2	...	49		...	...	...	...	...
Kirkee	976	...	2	1	...	247	5	4	3	...	5	30	100	11	...	7	...	25	51	871	32	13	4	8	26	13
		...	2	...	...	2	1	...	1	...	1	1	2	...	...	...	...	...	...	18		...	...	...	...	...
Sirur	517	...	2	2	...	26	8	...	...	...	...	...	15	1	...	1	1	2	11	217	10	...	...	1	10	17
		...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12		...	...	...	...	...
Nasik	70	...	...	1	...	22	...	...	1	..	1	4	1	3	...	...	...	1	1	42	2	...	...	1	...	...
		...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	2		...	...	...	...	...
Group IX.—Deccan	19,137	121	50	9	3	5,510	254	166	40	31	137	237	878	120	2	28	82	269	900	13,941	502	295	38	192	375	105
		...	32	...	...	7	20	...	11	7	27	6	8	2	2	1	...	6	3	244		...	...	2	1	...
Thana	90	...	...	...	...	...	6	...	...	...	...	...	19	...	...	1	...	...	4	49	2	...	1	...	3	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1		...	...	...	...	...
Bombay	1,383	47	2	...	...	249	133	4	1	3	6	54	139	33	1	4	4	18	69	1,211	43	37	1	8	23	8
		...	...	...	...	...	3	...	...	1	1	1	...	...	1	1	...	...	...	17		...	...	...	...	...
Butcher's Island	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Cannanore	649	...	...	...	...	46	1	5	1	5	1	14	19	5	...	...	...	11	87	401	27	26	12	32	17	...
		...	...	...	...	...	...	...	..	2	...	1	1	...	...	...	...	...	...	3		...	...	...	...	...
Trichoor	89	...	...	...	...	9	5	...	1	...	...	1	2	1	...	...	...	3	3	69	3	1	...	...	2	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Quilon	511	...	...	...	...	...	1	47	1	...	...	9	14	...	...	...	...	...	38	337	12	6	...	3	29	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...
Trivandrum	77	...	...	...	...	6	...	2	1	...	...	3	3	...	...	...	...	...	5	66	2	3	...	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Group X.—Western Coast.	2,808	47	2	...	...	316	140	58	5	8	7	81	196	39	1	5	4	32	206	2,134	89	73	14	45	74	8
		...	...	...	...	...	3	...	..	3	1	2	1	...	1	2	...	...	...	24		...	...	...	...	...
A																										
Bellary	1,296	...	12	...	...	164	1	19	3	...	2	14	33	5	...	2	...	17	44	643	40	12	...	10	22	5
		...	6	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	10		...	...	...	...	...
Bangalore	3,151	2	2	3	1	445	29	86	26	...	29	81	133	34	1	10	...	138	102	2,191	125	22	9	24	47	11
		...	1	...	...	...	4	...	4	...	9	1	2	...	...	1	...	2	...	29		...	...	...	...	...
B																										
Trichinopoly	1,223	9	2	...	...	176	3	2	2	1	2	41	27	...	...	2	...	...	68	667	26	9	13	18	28	1
		...	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	7		...	...	...	...	...
St. Thomas' Mount	744	...	1	...	...	65	5	...	1	2	...	27	19	6	...	...	...	41	28	485	28	5	...	19	4	10
		...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2		...	...	...	...	...
Madras	878	...	...	...	...	14	1	106	1	4	2	13	12	3	...	...	...	20	65	450	24	18	3	20	24	...
		...	...	...	...	...	1	1	...	2	1	...	...	...	...	...	...	...	...	6		...	...	...	...	...
C																										
Vizianagram	525	...	1	...	...	46	...	...	2	1	1	8	7	3	...	...	...	1	30	389	22	12	...	9	9	2
		...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	10		...	...	...	...	...
Berhampur	412	...	11	...	...	67	2	1	...	1	8	2	4	...	...	2	...	...	25	200	7	4	...	8	13	14
		...	8	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	13		...	...	...	...	...
Group XI.—Southern India.	8,229	11	29	3	1	977	41	214	35	9	44	186	235	51	1	16	...	217	362	5,034	272	82	25	108	147	43
		...	19	...	...	1	7	1	6	3	12	3	2	...	...	1	..	2	...	77		...	...	...	...	...
Maymyo	267	...	3	...	...	207	...	6	...	3	16	18	13	8	...	...	...	30	22	474	25	7	...	11	4	3
		...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4		...	...	...	...	...
Bampon	87	...	...	...	...	50	...	...	...	...	...	5	1	2	...	...	...	5	1	87	3	1	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...
Toungyi	49	...	...	...	...	6	...	...	...	1	1	...	2	...	...	...	...	...	1	20	1	...	...	...	1	...
		...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...

Stations and Groups.	Average annual strength.	1. Admissions. 2. Deaths.																													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All Causes.	Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.	Other Entozoa.
dat-Sakan	125	...	...	...	...	75	2	...	1	1	3	10	11	...	...	...	...	3	4	161	6	...	...	1	3	...	1
		...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2		...	...	...	...	...	...
ka	20	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
am	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
hima	520	...	...	...	...	753	15	...	...	4	8	21	26	6	...	...	...	43	17	1,061	39	5	1	10	1	...	...
		...	...	...	...	1	1	...	...	4	...	...	1	...	...	...	...	...	...	9		...	...	...	...	...	...
long	766	...	...	...	...	245	22	...	1	10	13	30	46	10	...	6	...	...	27	736	33	7	...	6	14	...	...
		...	...	...	...	...	...	...	...	2	4	2	1	1	...	1	...	...	...	16		...	...	...	...	...	...
ntak	200	...	...	...	...	14	...	...	...	...	3	3	4	...	...	...	...	1	2	46	2	...	1	1	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
rjeeling	94	...	...	...	...	11	...	1	...	...	1	3	3	2	...	...	...	...	..	42	2	...	...	...	...	...	...
		...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
nora	589	...	...	...	...	64	10	...	...	4	11	3	16	4	...	1	...	12	29	281	18	12	...	11	6	...	...
		...	...	...	...	2	3	...	...	4	...	...	...	...	...	...	...	...	...	9		...	...	...	...	...	...
ikhet	30	1	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	2	9	...	...	...	2	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
ini Tal	142	...	...	...	...	23	...	...	...	3	6	1	6	...	...	1	...	...	45	118	11	34	...	1	10	...	...
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2		...	...	...	...	...	...
sdowne	1,623	...	...	1	...	506	25	44	1	5	36	22	56	17	...	1	...	13	93	1,391	52	37	16	24	16	...	1
		...	...	1	...	...	1	...	...	1	2	...	...	...	...	...	...	...	...	6		...	...	...	...	...	...
ala	133	...	...	...	...	26	5	...	...	...	...	3	...	3	...	...	...	...	9	73	3	1	...	...	8	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
togh	123	...	...	...	...	31	1	...	...	1	...	1	8	...	...	1	...	...	5	111	5	2	...	1	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
armsala	1,133	...	...	...	...	357	132	...	1	10	18	18	30	16	...	2	...	23	225	1,125	66	41	62	53	69	...	...
		...	...	...	...	...	7	...	...	6	5	...	...	...	...	...	...	...	1	29		...	...	1	...	...	...
kloh	908	...	...	...	...	173	51	...	...	7	4	19	9	4	...	...	2	44	102	698	36	45	7	17	33	...	...
		...	...	...	...	1	7	...	...	1	1	1	1	...	...	...	...	...	2	18		1	...	1	...	...	...
urree	42	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	3	18	1	1	...	...	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
hyragully	30	...	...	...	...	2	6	...	...	...	...	1	1	...	...	...	...	...	...	15	...	...	...	...	...	...	...
		...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
aragully	29	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	1	10	...	1	...	...	...	...	...
		...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
alabagh	53	...	...	...	...	8	2	...	...	...	...	...	1	...	...	...	...	...	1	29	1	...	...	...	1	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Gilgit	224	...	..	...	...	84	4	...	...	...	1	20	22	6	...	...	1	3	...	229	8	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...	...
Chitral	1,666	...	...	...	23	493	30	1	...	7	19	93	88	25	...	3	3	20	34	1,252	53	14	1	11	8	1	...
		...	...	...	6	4	...	...	...	4	2	2	...	...	...	...	...	1	...	25		...	...	...	...	...	...
Malakand	1,482	...	...	...	...	99	19	...	2	...	20	37	62	12	...	3	4	7	4	468	21	...	...	1	3	...	...
		...	...	...	...	...	1	...	...	...	3	2	1	...	...	...	...	...	...	10		...	...	...	...	...	...
Abbottabad	1,407	...	...	1	...	423	37	...	...	25	22	33	64	22	...	2	15	30	97	1,501	84	41	1	15	40	1	...
		...	...	...	...	2	5	...	...	15	2	...	1	...	...	1	...	...	...	29		...	...	...	...	...	...
Cherat	77	...	...	...	...	18	1	...	...	...	1	...	4	...	...	...	...	...	...	28	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Dar	41	...	...	...	...	6	...	...	...	...	1	...	4	...	...	...	...	...	2	32	1	...	...	...	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...

TABLE XXIX—*continued.*

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS. 2. DEATHS.																												
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All Causes.	Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.	Other Entozoa.
Fort Lockhart	177	...	...	...	...	7	2	...	...	...	1	1	5	6	...	...	...	4	1	56	3	...	...	1	...	...	...
		...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	4		...	...	...	...	...	...
Fort Cavagnari	94	...	...	...	...	4	6	...	...	...	1	...	9	1	...	...	...	...	...	48	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24		...	...	...	...	...	...
Parachinar	386	...	...	...	...	181	5	...	...	...	5	11	12	31	...	...	...	20	9	449	13	2	...	5	2	...	...
		...	...	...	...	...	1	...	...	...	2	1	...	...	...	...	...	...	...	6		...	...	...	...	...	...
Sultankot	29	...	...	...	...	29	2	...	...	...	...	1	2	1	...	...	...	1	...	40	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Miran Shah	252	...	...	...	...	42	10	...	...	1	9	4	16	1	...	...	...	2	3	174	7	...	1	1	1	1	...
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2		...	...	...	...	...	...
Bova	65	...	...	...	...	19	1	...	...	...	...	1	5	1	...	...	...	...	...	51	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Datta Khel	666	...	...	...	...	143	8	...	2	...	5	57	38	8	...	...	4	17	4	549	22	2	...	2	...	1	...
		...	...	...	...	...	1	...	2	...	2	...	...	...	...	...	...	...	...	30		...	...	...	...	...	...
Sarwekai	274	...	...	...	1	119	1	...	...	...	6	12	97	1	...	...	5	8	4	366	10	2	...	2	...	...	...
		...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	4		...	...	...	...	...	...
Wana	816	2	...	...	8	838	104	...	...	2	23	20	69	5	...	...	2	7	9	1,329	37	2	...	3	4	5	...
		...	...	...	3	...	3	...	...	...	2	...	...	...	...	...	...	...	...	12		...	...	...	...	...	...
Mir Ali Khel	130	...	...	...	...	74	1	...	...	...	...	9	12	...	...	...	2	7	1	140	4	...	...	1	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Fort Sandeman	882	...	...	...	...	721	14	...	...	1	24	48	69	3	...	2	24	11	26	1,373	37	4	2	9	11	18	...
		...	...	...	...	...	...	...	...	1	6	...	...	...	...	...	...	...	...	10		...	...	...	...	...	...
Hindubagh	16	...	...	...	...	16	4	...	...	...	...	3	2	...	...	...	1	3	...	35	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Khan Mohamed Kot	84	...	...	...	...	148	4	...	...	...	6	5	9	5	...	...	...	5	1	208	6	...	...	...	1	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Murgha	75	...	...	...	...	51	...	...	...	...	...	1	6	...	...	...	...	...	...	67	2	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Marratangi	23	...	...	...	...	24	...	...	...	...	...	...	3	...	...	...	...	...	...	28	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Loralai	930	...	...	...	...	887	4	...	...	2	22	108	62	75	...	1	16	23	31	1,557	40	3	1	6	21	10	...
		...	...	...	...	...	...	...	...	...	6	1	...	...	...	...	...	...	...	8		...	...	...	...	...	...
Gumbaz	78	...	...	...	...	81	1	...	...	...	...	9	2	2	...	1	...	2	...	135	4	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Quetta	1,837	397	...	1	...	775	8	10	...	...	16	75	68	16	2	...	6	25	96	2,003	56	4	33	22	37	21	...
		5	...	...	...	1	1	...	...	...	5	1	4	1	2	...	...	...	...	21		...	...	...	...	...	...
Peshin	463	...	...	...	...	284	5	1	2	...	3	16	20	4	...	...	...	1	9	452	16	...	1	5	3	1	...
		...	...	...	...	1	...	...	...	...	2	1	...	...	...	...	...	...	...	4		...	...	...	...	...	...
Shelabagh	79	...	...	...	...	39	3	...	...	...	4	3	6	1	...	...	2	...	...	83	3	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...	...
Spinwana	83	...	...	...	...	21	2	...	...	...	...	10	5	...	...	...	...	...	...	59	2	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Chaman	731	..	...	...	...	126	32	...	1	3	7	9	7	3	1	1	4	5	38	495	14	1	5	4	28	1	...
		...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	1	4		...	...	...	1	...	...
Mount Abu	84	...	...	...	...	34	...	...	...	...	...	1	...	...	...	...	...	...	...	41	1	...	...	...	...	2	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
Cotacamund	306	...	...	...	...	69	...	...	2	...	8	14	13	1	...	2	...	2	17	218	6	4	...	2	11	...	...
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4		...	...	...	...	...	...
GROUP XII.—HILL STATIONS.	20,430	400	3	3	32	8,427	579	63	13	90	324	759	1,014	302	3	27	91	378	975	19,886	758	273	132	228	342	65	...
		5	2	1	10	12	31	...	3	39	52	11	10	2	3	2	...	1	4	294		1	...	2	1	...	...
Marching in Bengal	1,022	...	...	...	...	68	3	...	...	...	1	2	17	3	...	...	...	2	4	133	3	4	...	...	...	...	...
		...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4		...	...	...	...	...	...
Marching in Punjab	2,244	...	...	...	...	241	10	1	...	1	18	18	51	12	...	1	...	20	55	698	12	25	5	5	20	5	...
		...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	9		...	...	...	...	...	...

Stations, Commands, etc.	Average annual strength.	1. Admissions. 2. Deaths.																												
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	All Causes.	Constantly Sick.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculus Medinensis.	Other Entozoa.
Marching in Madras	1,116	...	2	...	...	215	3	117	1	...	4	21	28	9	...	1	...	19	14	583	15	5	...	5	4	...	...
		...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	6		...	...	...	...	...	...
Marching in Bombay	1,524	...	...	...	...	145	5	4	1	...	9	9	41	7	...	...	...	3	16	383	6	2	...	3	11	5	...
		...	1	...	...	...	1	...	1	...	1	...	1	1	...	...	...	...	...	8		...	...	...	...	...	...
Hyderabad Contingent marching.	246	...	...	...	...	26	...	...	...	...	1	...	4	...	...	...	...	...	3	47	1	1	...	...	2	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...	...	...	...
Bunji Field Force	2,266	1	...	...	...	2,345	62	1	4	2	63	49	1,029	245	...	2	40	128	18	4,491	138	2	4	4	8	12	...
		...	...	...	...	7	9	...	...	1	20	2	8	4	...	1	...	...	...	63		...	...	...	...	...	...
Malakand Field Force	3,116	...	...	...	...	763	27	...	1	...	76	64	553	134	...	3	5	68	28	2,575	105	11	...	6	11	1	...
		...	...	...	...	5	2	...	...	...	12	1	2	...	...	...	...	...	1	131		1	...	...	...	...	...
Chat and Kurram Field Force.	990	...	...	...	2	552	27	6	3	2	6	14	232	14	...	...	...	19	32	1,091	23	16	...	5	11	...	...
		...	...	...	...	...	1	...	...	...	2	...	1	1	...	...	...	1	...	12		...	...	...	...	...	...
Mohmund Field Force	440	...	...	...	...	312	2	1	...	...	...	3	77	12	...	1	...	3	10	505	9	6	...	...	4	...	...
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	8		...	...	...	...	...	...
Tirah Field Force	4,287	...	...	...	2	1,583	64	2	...	1	106	176	1,097	274	...	10	9	186	124	5,079	232	49	8	18	49	3	...
		...	...	...	...	15	3	...	1	1	27	8	27	5	...	...	...	6	...	235		...	...	...	...	...	...
Aden	927	...	...	...	...	197	17	12	1	4	3	36	64	18	...	...	13	11	39	657	24	6	12	8	13	9	...
		...	...	...	...	2	...	...	...	1	1	1	1	...	...	...	1	...	...	11		...	...	...	...	...	...
Persian Gulf	88	...	...	...	...	22	...	1	...	...	...	4	1	3	...	2	1	1	2	59	2	...	...	2	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	3		...	...	1	...	...	...
Mombasa Field Force	42	...	...	...	...	19	1	...	...	...	3	...	4	1	...	...	...	1	18	57	1	...	...	...	18	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...
INDIA† Remaining from 1896.	129,802	9	1	10	1	561	77	10	15	32	168	153	114	14	2	11	25	119	456	3,207		153	47	122	134	4	...
Admitted.		695	109	53	51	45,026	2,063	1,212	182	335	1,682	3,229	8,623	1,821	9	160	362	2,343	5,295	108,841	4,085	1,539	552	1856	2,038	632	51
Died.		5	68	6	15	85	135	4	35	103	354	65	87	22	8	11	1	22	12	1,703		2	...	7	3	1	...
Died out of hospital.		...	3	...	...	...	1	...	8	...	1	1	1	1	...	...	...	...	...	316		...	...	...	...	...	...
Bengal	26,644	82	11	16	8	9,696	351	240	31	108	311	519	1,414	210	...	46	22	395	1,463	22,217	881	442	180	320	521	97	6
		...	7	3	3	21	23	1	6	39	48	13	11	3	...	3	...	3	...	243		...	...	...	...	...	...
Punjab	35,454	3	...	20	32	14,211	841	188	22	130	637	1,031	1,957	401	1	21	97	633	1,129	30,754	1,083	340	135	220	434	84	6
		...	...	2	10	16	52	1	4	44	152	19	16	4	1	1	...	2	4	470		1	...	2	1	...	...
Madras	23,588	30	55	7	2	5,065	168	48	75	48	130	545	825	189	2	33	12	603	1,142	16,751	761	309	74	319	440	79	27
		...	37	...	...	8	18	1	13	9	27	7	6	1	1	2	...	5	2	223		...	...	2	...	...	...
Bombay	26,421	460	25	10	5	8,697	434	269	43	33	303	774	1,130	331	5	37	115	291	1,179	21,708	724	310	148	242	479	342	8
		5	15	1	2	9	21	1	10	7	62	13	12	4	5	3	1	4	4	277		...	...	2	2	1	...
Hyderabad Contingent.	6,554	119	18	...	...	1,483	86	17	3	11	45	54	305	10	1	7	62	16	152	3,613	127	54	3	32	63	14	4
		...	9	...	...	4	5	...	1	2	4	2	3	...	1	1	...	1	1	41		...	...	1	...	...	...

* Remaining + admitted = total treated. Remaining + admitted + died out of hospital = total cases.
† Including Imperial Service Troops on field service.

TABLE XXIX—*concluded.*

ACTUALS of GROUPS and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

Groups and Commands.	1. Average Strength. 2. Constantly Sick.												Total.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
I.—Burma Coast and Bay Islands.	2,489	2,334	2,293	2,214	2,192	2,146	2,167	2,151	2,168	2,224	2,217	1,984	26,579
	54	59	70	66	57	61	62	61	70	57	72	70	759
II.—Burma Inland	5,362	5,789	5,327	5,218	5,135	5,270	5,059	5,367	5,374	5,402	5,599	5,149	64,251
	200	221	216	200	175	185	205	205	197	205	210	159	2,378
III.—Assam	1,966	1,924	1,932	1,691	1,685	1,708	1,704	1,724	1,703	1,759	1,829	1,863	21,488
	78	73	64	61	65	61	83	99	99	79	103	96	961
IV.—Bengal and Orissa	3,654	3,438	3,181	2,733	2,736	2,756	2,674	2,747	2,828	3,177	3,312	3,470	36,706
	129	126	103	92	101	89	99	111	98	120	160	169	1,397
V.—Gangetic Plain and Chutia Nagpur.	7,719	7,783	6,833	6,054	6,064	5,990	5,615	5,538	5,368	6,080	6,511	5,982	75,537
	199	169	141	134	122	107	125	120	156	233	277	248	2,031
VI.—Upper Sub-Himalayan	19,779	19,835	17,791	15,969	15,095	15,513	14,331	11,273	10,752	11,648	11,834	12,632	176,452
	406	365	289	286	286	307	303	357	438	488	568	611	4,704
VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana.	17,826	17,901	16,146	14,320	13,920	13,669	14,420	16,687	14,067	14,198	15,334	14,754	183,242
	437	402	284	247	218	257	307	440	631	949	1,167	998	6,337
VIII.—South-Eastern Rajputana, Central India, and Gujarat.	14,476	14,065	12,864	11,383	11,312	11,778	12,322	11,532	11,013	11,511	12,347	11,829	146,432
	350	321	289	271	267	274	284	362	419	446	473	384	4,149
IX.—Deccan	21,749	21,447	21,416	19,849	19,227	19,553	19,737	18,875	16,979	17,310	16,705	16,800	229,647
	464	486	459	431	429	395	489	550	586	629	603	501	6,022
X.—Western Coast	2,856	2,822	2,878	2,953	2,973	2,805	2,455	2,478	2,591	2,719	2,923	3,246	33,699
	83	80	86	75	81	77	91	97	107	94	100	98	1,069
XI.—Southern India	9,029	9,646	9,291	8,749	8,325	8,428	8,282	8,116	7,158	7,195	7,288	7,241	98,748
	313	324	312	269	266	248	261	279	228	237	265	257	3,259
XII.—Hill Stations	23,297	24,226	24,416	23,266	22,671	23,204	23,477	18,003	16,455	15,204	15,320	15,626	245,165
	751	748	729	709	651	720	784	802	914	800	735	755	9,098
INDIA	140,010	139,810	131,054	121,152	118,049	118,764	121,045	127,714	128,751	134,758	138,675	137,842	1,557,624
	3,546	3,460	3,126	2,907	2,784	2,825	3,178	3,965	4,982	5,905	6,628	5,710	49,016
Bengal	32,718	32,374	29,451	26,614	25,919	25,928	25,130	23,422	22,162	24,344	25,583	26,086	319,731
	918	849	759	722	660	628	706	813	980	1,097	1,207	1,229	10,568
Punjab	43,843	43,664	40,739	38,157	37,455	37,789	36,868	33,379	28,403	27,693	28,653	28,804	425,447
	1,029	944	759	724	745	850	900	1,013	1,221	1,517	1,743	1,555	13,000
Madras	25,933	26,267	24,886	23,710	23,037	23,127	23,247	23,431	22,105	22,071	22,421	22,817	283,052
	760	815	860	775	716	697	764	787	756	738	764	703	9,135
Bombay	30,093	30,135	28,710	26,362	25,567	25,796	26,164	25,166	24,020	24,206	25,364	25,468	317,053
	708	731	636	574	561	557	632	765	868	876	962	821	8,691
Hyderabad Contingent	7,421	7,370	7,268	6,309	6,071	6,124	6,226	6,396	6,114	6,486	6,486	6,381	78,652
	131	121	112	112	102	93	118	152	171	161	130	116	1,519

TABLE XXX.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

The ratios of sickness and mortality will be found in Table XXVIII.

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
Manipur	Bengal	Malarial fever was due to some climatic cause, as a regular epidemic wave of fever passed over the valley. The civil population suffered severely, and the mortality amongst them was excessive. The fever generally was of short duration. A curious feature of the fever, and which clearly indicated its epidemic nature, was that people living at a high elevation were great sufferers from it, and the mortality in the hills has been just as heavy as it has been in the valley. The European community hardly suffered at all. The increase in venereal was due to the fact that the men had been out in cholera camp for almost a year, and on their return to Manipur a great many men became infected through indiscretion. There was more fever and venereal amongst the men of the 44th Gurkha Rifles than amongst those of the 43rd. A certain amount of the drainage system has been carried out in accordance with the plan sanctioned. The tanks, old wells, and the Nag *nullah* should be filled up, as they are always a great source of sickness, etc. Three masonry wells have been sanctioned, of which one has been nearly completed. This well is now being used by the garrison. The water is good, and there is no source of contamination in the method of drawing or distributing it. The latrines are bad. These are built of bamboo, which quickly rots and makes the moveable system very difficult to carry out. The disposal of sewage is satisfactory, all being burnt in two cinerators.
Fyzabad	"	Venereal diseases were prevalent throughout the year, but there has been no unusual sickness. The water-supply is good and sufficient. The drinking water for the native troops is obtained from open wells, which are not liable to contamination from any special source.
Dehra Dun	"	No disease has been unusually prevalent at any particular time of the year. There have been no epidemics of cholera this year. Any slight increase of fever at certain times was simply due to climatic influence. The drainage is good. There are no *jheels*, marshes, etc., in the cantonment or its vicinity. The water-supply is good and abundant. There is a scheme under consideration for carrying the water-supply in iron pipes throughout its whole length. At present the upper portion of the supply is carried in a closed masonry channel, but it has been found that this is liable to be perforated by roots of trees, and consequently there is danger of pollution. A scheme for supplying the troops and native population of the cantonment with moveable iron latrines is also under consideration, but has not yet been carried out, as the sanction of Government has not been received. The prevalence of eye affections, especially amongst the married men, is in a great measure due to the faulty arrangements in their quarters for cooking purposes causing a smoky atmosphere. This may also account in some measure for the lung affections. In this connection the District Principal Medical Officer remarks: "I concur in the above remarks, and cannot but think that all the conjunctivitis and most of the tubercle of the lungs are due to the faulty construction of the married quarters, and to the system of cooking in these houses. It will be found that the majority of cases of both classes occur among the married men. A scheme has been under consideration for some time whereby a portion of the verandah adjoining each married quarter is to be enclosed for cooking purposes. *Immediate* beneficial results can hardly be looked for, as the irritating smoke has so weakened the eyes of many men, women, and children as to induce a form of chronic conjunctivitis, which becomes acute on any slight exciting cause. Similarly, with tubercle, the predisposition has been established in many cases."
Agra	"	See Table V.
Saugor	"	Murhia village, in the vicinity of the native infantry hospital, is frequently dirty and insanitary, especially during the rains, when the prevailing winds blow across the village towards the native infantry hospital and lines. See also Table V.
Kohima	"	Malarial fevers were due to climate, and to a number of furlough men contracting the disease on their return journey. Tubercle of the lungs is frequently met with among hill men. Beyond the prevalence of malarial fevers, there has been no unusual sickness. The water-supply comes from a stream 1½ miles above cantonments. The water is of excellent quantity at its origin, but was liable to contamination owing to passage along open channels during its course. It is now brought in pipes from its origin to the tanks, from which it is distributed by taps. It is abundant in quantity. The District Principal Medical Officer remarks: "To improve the ventilation of the married quarters roof ventilation should be provided, and it would be an improvement if ceiling cloths were provided in all the barracks. The ravines near the lines should be kept scrupulously clean, and the latrines should be carefully looked after."

TABLE XXX—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS—contd.

STATIONS.	COMMANDS.	Sanitary defects, improvements, suggestions, etc.
Shillong	Bengal	Cholera was prevalent in Mukhar, outside cantonments, and was most probably contracted there. The increase of admissions is due to the large number of ague and surgical cases admitted into hospital. The ague is considered to have been due to exposure and the surgical cases to the large amount of fatiguing work the men had to do in consequence of the earthquake. There is a *jheel* between the hospital and the 42nd Gurkha Rifle lines, but it is well drained. The water-supply is good and not open to contamination, as pipes have been laid up to the head works. There is practically no water-supply for Jhaluparah, except from a stream which is liable to contamination. Owing to the destruction of the barracks by the earthquake, there was a good deal of over-crowding. The troops have suffered a good deal from symptoms of survey owing to the want of fresh vegetables in their diet. Lime-juice parades have been employed with good effect. The District Principal Medical Officer remarks: "Owing partly to structural defects and partly to damage done by the earthquake on the 12th June 1897, the floors of the latrines in the regimental lines are in an insanitary condition. The floors of these latrines should consist of a layer of concrete covered with really good Portland cement. The walls and roofs of the latrines should consist of corrugated iron sheets. Pipe-water should be laid on at Jhaluparah as soon as practicable."
Kangra	Punjab	The largest number of admissions was from malaria. It occurred more especially among men shortly after return from field service from the middle of November to the end of the year; whilst those just returned from furlough in Nepal leave in the Kangra District, or duty at Kangra Fort, as also recruits, were also liable to have the disease. It is, however, interesting to note the marked decrease in this disease since the regiment left lower lines surrounded by rice-field and moved up to this station in April 1895. The diseases which accounted for the next largest number of admissions were those of venereal origin.
Edwardesabad	"	At the beginning of the year, and for the first 6 months, the amount of disease was about usual. During the last half of the year all the corps stationed here, especially the 6th Madras Infantry, suffered from an unusual amount of fever. This was chiefly due to the heavy (for this part) and late rains, as well as to the unusually hard duties to which the men were subjected. There is a well-protected deep masonry well inside the fort. The water-supply both in quality and quantity is good. The chief danger to the health of the cantonment lies in its proximity to the fields which surround it on all sides. Unless a belt of land can be acquired, the irrigated fields, generally used as latrines by the villagers all round, will continue to be the principal defects of the cantonment from a sanitary point of view. Of minor improvements, the distribution of drinking-water in the cavalry lines by means of pipes will be an improvement on the existing system. The District Principal Medical Officer remarks: "This cantonment is in close proximity to low-lying irrigated fields which may account for malarial diseases. There was a very unusual amount of such sickness during September, October, November and December, more especially in the 6th Madras Infantry. Water should be laid on in pipes to the cavalry lines. But, indeed, the insanitary condition and almost ruinous state of these lines, owing to the plague of myriads of rats, may lead eventually to their final evacuation. The rat holes permeate the foundations, floors, walls and even roofs. Water lodges and becomes stagnant in the holes, and the whole position is a source of danger. Special correspondence has passed on the subject."
Khajuri Kach	"	The great excess over last year in admission under ague is accounted for by the almost epidemic form in which it raged in the district during the last three months of the year. Dysentery and bronchitis, which were also very prevalent, are accounted for by the debilitating effect of ague which attacked almost every man in the regiment. The mortality from malarial fevers and dysentery was also very high. The causes of the diseases were chiefly climatic.
Dharmsala	"	The prevalence of malarial fevers is accounted for by the fact that, though the station itself is situated at a height at which malarial fevers are not common, and of a mild type when contracted, the inhabitants frequently visit the plains where rice is largely cultivated. The very great prevalence of venereal diseases is due to the amount of venereal affections from which the inhabitants of Kangra valley suffer, and to the fact that diseased prostitutes reside in all the villages in the vicinity of cantonments. The two cases of enteric fever and the dysentery and diarrhœa cases are almost certainly traceable to the unsatisfactory water-supply of the station. The increased amount of sickness in the 1-1st Gurkha Rifles during the year, as compared with that of the last year, may be accounted

Stations.	Commands.	Sanitary defects, improvements, suggestions, etc.
harmsala—*contd.*	Punjab - *contd.*	for by the fact that the three hundred odd men who went on field service and with the Simla detachment were picked men on account of good health and physique. The large increase in the amount of sickness in the 2nd battalion depôt is due to the fact that most of the men left behind were weak and sickly, and also to the number of men who have come back to the depôt from field service suffering from malarial fevers, debility, and gunshot wounds. The water-supply of the 1-1st Gurkhas is derived from a distant spring (2 miles). The water is good and plentiful, but, owing to paucity of mules, only a certain number of the population can be provided, the rest having to depend on an open irrigation channel exposed to contamination from sewage matter almost throughout its length, and consequently a great menace to health. This channel is closed for nearly three months of the year, when there is no water available. The spring above named is out of cantonments. There is absolutely no water-supply in the upper cantonment for the 1st Battalion. For the 2nd Battalion there is a spring in the lines, but it becomes very scanty in time of drought. It obtains a part of its water from the open channel above named, as has been proved by experiment lately. This spring ran dry in December owing to this channel not having been running in the neighbourhood for some time. On the channel water being turned on, water at once was found in the well to the extent of 2 feet, and of a muddy colour. The water in this spring is decidedly bad. *Mussacks* are still in use. A good uniform supply of water is required for the station, *i.e.*, a pipe distribution system from a good source under control from its origin to its end. The Glenmore springs have been under consideration by the Military Works Department during the past year, and have been found to give sufficient water all the year round to allow of a supply of 10 gallons per head per diem to Europeans, and 5 gallons to natives. This scheme was found quite feasible, and the cost is not prohibitive. *Mussacks* should be abolished and replaced by metal vessels of a suitable size. This water-supply should be so constructed as to allow of the construction of well built *dhobis'* ghats in, or close to, cantonments, and these should have thorough supervision. The conservancy establishment here is not sufficient for the removal system, and is far below the authorized regulation numbers.
bbottabad	"	Malarial fevers were due to climatic influences and rapid changes in temperature. Conjunctivitis was due to specific infection of local origin. There has been no unusual sickness this year. The pipe water-supply is deficient in quantity before and after the rains in dry seasons. Water has now been laid on in pipes, but the catchment area is liable to contamination. There are, besides, numerous wells in the station. In a sanitary point of view it is most important for the cantonment that the drainage of the city, which passes quite close to the infantry and artillery hospital, and through the artillery lines, should be diverted. At present the condition of things is most unsatisfactory, and a danger to the cantonments. Although the collecting tank for drinking water is in a good situation, still it is liable to contamination, through not being closed up. In the hot weather both before and after the rains the water-supply is deficient.
Datta Khel	"	No Sanitary Report.
Keng Tung	Madras	The prevalence of ague is due to the peculiar climate of the place. The cantonment is situated in a valley which receives the drainage of the surrounding hills, thereby rendering it damp. The ploughing up of the fields, when paddy is being sown, as also the presence of a large amount of decayed vegetable matter in the soil, are probably the chief factors in its causation. The greater number of men here are saturated with malaria contracted last year probably, and this also might be taken as a reason of its prevalence this year. In comparison with last year, however, the prevalence of ague has been decidedly less, owing to the fact that the men are now properly accommodated, and have not had to undergo the same amount of exposure as they did last year, while the buildings were in the course of construction. The decrease is also due to other causes, such as clearing away of jungle by degrees, the establishment of drainage in the lines, and the habitation of the place. As last year, the British officers have suffered much less in proportion than the native troops, owing to their being placed under better conditions. There are one or two small marshes within cantonment limits, which require to be drained. An estimate has been submitted for improved drainage. The water-supply is from springs, and is good and sufficient. It may be contaminated at interval by surface drainage gaining access to the stream. A pipe system of supply is under consideration. The District Principal Medical Officer remarks that "the prolonged exposure, imperfect shelter and encampment on malarious ground, produced an alarming amount of fever amongst the men, from the effects of which they will not recover for a considerable time. Whether the surrounding country

TABLE XXX—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

Stations.	Commands.	Sanitary defects, improvements, suggestions, etc.
Keng Tung—*contd.*	Madras—*contd.*	is unusually malarious or not I am unable to say positively, but am inclined to think that it is not, as the inhabitants of the tow of Keng Tung, which is situated on slightly elevated ground o in the paddy place, and about four miles from the cantonmer look as healthy as average villagers in the Southern Shan State For the reasons stated the men were at the very commenceme poisoned by malaria, but I hope the men of the next regiment, wh will begin life there under more favourable conditions, will be mo healthy."
Maymyo	"	No Sanitary Report.
Mindat-Sakan	"	No Sanitary Report.
Belgam	"	Cholera was raging in the surrounding villages and in the city, bu except in the case of a child, the source of contagion could not b traced. Plague was undoubtedly imported from Poona or Bomba Its prevalence was due to general bad sanitation and the utt recklessness of the population. The native troops, and particular the 26th Madras Infantry, suffered very severely from plagu Men, women, and children were equally affected. For troops th water-supply is obtained from wells, and is of excellent quality, b apt to run short in hot weather. It is under contemplation by th municipality to introduce a scheme for supplying the cantonmer and city with water, which will perhaps be an improvement on th present well supply. New public latrines of an improved patter are in course of construction as funds allow.
Vizianagram	"	There was no unusual sickness during the year. The water-suppl was, as a rule, good and sufficient, but occasionally very limite in amount, and contained a large amount of sediment, owing t want of rain. There is no source of contamination.
Berhampur	"	Cholera was imported from Puri festival and from Rajmundr bathing festival in June 1896. The regiment arrived here on th 14th January 1897, and the first case of cholera appeared on th 3rd February 1897. The disease was probably contracted in th civil bazars or from drinking impure tank water. There has bee no unusual sickness in the regiment during the past year. Th regiment has kept unusually good health. The drainage of th whole town and surroundings is defective. The sub-soil wat stands at a very high level, being only about 2 to 3 feet below th surface. A number of houses in the lines are very damp. Th flatness of the surrounding country, and the large number of tank scattered about the municipality and in the neighbourhood of th lines, are the cause of this defect. There is also a marshy *jhe* close to the regimental lines, which is not conducive to health. Th drinking water-supply of the native population is as bad as could very well be. This, as also the bad drainage, and the insan tation of the municipality, was taken notice of by the Distri Principal Medical Officer in 1896. The regiment obtains i drinking water from two wells near the parade ground. Thes are protected from pollution, but inconvenient, because of th distance from the lines. There are no drinking water wells in th lines. The channel by which the municipal tanks are filled wit water is very much exposed to pollution in its course. It is oper although it passes through three or four most filthy villages, an open ground in the municipality. The channel should be covere in in its whole extent near the town, or its course diverted throug less populous parts. The huts in the lines being very dam during the monsoons and for sometime after, it is strongly recom mended that the floors of the quarters be laid with some imperme able substance, and that some system of deep drainage be adopte for lowering the level of the sub-soil water in the vicinity of the line The drainage at present is entirely surface or natural.
Kurrachee	Bombay	Malarial fever and ague prevailed throughout the year, but increas ed greatly from the middle of October to the end of the yea The water-logged condition of the cantonment and town is th cause to which this prevalence of ague seems to be due. Ther has been no unusual sickness among the native troops as com pared with other years. There is great need of drainage an sewerage in cantonments and in the adjacent municipal land The latter is the main source of the unhealthy condition. Ther is an ample supply of good water by pipes, and no exposure t contamination.
Sirdarpore	"	Cholera prevailed at Amjhera, an important village 11 mile distant, and also in some of the neighbouring hamlets, and th microbe was probably imported through these channels. Guinea worm is almost entirely contracted on service at the outposts, th source being water. The great increase in cases of guinea-worn

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
irdarpore—*contd.*	Bombay—*contd.*	is probably due indirectly to the deficient rainfall of 1896; the water in pools and *nullahs* being less in quantity, and, therefore, more impure, during the succeeding hot weather of 1897. There are no trench latrines, or latrines of any kind, for the rank and file of the regiment. The water-supply is abundant and of fairly good quality. It is formed by the bunding of the river. It is liable to contamination from many sources above the civil bazar as well as from regimental lines. The well water-supply is insufficient. It is suggested that either the outskirts of the village north of the lines be removed, or the houses be built up to a certain standard, and in future no additions be allowed; that the civil jail and its latrines be removed and built elsewhere; that regimental latrines be put up for men and women; and that the Bhopuwar spring-water be brought into the station. This is a matter that has been long advised by the agency surgeon.
Jodeypore	"	No Sanitary Report.
eawar	"	The cantonment (so-called) is situated in the town of Beawar, and is surrounded on all sides by bazars or private houses which are entirely under municipal control.
ndore	"	Fever and dysentery were due to malaria and climatic influences. Drainage is good; no marshes or *jheels* in the vicinity. The water-supply is sufficient and of good quality. The District Principal Medical Officer remarks that "the principal diseases from which the troops here suffer are malarial fevers, dysentery and venereal affections. The cause of the malarial fever is defective and insufficient drainage. The barracks are situated on black cotton soil; and as there is a very imperfect fall for the drainage, the difficulties in this point are great. I consider the excessive admission rate for dysentery amongst the native troops to be due to inferior food supplies owing to the dearness of provisions; to the want of sufficiently high plinths to the huts; and to the huts being built on black soil. I recommend that the floors of the huts be raised as high as the buildings will permit."
Kamptee	"	That the men suffered so much during the year was due to the fact of the year being most unhealthy, and to the men being predisposed to diseases owing to their systems having been affected in previous years by repeated attacks of malarial fevers. The water-supply is good both in quality and quantity. There is no source of contamination. Except in the case of a few families in the lines there was no overcrowding. There was a deficiency of 27 feet superficial space and 150 cubic feet per man in some of the huts which were overcrowded.
Poona	"	Plague was epidemic in the city, cantonment, and the surrounding country. Plague accounted for 92 cases amongst the native troops. The water is sufficient in quantity and excellent in quality, and is brought from the Khadakwasla canal. This canal, being open, is liable to contamination. The chemical analysis is, however, satisfactory. The District Principal Medical Officer remarks that "without bacteriological examination of the water supplied to the inhabitants, it is impossible to assert that the quality is good. The supply must be contaminated, flowing, as it does, for miles in an open channel. During the rains the water deposits a considerable sediments; and if these coarse particles can pass through the filter beds, it is not possible to believe that all living organisms can be removed."
Kirkee	"	The water-supply is sufficient in quantity and good in quality, but muddy in the rainy season, and open to contamination at the source of the supply. These defects are being remedied by the Irrigation Department. The storage reservoirs in the Bombay Sappers and Miners' lines allow of vessels being dipped into them, and thus water can be contaminated. The District Principal Medical Officer remarks that "moveable latrines for the use of the natives employed about the Kirkee barracks are required. Surface drainage should be substituted for the waste water receptacles at the back of the married quarters. The system which obtains for distributing the drinking water in the lines of the 28th Bombay Pioneers should be introduced into the lines of the Sappers and Miners."
Sirur	"	Small-pox prevailed from January to June, cholera in June and July, and plague from August to November. The cause of cholera was infection from river water; that of small-pox and plague, infection from the town. The water-supply, which is derived from the river Ghod, is unsatisfactory. Cholera appears almost every year, and is always attributed to this water-supply. The District Principal Medical Officer remarks: "A good supply of pure water from deep wells is urgently required. At present the water is obtained from the Ghod, and this is believed to be the cause of outbreaks of

TABLE XXX—*concluded.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.

Stations.	Command.	Sanitary defects, improvements, suggestions, etc.
Sirur—*contd.*	Bombay—*contd.*	cholera. The men's lines are so close to the native town that any infecting disease occurring in the latter invariably spreads to the former." The General Officer commanding the district remarks "There is plenty of good water in the Sirur wells; and when there is any cholera about, the men of the regiment can be prohibited from going to the river for water. The site of the Poona Horse lines cannot be altered without spending two *lakhs* of rupees."
Nasik	„	No Sanitary Report.
Bombay	„	The whole of Bombay was infected by the plague during the year. The water-supply is good and abundant, the water being carried by pipes from the reservoir.
Fort Sandeman	„	During the summer months lack of vegetables causes scurvy. Variable temperature and damp sub-soil cause malaria in the autumn. Mumps probably was introduced from elsewhere. There was no unusual sickness except the epidemic of mumps. The drinking water is of excellent quality, being brought from Kapip, eight miles distant, and drawn off at stand pipes. The accommodation in the cavalry lines is deficient by 26,000 cubic feet, not reckoning the accommodation required for *syces*. An old Royal Artillery barrack has been given as an extra hospital, and there is now little or no overcrowding.
		The buildings used as hospitals are not suitable, being draughty and difficult to heat, and having mud floors. Always, but especially in hot weather, trouble is experienced in procuring vegetables. *Atta* occasionally becomes almost prohibitive in price. Other food stuffs procurable are of average quality, but all expensive. The difficulty in connection with a sufficient supply of water for irrigating cantonment and regimental gardens during the summer months still remains. A new method of apportioning the water-supply has been instituted, and it remains to be seen how it will succeed. The supply of *atta*, and other food stuffs is in the hands of the local grain merchants and is not satisfactory, but there appears no remedy for this. A properly constructed hospital is much needed.
Quetta	„	There was no overcrowding. The position of the native cavalry lines is undoubtedly faulty, being in the centre of the station instead of in the outskirts, and in close contact with the Royal Artillery and Infantry messes. Attention is invited to the want of properly constructed *dhobi* ghats throughout the station, and secondly, to the unsatisfactory sanitary condition of the Thames *nullah*, a stream separating cantonments from the city, and smelling foully at all seasons, but especially during hot weather.
Shelabagh	„	No Sanitary Report.
Bagdad Bushire Muscat	„	No Sanitary Reports.

TABLE XXXI.

INFLUENZA by months, stations, groups, and commands.

TABLE XXXII.

CHOLERA by months, stations, groups, and commands.

Stations.*	Admissions from Influenza in each month.													Admissions from Cholera in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Moulmein	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Rangoon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Group I.—Burma Coast and Bay Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2
Fort Dufferin	...	...	...	...	...	...	...	...	...	...	14	...	14	...	...	...	...	...	...	...	...	...	...	...	...
Myingyan	...	2	...	1	1	...	...	...	...	...	...	...	4	...	...	...	1	...	...	...	...	...	...	...	1
Group II.—Burma Inland	...	2	...	1	1	...	...	...	...	...	14	...	18	...	...	...	1	...	...	...	...	...	...	...	1
Ballygunge	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Group IV.—Bengal and Orissa	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
B																									
Allāhabad	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...	...	...	3
Lucknow	...	...	...	...	...	...	...	...	...	59	4	1	64	...	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	1
Fatehgarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Group V.—Gangetic Plain and Chutia Nagpur	1	...	...	...	2	...	...	...	...	59	4	1	67	...	...	...	...	...	1	3	...	1	...	...	...	5
A																									
Dehra Dun	...	...	...	...	...	...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Delhi	...	...	...	8	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VI.—Upper Sub-Himalayan	...	...	...	8	...	...	2	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
A																									
Dera Ismail Khan	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
A																									
Bhuj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2
B																									
Sirdarpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	...	5
Erinpura	...	...	7	3	5	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Jhansi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	2
Goona	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Sehore	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	2
Indore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Mhow	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Group VIII.—South-Eastern Rajputana, Central India, and Gujarat	...	...	9	3	5	...	...	...	...	...	...	...	17	...	...	...	1	1	1	1	7	4	...	...	...	15
A																									
Raipur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	4
Kamptee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
B																									
Hingoli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...	...	...	...	6
Aurangabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	2	1	...	...	8
Malegaon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Ahmednagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Mominabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Bolarum	...	...	50	55	14	...	...	...	...	...	...	...	119	...	...	...	...	...	1	2	...	...	...	...	...	3
Secunderabad	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	5	6	3	1	...	...	...	15
Belgam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	3
Satara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2
Poona	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
Kirkee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Sirur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2
Group IX.—Deccan	1	...	50	55	14	...	...	...	1	...	...	...	121	...	...	1	1	2	10	16	14	3	3	...	...	50
Bombay	...	...	...	...	...	...	...	...	39	4	4	...	47	...	...	...	...	...	...	...	1	1	...	...	...	2
Group X.—Western Coast	...	...	...	...	...	...	...	...	39	4	4	...	47	...	...	...	...	...	...	...	1	1	...	...	...	2

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table XXVIII.

TABLE XXXI—*concluded.*

INFLUENZA by months, stations, groups, and commands.

TABLE XXXII—*concluded.*

CHOLERA by months, stations, groups, and commands.

Stations.	Admissions from Influenza in each month.													Admissions from Cholera in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Bellary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	1	...	12
Bangalore	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	1	...	...	1	...	...	...	...	...	...	2
B																									
Trichinopoly	...	...	...	1	2	...	...	...	2	4	...	...	9	...	1	...	1	...	...	...	...	...	...	...	...	2
St. Thomas' Mount	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
C																									
Vizianagram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	6	...	2	...	...	...	...	...	11
Group XI.—Southern India	...	...	...	1	2	2	...	...	2	4	...	...	11	1	2	3	1	6	1	2	...	1	11	1	...	29
Maymyo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	3
Ranikhet	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wana	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	93	58	41	49	60	77	19	...	...	...	...	...	397	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XII.—Hill Stations	93	58	41	49	60	77	20	...	...	...	...	2	400	...	...	...	3	...	...	...	...	...	...	...	...	3
Marching in Madras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	2	...	...	...	...	...	2
Tochi Field Force	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA	97	61	100	117	84	79	22	...	42	67	23	3	695	1	3	4	7	10	13	24	22	10	14	1	...	109
Bengal	3	...	2	8	2	...	3	...	...	59	4	1	82	...	...	...	1	1	1	3	4	1	...	...	...	11
Punjab	...	1	...	...	...	...	...	...	...	...	...	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	1	2	...	2	3	2	...	...	2	4	14	...	30	1	3	3	5	8	6	10	3	2	13	1	...	55
Bombay	93	58	48	52	65	77	19	...	40	4	4	...	460	...	...	1	1	...	5	6	7	5	...	...	...	25
Hyderabad Contingent	...	...	50	55	14	...	...	...	...	...	...	...	119	...	...	...	...	1	1	5	8	2	1	...	...	18

TABLE XXXIII.

ENTERIC FEVER by months, stations, groups, and commands.

TABLE XXXIV.

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

STATIONS.*	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.													ADMISSIONS FROM SIMPLE CONTINUED FEVER IN EACH MONTH.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Rangoon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
GROUP I.—BURMA COAST AND BAY ISLANDS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Meiktila	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8	2	6	16	5	12	11	6	...	67
Thabeitkyin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Bhamo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2
GROUP II.—BURMA INLAND	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	8	3	6	16	5	12	12	6	...	70
Manipur	...	1	...	...	...	1	...	2	...	...	...	...	4	1	...	2	2	2	2	2	4	...	...	5	2	22
GROUP III.—ASSAM	...	1	...	...	...	1	...	2	...	...	...	...	4	1	...	2	2	2	2	2	4	...	...	5	2	22
Alipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	3	1	1	...	...	...	...	8
Barrackpore	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	6	6	...	6	2	...	...	...	1	...	24
GROUP IV.—BENGAL AND ORISSA	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	7	6	2	9	3	1	...	...	1	...	32
B																										
Benares	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Allahabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	3
Fyzabad	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Cawnpore	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	3	...	...	4
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	1	...	...	1	...	1	...	...	...	...	...	...	3	1	...	1	...	...	2	...	...	1	3	1	1	10
A.																										
Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...	9	3	4	4	3	3	9	2	...	...	...	...	37
B.																										
Ferozepore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	1	...	...	9
GROUP VI.—UPPER SUB-HIMALAYAN	...	...	...	...	...	...	...	...	...	...	...	...	...	9	3	4	4	3	3	9	5	5	1	...	...	46
A.																										
Kohat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	1	...	4	...	...	10
Edwardesabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	9	56	53	...	119
Dera Ismail Khan	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Dera Ghazi Khan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	18	9	...	44
Mooltan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	3
C.																										
Hyderabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	3	1	4	3	26	78	62	...	179
A.																										
Bhuj	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	2	7	1	4	4	22	14	2	59
Rajkot	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	...	...	...	...	...	...	...	...	...	5
Deesa	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	4	...	...	2	1	3	...	...	1	...	14
Baroda	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	3
Surat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
B.																										
Kherwara	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Neemuch	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	3	1	1	1	1	...	...	...	...	...	10
Jhansi	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Agar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Schore	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	10	12	7	3	9	7	9	15	8	3	87
Indore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	3
Mhow	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	7	2	4	...	2	...	...	21
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	...	...	...	...	...	...	...	...	...	1	...	2	3	9	9	19	16	17	22	14	18	13	39	24	5	205

* Stations where neither Enteric nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

TABLE XXXIII—*concluded.*

ENTERIC FEVER by months, stations, groups, and commands.

TABLE XXXIV—*concluded.*

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

Stations.	Admissions from Enteric Fever in each month.													Admissions from Simple Continued Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Saugor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	2	1	...	...	...	...	...	...	6
Sambalpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	4
Sitabaldi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2
B																										
Ellichpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Hingoli	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	3
Aurangabad	...	...	...	...	...	..	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	2	...	...	5
Ahmednagar	...	...	...	1	1	1	...	...	...	...	...	...	3	1	2	1	7	2	4	9	1	3	...	1	...	31
Bolarum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	...	...	...	7
Secunderabad	...	...	...	...	...	...	...	...	...	...	...	...	...	3	9	5	4	...	4	...	...	...	...	...	...	25
Raichur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Poona	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	6	3	2	10	15	11	15	7	77
Kirkee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	4
Group IX.—Deccan	...	...	...	1	1	1	...	...	...	...	...	...	3	6	18	10	17	10	12	12	19	23	15	17	7	166
Bombay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	1	4
Cannanore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	2	...	...	...	5
Quilon	...	...	...	...	...	...	...	...	...	...	...	...	...	6	4	5	5	4	1	1	4	7	3	4	3	47
Trivandrum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	2
Group X.—Western Coast	...	...	...	...	...	...	...	...	...	...	...	...	...	6	8	5	5	5	1	1	7	9	3	4	4	58
A																										
Bellary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	6	1	2	5	1	...	...	...	...	19
Bangalore	...	...	...	...	...	...	1	...	...	...	...	...	1	1	4	7	11	20	8	13	10	4	4	4	...	86
B																										
Trichinopoly	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Madras	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	7	7	4	1	8	17	14	14	20	5	106
C																										
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Group XI.—Southern India	...	...	...	...	...	...	1	...	...	...	...	...	1	4	10	18	24	25	14	26	28	18	18	24	5	214
Maymyo	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	5	1	...	...	...	...	...	...	...	6
Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	...	...	...	...	...	1
Lansdowne	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	8	12	21	44
Chitral	...	...	...	...	2	2	8	4	4	1	2	...	23	...	...	...	...	...	...	...	1	...	...	...	...	1
Sarwekai	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wana	...	...	...	...	...	8	...	...	..	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	6	...	...	...	...	10
Peshin	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Group XII.—Hill Stations	...	...	...	...	2	10	8	4	5	1	2	...	32	1	...	...	6	2	3	1	6	3	8	12	21	63
Marching in Punjab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
,, Madras	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	99	1	...	...	...	...	...	...	...	...	117
,, Bombay	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	4
Tochi Field Force	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Kohat and Kurram Field Force	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	4	2	...	...	6
Mohmund Field Force	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Tirah Field Force	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	1	...	2
Aden	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2	1	2	1	...	...	...	...	12
Persian Gulf	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
INDIA	1	1	...	2	3	13	9	6	6	3	4	3	51	39	67	168	93	75	81	90	100	115	180	157	48	1,212
Bengal	1	1	...	1	...	2	...	2	...	...	...	1	8	14	9	25	24	16	21	24	14	13	26	27	27	240
Punjab	...	...	...	...	2	10	8	4	5	1	2	...	32	1	...	...	...	2	2	4	7	31	79	62	...	188
Madras	...	...	...	...	...	...	1	...	...	...	1	...	2	13	41	129	47	34	25	43	40	39	33	34	10	488
Bombay	...	...	...	...	1	1	...	...	...	...	1	...	5	9	14	13	22	23	32	18	31	27	37	33	10	269
Hyderabad Contingent	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	1	...	...	...	1	7	1	2	...	...	17

TABLE XXXV.

INTERMITTENT FEVER by months, stations, groups, and commands.

TABLE XXXVI.

REMITTENT FEVER by months, stations, groups, and commands.

Stations.*	Admissions from Intermittent Fever in each month.													Admissions from Remittent Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	2	...	2	4	6	7	10	2	3	2	3	2	43	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein	...	...	2	...	...	3	...	4	...	...	3	2	14	1	...	...	...	...	...	...	...	...	1	...	...	2
Rangoon	18	8	23	11	14	14	12	6	6	6	16	19	153	...	...	...	...	...	...	...	...	...	...	...	...	...
Group I.—Burma Coast and Bay Islands	20	8	27	15	20	24	22	12	9	8	22	23	210	1	...	...	...	...	...	...	...	...	1	...	...	2
Thayetmyo	8	3	2	2	4	4	5	12	4	4	1	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...
Toikaw	5	1	...	2	4	4	5	7	17	28	60	32	165	1	...	...	...	...	...	...	...	1	...	1	...	3
Theng Tung	70	51	45	30	27	57	51	52	28	14	28	27	480	1	2	2	1	...	4	3	3	2	3	1	1	23
Fort Stedman	3	4	3	6	13	37	43	48	19	28	21	37	262	...	...	...	...	...	...	...	...	3	...	...	...	3
Thamakan	...	...	...	...	...	...	1	2	1	1	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila	...	7	11	6	3	5	1	7	4	21	15	5	85	...	1	1	1	...	...	...	...	...	1	3	2	9
Fort Dufferin	28	36	15	9	7	29	21	25	13	27	71	32	313	...	...	...	...	...	...	...	...	...	...	2	1	3
Thabeitkyin	...	...	...	...	...	2	2	3	1	1	10	7	26	...	...	...	...	...	...	...	...	...	...	...	...	...
Shamo	8	6	3	8	9	23	45	43	59	43	38	10	295	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Myingyan	3	6	17	12	6	7	6	4	2	5	6	1	75	...	...	4	2	...	...	...	1	...	...	...	...	7
Group II.—Burma Inland	126	114	96	75	73	168	180	203	148	172	251	151	1,757	2	3	7	4	...	4	3	4	6	4	7	4	48
Manipur	25	17	12	14	28	6	42	93	21	10	24	15	307	2	2	3	...	2	3	4	9	3	1	...	1	30
Sadiya	1	...	1	2	4	6	1	6	4	...	35	11	71	...	...	...	...	...	1	1	1	...	...	...	...	3
Dibrugarh	3	1	1	1	5	22	24	37	39	58	96	24	311	...	...	...	...	...	...	1	1	...	2	...	...	5
Silchar	7	4	14	14	7	22	30	30	16	6	6	11	167	...	...	...	...	...	...	1	...	...	...	...	...	1
Group III.—Assam	36	22	28	31	44	56	97	166	80	74	161	61	856	2	2	3	...	2	4	8	11	3	3	...	1	39
Fort William	13	10	9	13	6	9	12	27	23	35	90	73	320	...	...	1	...	...	...	...	...	...	...	...	...	1
Allipore	33	21	19	14	3	6	3	29	28	44	84	63	347	1	5	1	...	...	2	...	2	...	...	...	...	11
Ballygunge	4	4	1	...	...	...	...	...	...	...	...	4	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Dum Dum	1	...	...	...	...	...	...	...	3	3	8	1	16	...	...	...	...	...	...	...	...	1	...	1	...	2
Barrackpore	10	4	7	3	...	6	9	30	33	78	88	52	320	...	...	...	...	...	...	...	...	...	...	...	1	...
Buxa	4	2	2	13	27	25	24	16	13	11	35	12	184	...	...	...	...	...	...	...	...	...	...	...	...	1
Cuttack	2	14	6	3	1	...	2	2	2	1	13	3	49	...	...	...	...	...	...	...	..	...	...	...	...	...
Group IV.—Bengal and Orissa	67	55	44	46	37	46	50	104	102	172	318	208	1,249	1	5	2	...	...	2	...	2	1	...	1	1	15
A																										
Doranda	8	3	...	5	3	1	7	20	45	26	21	6	145	...	1	...	...	...	...	...	...	...	...	...	...	1
B																										
Dinapore	4	4	2	4	1	4	3	3	10	6	4	3	48	...	2	8	2	3	6	...	1	2	2	...	...	26
Benares	9	2	4	1	4	3	3	4	3	5	7	7	52	...	...	1	2	...	...	...	5	3	8	5	...	26
Allahabad	3	...	5	10	9	3	8	13	36	112	119	48	366	...	...	1	...	...	...	...	...	...	...	...	...	1
Fyzabad	6	7	9	8	5	5	4	4	12	20	21	11	112	...	...	...	...	2	...	..	1	1	1	...	...	5
Lucknow	1	2	6	4	6	5	12	14	66	58	40	13	227	...	...	1	...	...	...	1	...	1	1	...	1	5
Cawnpore	3	5	5	6	5	12	5	13	52	90	78	47	321	3	4	3	4	7	11	1	4	1	1	...	...	39
Fatehgarh	2	...	1	...	...	...	...	1	4	5	9	1	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Group V.—Gangetic Plain and Chutia Nagpur	36	23	32	38	33	33	42	72	228	322	299	136	1,294	3	7	14	8	12	17	2	11	10	13	5	1	103
A																										
Bareilly	8	2	14	8	5	6	9	20	28	28	16	9	153	...	2	2	1	3	...	1	...	...	...	...	...	9
Roorkee	2	...	3	...	2	2	...	1	3	4	5	...	22	1	1	1	...	...	...	...	...	...	...	1	...	4
Dehra Dun	20	11	22	18	9	12	21	33	24	20	26	7	223	3	2	2	2	4	6	8	5	...	...	...	...	32
Meerut	37	21	16	25	19	21	10	85	137	249	272	195	1,087	1	1	...	...	...	...	...	...	...	...	...	1	3
Delhi	8	1	8	14	21	8	2	31	138	106	61	19	417	3	...	3	1	3	3	...	3	15	3	6	3	43
Umballa	2	7	8	8	14	11	7	17	36	66	24	10	210	3	...	...	2	3	2	4	2	...	1	1	1	19
B																										
Ludhiana	1	2	...	...	...	2	3	3	4	3	4	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Jullundur	3	4	9	14	9	8	16	3	6	2	15	3	92	...	1	...	2	...	...	...	...	...	...	...	...	3
Ferozepore	4	3	4	6	6	6	10	42	113	146	118	21	479	1	...	1	2	1	1	...	2	1	2	5	1	17
Meean Meer	6	2	5	8	9	12	9	21	83	162	196	76	589	1	...	...	2	9	5	6	4	5	21	48	8	109
Amritsar	1	...	...	...	1	...	...	...	7	5	10	1	25	1	...	...	...	...	...	...	...	...	...	...	...	1
Kangra	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
Sialkot	17	8	3	3	24	33	17	7	5	16	6	2	141	3	2	1	3	...	5	5	2	...	2	...	...	23
Jhelum	7	4	1	2	4	17	7	21	47	45	48	14	217	2	...	...	...	2	1	2	2	3	1	2	...	15
Rawalpindi	8	6	17	8	15	41	66	80	111	90	109	89	640	1	...	1	2	5	1	3	1	1	2	2	6	27
Attock	2	5	...	1	2	1	2	2	1	5	...	4	25	...	...	...	...	...	1	...	...	...	...	...	...	1
Group VI.—Upper Sub-Himalayan	126	76	110	116	140	180	179	366	743	947	910	450	4,343	21	9	11	17	30	25	31	21	25	32	65	20	307

* Stations where neither Intermittent nor Remittent Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

TABLE XXXV—*continued.*

INTERMITTENT FEVER by months, stations, groups, and commands.

STATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A.													
Mardan	16	14	15	8	6	30	20	16	13	29	73	40	280
Nowshera	2	1	2	3	11	16	13	9	42	83	131	63	376
Shabkadar	...	...	...	...	...	...	...	22	51	98	...	...	171
Peshawar	9	10	12	5	14	14	6	55	73	486	543	109	1,336
Hari Singh-ka-Burj	...	...	...	...	...	...	...	4	106	4	15	28	157
Fort Jamrud	...	...	...	1	...	...	2	29	39	8	5	5	89
Bara	...	...	...	...	...	...	...	...	12	5	...	...	17
Matanni	...	...	...	...	...	...	...	...	...	...	2	...	2
Kohat	52	34	18	13	10	36	47	118	25	10	30	60	453
Bahadur Khel	...	1	1	...	1	1	...	...	1	1	3	...	9
Thal	...	1	2	...	1	2	10	5	2	...	...	...	23
Edwardesabad	39	31	25	27	16	28	27	43	122	567	640	398	1,963
Jani Khel	...	...	1	...	...	...	5	3	3	5	3	6	26
Dera Ismail Khan	30	26	13	21	33	40	30	62	408	537	484	103	1,787
Tank, Jatta, and Draband.	3	1	...	...	4	3	3	5	16	13	28	5	81
Mangrota	...	...	...	...	...	1	...	...	...	...	...	...	1
Dera Ghazi Khan	4	4	9	5	8	14	4	12	80	46	80	31	297
Mooltan	3	2	6	4	4	1	6	10	173	253	313	58	833
Bikanir	...	...	1	...	...	...	...	1	1	...	...	...	3
B.													
Sadda	...	2	15	9	9	17	6	...	...	...	...	...	58
Idak	1	...	3	1	...	1	...	...	...	...	...	...	6
Saidgi	4	1	6	2	2	1	...	...	...	...	...	...	16
Jandola	2	4	1	2	10	26	22	80	50	53	21	14	285
Khajuri Kach	1	2	...	3	7	34	23	32	25	3	10	6	146
Sibi	16	7	3	1	12	4	6	1	4	4	8	1	67
C.													
Jacobabad	19	19	3	5	5	6	5	6	24	105	195	106	498
Hyderabad	2	5	6	1	1	1	1	4	3	16	39	26	105
Kurrachee	33	20	10	18	6	13	5	11	16	46	101	43	322
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	236	185	152	129	160	289	241	528	1,289	2,372	2,724	1,102	9,407
A.													
Bhuj	...	...	...	1	1	6	...	...	...	17	15	8	48
Rajkot	12	6	4	2	9	4	27	27	13	56	79	36	275
Deesa	16	16	27	25	27	10	6	21	12	20	32	12	224
Sadra	1	...	...	...	4	1	...	...	...	...	2	...	8
Ahmedabad	4	5	11	5	6	2	8	11	22	28	34	13	149
Baroda	6	2	10	6	2	4	8	11	18	59	67	7	200
Surat	...	...	1	1	...	...	...	...	...	...	...	...	2
B.													
Alirajpore	...	...	...	...	...	...	...	...	...	2	...	...	2
Sirdarpore	6	3	4	2	3	1	...	4	8	16	17	4	68
Jhabwa	...	...	1	...	...	...	...	...	...	2	2	1	6
Kherwara	2	1	5	12	14	2	1	2	10	8	12	1	70
Kotra	4	...	1	...	5	...	2	...	2	7	5	1	27
Erinpura	4	2	2	...	...	1	2	3	8	11	22	6	61
Neemuch	7	7	8	3	1	6	7	18	27	75	54	13	226
Deoli	8	3	2	16	1	...	1	15	18	45	46	13	168
Beawar	...	1	...	...	...	1	...	...	1	...	...	...	3
Nasirabad	1	...	1	...	2	1	3	12	14	7	4	3	48
Ajmere	1	3	2	...	...	1	2	1	9	11	7	2	39
Sambhar	...	...	...	...	...	...	...	...	...	...	3	...	3
Jeypore	...	...	...	...	1	1	1	1	3	5	...	1	13
Agra	19	13	5	7	9	6	9	18	83	51	38	11	269
Gwalior	...	...	5	...	...	...	2	6	8	1	1	...	23
Jhansi	21	4	11	12	14	13	10	71	113	56	16	11	352
Nowgong	10	7	6	8	21	10	6	60	142	159	90	27	546
Jhalawar	...	...	...	2	8	...	2	34	79	22	28	8	183
Goona	4	6	3	5	4	8	7	24	22	44	21	...	148
Agar	2	...	2	1	4	1	2	4	7	3	5	...	31
Sehore	29	14	31	46	29	11	22	30	36	80	95	49	472
Indore	2	1	2	2	1	2	5	1	4	8	5	7	40
Mhow	23	22	31	6	16	48	2	7	10	11	8	4	188
GROUP VIII.—SOUTH EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	182	116	175	162	182	140	135	381	669	804	708	238	3,892
A.													
Asirgarh	...	2	...	...	...	...	...	7	6	6	4	...	25
Saugor	25	29	32	30	32	10	21	53	107	127	101	56	623
Sutna	...	...	...	...	1	...	...	5	8	8	6	2	30
Jubbulpore	20	7	14	21	20	12	20	18	13	33	27	7	212
Sambalpur	6	2	1	2	...	1	1	9	6	6	4	...	38
Raipur	1	...	4	1	...	...	1	3	14	35	23	9	91
Kamptee	29	20	37	85	59	22	18	93	64	88	65	40	620
Sitabaldi	...	3	4	6	3	8	5	11	13	14	5	5	77

TABLE XXXVI—*continued*

REMITTENT FEVER by months, stations, groups, and commands.

ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.													
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
...	2	1	...	3	1	...	...	...	...	...	...	
...	...	...	...	1	...	...	1	1	...	1	..	
...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	2	4	5	7	3	5	8	12	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	2	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
4	2	8	2	...	4	9	7	...	...	5	5	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	1	1	...	...	...	
2	2	3	1	2	...	1	4	2	...	...	1	
...	...	..	...	...	...	...	...	...	...	...	...	...
1	...	1	1	1	3	...	7	4	1	1	2	
...	...	...	...	1	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	...	1	...	...	5	4	3	
...	...	1	2	2	...	1	2	1	2	2	2	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	3	1	1	1	...	...	
1	...	1	...	...	...	...	...	...	..	...	...	
1	1	2	...	2	1	12	...	1	...	...	...	
10	7	17	8	16	16	25	26	19	18	25	15	202
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	1	...	1	...	1	
3	1	3	12	5	1	...	1	4	6	2	1	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	3	2	...	...	...	...	...	
2	3	1	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	2	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	4	2	1	4	...	...	3	1	...	...	17
8	6	13	15	13	13	4	12	8	7	7	6	112
...	...	...	...	...	...	...	1	...	...	...	...	
...	...	...	...	...	...	...	1	...	...	1	...	
...	...	...	...	...	...	...	1	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	1	...	
...	...	...	...	...	...	...	2	5	8	9	3	
...	...	...	...	...	...	1	1	...	...	...	...	

Stations.	Admissions from Intermittent Fever in each month.													Admissions from Remittent Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
B.																									
Ellichpur	43	30	47	12	9	8	11	46	58	72	31	20	387	...	...	...	...	...	...	...	...	1	1	...	2
Hingoli	13	6	6	7	8	13	26	29	31	56	29	20	244	...	1	...	...	...	...	2	1	...	...	1	8
Jalna	15	15	5	5	5	3	2	5	1	14	15	6	91	1	2	2	...	...	...	...	1	2	1	...	11
Aurangabad	28	15	16	9	7	12	14	30	11	32	14	24	212	...	1	1	1	...	...	..	...	..	...	...	3
Malegaon	1	1	5	...	...	...	...	1	2	4	3	3	20	...	...	...	...	...	...	...	...	...	...	...	1
Ahmednagar	...	...	...	...	1	1	...	4	4	2	8	...	20	...	...	...	...	...	...	...	...	1	...	...	1
Mominabad	20	17	12	8	7	9	13	14	20	43	52	18	233	2	1	...	...	...	...	1	2	2	2	...	10
Bolarum	2	4	13	39	8	3	3	12	44	25	47	26	226	6	1	11	...	6	10	3	...	...	6	4	1	48
Secunderabad	94	111	212	145	102	64	124	179	103	85	101	40	1,360	...	2	1	2	2	1	1	19	11	...	2	...	41
Raichur	1	2	1	2	...	3	2	6	19	22	5	1	64	...	...	...	1	...	2	...	2	...	...	...	1	4
Belgam	3	6	9	6	8	8	7	8	4	8	2	8	77	1	...	1	...	3	6	1	3	...	1	5	3	24
Satara	13	16	8	5	9	12	11	19	9	5	2	1	110	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	25	30	17	25	68	99	59	57	25	35	12	3	455	5	4	4	5	4	2	6	7	7	...	1	2	47
Kirkee	24	36	21	11	15	28	15	13	5	11	36	32	247	...	2	3	...	...	...	...	...	...	...	...	...	5
Sirur	4	...	3	2	...	2	4	1	...	...	5	5	26	1	1	1	1	...	2	...	...	...	2	..	...	8
Nasik	2	2	3	2	3	2	2	2	2	2	...	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Group IX.—Deccan	369	354	470	423	365	320	359	625	569	733	597	326	5,510	16	15	24	10	15	25	14	39	33	22	29	12	254
Thana	...	1	1	...	...	...	...	...	3	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Bombay	13	6	11	10	9	14	19	57	37	27	25	21	249	6	4	5	8	14	30	7	25	15	4	13	2	133
Canaanore	4	2	5	2	4	1	4	5	3	3	5	8	46	...	1	...	...	...	...	...	...	...	...	...	...	1
Trichoor	...	...	1	...	1	...	...	5	...	...	2	...	9	1	...	...	...	...	...	...	2	1	...	...	1	5
Quilon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Trivandrum	...	...	1	...	...	...	...	...	...	...	4	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Group X.—Western Coast	17	9	19	12	14	15	23	67	43	31	36	30	316	7	5	5	9	14	30	7	27	16	4	13	3	140
A																									
Bellary	23	14	13	2	4	7	5	9	11	17	32	27	164	...	...	...	...	1	...	...	...	...	...	...	...	1
Bangalore	17	27	40	38	81	43	36	30	18	19	56	40	445	2	2	3	2	8	...	1	6	1	2	1	1	29
B																									
Trichinopoly	18	15	23	29	16	16	11	11	7	5	16	9	176	...	2	...	...	...	1	...	...	...	...	...	...	3
St. Thomas' Mount	1	9	4	1	...	3	6	9	7	6	16	3	65	1	...	2	1	1	...	...	...	...	...	...	...	5
Madras	...	1	2	2	1	...	1	...	2	1	2	2	14	...	1	...	...	...	...	...	...	...	...	...	...	1
C																									
Vizianagram	4	2	5	1	3	7	3	12	4	1	4	...	46	...	...	...	...	...	...	...	..	...	...	...	...	...
Berhampur	4	30	6	1	...	3	...	10	2	6	4	1	67	1	...	...	...	...	...	...	1	...	...	...	...	2
Group XI.—Southern India	67	98	93	74	105	79	62	81	51	55	130	82	977	4	5	5	3	10	1	1	7	1	2	1	1	41
Maymyo	...	...	6	5	22	62	52	20	11	10	7	12	207	...	...	...	...	...	...	...	...	...	...	...	...	...
Bampon	3	...	2	3	1	2	4	3	...	9	16	7	50	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungyi	...	...	...	1	...	...	...	...	2	1	1	1	6	...	...	...	...	...	...	...	...	...	2	...	...	2
Mindat-Sakan	6	2	2	...	1	7	13	15	10	8	7	4	75	...	...	...	...	...	...	...	...	...	...	...	...	...
Haka	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	13	1	...	...	15
Kohima	5	6	14	15	14	48	83	166	173	87	111	31	753	...	...	...	...	...	...	...	...	...	...	...	...	22
Shillong	26	20	37	25	26	20	11	7	11	10	21	31	245	3	4	11	2	1	1	...	...	...	...	...	...	...
Gantak	1	...	1	...	...	...	1	1	3	5	1	1	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjeeling	...	1	3	...	1	...	...	4	2	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora	3	6	7	4	1	5	7	3	5	1	16	6	64	1	...	3	1	2	2	...	1	...	...	...	...	10
Ranikhet	...	...	...	...	...	1	...	...	...	1	1	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Naini Tal	2	...	1	4	1	4	2	2	2	2	2	1	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Lansdowne	49	46	50	43	41	63	97	49	17	7	27	17	506	...	...	1	3	2	4	1	...	...	2	5	7	25
Simla	...	...	1	3	4	4	6	2	2	1	3	...	26	...	...	...	1	...	2	...	...	1	...	1	...	5
Jutogh	...	...	4	3	4	8	2	3	...	...	7	...	31	1	...	...	...	...	...	...	...	...	...	...	...	1
Dharmsala	32	36	33	28	28	30	27	27	20	22	30	44	357	6	8	10	5	6	13	18	8	9	11	15	23	132
Bakloh	16	11	22	18	20	15	5	19	8	1	21	17	173	5	1	1	3	2	14	3	22	...	...	...	...	51
Murree	...	...	...	...	...	...	...	6	4	1	1	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	4	2	...	...	...	...	...	...	6
Baragully	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh	...	...	...	...	...	...	...	4	4	...	...	...	8	...	...	...	...	1	1	...	...	...	...	...	...	2
Gilgit	4	6	9	3	6	7	6	17	20	3	3	...	84	1	1	...	...	...	1	...	1	...	...	...	...	4
Chitral	7	19	25	19	20	148	71	54	52	34	29	15	493	2	...	4	1	...	22	1	...	...	...	...	...	30
Malakand	18	13	11	8	7	18	24	...	...	...	...	...	99	1	1	...	1	5	7	4	...	...	...	...	...	19
Abbottabad	29	53	15	10	22	54	23	45	36	53	45	38	423	7	1	1	1	2	4	6	5	3	6	...	1	37
Cherat	...	...	...	...	...	1	...	1	2	1	11	2	18	...	...	...	...	...	...	...	...	...	1	...	...	1
Dar	...	...	...	...	2	1	1	2	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Lockhart	...	...	...	...	...	1	1	3	2	...	...	...	7	...	...	1	...	...	...	...	1	...	...	...	...	2
Fort Cavagnari	1	...	1	...	...	1	...	1	...	...	...	...	4	1	...	...	...	...	1	3	1	...	...	...	...	6
Parachinar	13	2	3	9	10	8	4	36	24	31	30	11	181	2	1	...	1	...	...	...	1	...	...	...	...	5
Sultankot	2	...	...	...	...	2	1	12	12	...	...	...	29	1	...	1	...	...	...	...	...	...	...	...	...	2
Miran Shah	5	1	1	8	8	18	1	...	...	...	...	...	42	...	1	...	...	2	6	1	...	...	...	...	...	10
Boya	1	...	2	3	6	7	...	...	...	...	...	...	19	...	...	...	...	...	1	...	...	...	...	...	...	1
Datta Khel	15	22	22	14	15	26	29	...	...	...	...	...	143	...	...	2	...	...	2	4	...	...	...	...	...	8
Sarwekai	4	1	2	3	9	12	11	13	19	21	18	6	119	...	...	...	...	...	...	...	...	1	...	...	...	1
Wana	9	11	16	4	11	30	58	196	191	156	103	53	838	...	4	4	1	2	25	16	26	14	7	4	1	104
Mir Ali Khel	4	3	1	...	...	8	6	21	10	3	13	5	74	...	1	...	...	...	...	...	...	...	...	...	...	1
Fort Sandeman	20	17	13	10	6	15	64	185	171	132	68	20	721	...	...	...	...	2	4	7	...	...	1	...	...	14
Hindubagh	...	...	...	...	...	...	2	4	6	...	2	2	16	...	...	...	...	...	...	...	2	2	...	...	...	4

TABLE XXXV—*concluded.*

INTERMITTENT FEVER by months, stations, groups, and commands.

TABLE XXXVI—*concluded*

REMITTENT FEVER by months, stations, groups, and commands.

Stations.	Admissions from Intermittent Fever in each month.													Admissions from Remittent Fever in each month.										
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Khan Mohamed Kot	1	2	2	3	5	10	9	25	28	36	16	11	148	...	...	...	...	1	...	...	...	...	1	1	1	4
Murgha	...	2	...	...	...	2	5	15	12	11	3	1	51	...	...	...	...	...	...	...	...	...	...	...	...	...
Marratangi	2	4	2	2	...	2	4	2	4	...	2	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Loralai	14	24	21	15	25	36	61	165	236	185	84	21	887	3	...	1	...	...	...	...	...	...	...	...	...	4
Gumbaz	5	7	6	...	1	3	2	9	8	17	17	6	81	...	...	...	...	1	...	...	...	...	...	...	...	1
Quetta	10	26	8	75	54	40	78	119	148	49	96	72	775	...	...	...	2	...	...	...	3	...	...	2	1	
Peshin	12	5	1	4	9	9	11	46	60	57	48	22	284	2	...	...	...	...	1	1	...	...	1	...	...	
Shelabagh	1	6	7	1	...	...	1	2	3	7	8	3	39	...	...	...	...	...	...	...	...	...	1	...	2	
Spinwana	2	1	2	1	1	2	...	...	5	3	3	1	21	...	...	...	...	...	1	1	...	...	...	...	...	2
Chaman	4	7	5	10	10	9	9	27	26	6	10	3	126	4	5	5	...	1	...	1	5	7	1	3	...	32
Mount Abu	1	...	...	1	...	2	1	5	...	8	14	2	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund	...	...	...	...	...	...	4	21	12	6	21	5	69	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XII.—Hill Stations	328	360	358	355	396	741	797	1,357	1,361	985	916	473	8,427	40	28	45	23	33	113	68	76	51	35	31	36	579
Marching in Bengal	2	13	5	6	...	...	...	2	3	5	12	20	68	...	...	...	2	...	..	...	...	...	...	...	1	3
,, Punjab	20	5	5	3	33	13	5	43	55	25	13	21	241	2	...	...	...	...	...	3	2	1	...	..	2	10
,, Madras	37	29	40	71	22	8	2	1	1	1	1	2	215	1	2	...	...	...	...	...	...	...	...	...	...	3
,, Bombay	23	11	12	7	...	...	8	3	...	30	44	7	145	...	1	1	1	...	..	...	...	...	...	...	2	5
Hyderabad Contingent Marching	...	...	...	...	...	...	...	...	...	...	19	7	26	...	...	...	...	...	...	...	...	...	...	...	...	...
Tochi Field Force	...	...	...	...	...	...	40	283	678	817	488	39	2,345	...	...	...	...	...	...	2	16	23	11	6	4	62
Malakand Field Force	...	...	...	...	...	...	10	145	276	199	96	37	703	...	...	...	...	...	...	...	6	5	4	6	6	27
Kohat and Kurram Field Force	...	...	...	...	...	...	...	20	395	137	...	...	552	...	...	...	...	...	...	...	3	19	5	...	...	27
Mohmund Field Force	...	...	...	...	...	...	...	7	243	62	...	...	312	...	...	...	...	...	...	...	...	1	1	...	...	2
Tirah Field Force	...	...	...	...	...	...	...	...	...	670	807	406	1,883	...	...	...	...	...	...	...	...	...	12	31	21	64
Aden	22	13	36	22	25	17	4	4	10	10	25	9	197	1	...	2	4	4	2	2	...	1	...	1	...	17
Persian Gulf	8	4	...	...	1	1	...	1	1	2	1	3	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Mombasa Field Force	...	...	...	...	...	...	...	...	...	...	...	19	19	...	...	...	...	...	...	...	...	...	...	...	1	1
INDIA	1,722	1,495	1,702	1,585	1,650	2,130	2,256	4,471	6,954	8,633	8,578	3,850	45,026	119	95	149	104	149	252	170	263	223	174	228	137	2,063
Bengal	432	307	394	407	388	396	531	1,035	1,495	1,655	1,749	907	9,696	19	24	43	21	32	43	22	42	42	22	23	18	351
Punjab	393	355	348	291	430	800	636	1,185	2,105	3,090	3,225	1,353	14,211	50	27	41	35	58	131	103	105	58	72	103	56	841
Madras	361	370	494	397	359	423	474	553	354	366	570	344	5,065	10	13	14	10	15	12	6	35	19	10	15	9	168
Bombay	414	374	366	408	429	460	494	1,101	1,224	1,373	1,431	623	8,697	31	25	37	36	38	52	30	52	50	27	37	19	434
Hyderabad Contingent	122	89	100	82	44	51	71	142	184	264	212	122	1,483	9	6	14	2	6	14	5	4	6	10	7	3	86

TABLE XXXVII.

PNEUMONIA by months, stations, groups, and commands.

TABLE XXXVIII.

DYSENTERY by months, stations, groups, and commands.

Stations.*	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	...	..	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	2	2	...	1	...	1	9
Moulmein	...	...	...	...	...	...	...	1	...	1	...	1	3	1	1	2	1	...	3	2	2	5	2	5	...	24
Rangoon	...	1	2	..	1	...	...	2	...	...	...	...	6	6	4	...	7	6	39	27	21	18	10	17	14	169
Group I.—Burma Coast and Bay Islands	...	1	2	...	1	...	...	3	...	1	...	1	9	7	7	2	8	6	43	31	25	23	13	22	15	202
Shayetmyo	1	1	...	...	...	...	...	...	...	...	...	...	2	5	3	...	1	4	5	1	...	3	4	3	...	29
Toikaw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	1	...	...	...	5
Keng Tung	1	1	1	1	...	1	1	...	...	...	1	...	7	2	...	1	...	2	...	1	...	1	...	...	...	7
Port Stedman	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	2	...	2	...	1	9
Meiktila	...	...	1	...	...	...	...	...	...	...	...	...	1	...	3	3	3	...	...	...	2	1	...	1	2	15
Port Dufferin	2	1	...	1	1	...	1	...	1	1	2	...	10	2	3	1	3	1	3	5	...	1	1	3	3	26
Thabeitkyin	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	1	...	4
Thamo	...	2	...	...	1	...	...	1	...	...	...	...	4	1	4	4	1	2	...	2	3	2	1	...	...	20
Myingyan	...	...	1	...	...	...	...	1	...	...	...	...	2	...	2	6	...	2	...	1	1	1	1	1	...	15
Salewa	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Group II.—Burma Inland	4	5	3	2	2	1	2	1	2	1	3	...	26	13	17	15	8	12	11	13	8	10	9	9	6	131
Manipur	1	2	2	3	3	...	...	1	2	...	...	2	16	8	5	4	13	8	4	3	7	9	6	8	5	80
Cachar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	2
Sibsagar	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	...	...	...	2	...	4	6	7	4	1	26
Silchar	...	...	...	...	...	...	2	...	...	...	...	...	2	3	7	3	5	1	1	6	19	26	3	6	5	85
Group III.—Assam	1	2	2	3	3	...	2	1	3	...	...	2	19	13	12	7	20	9	7	9	30	41	16	18	11	193
Fort William	...	...	...	1	...	1	...	2	...	1	...	1	6	4	2	8	1	4	1	14	16	1	4	5	3	63
Dilipore	1	...	...	...	...	...	...	...	...	...	...	2	3	7	8	8	5	4	5	1	5	3	2	8	4	60
Ballygunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	1	4
Dum-Dum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Barrackpore	...	...	1	1	...	1	...	...	1	...	...	...	4	...	2	1	1	...	2	4	7	3	1	2	3	26
Dum-Dum	...	...	1	...	...	...	...	1	...	...	...	...	2	4	2	4	1	1	4	2	1	...	1	1	...	21
Cuttack	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	4	1	1	...	1	9
Group IV.—Bengal and Orissa	2	...	2	2	...	2	...	3	1	1	...	3	16	15	16	24	8	9	12	21	33	8	11	16	12	185
A																										
Moranda	2	...	...	...	...	...	...	1	...	...	...	...	3	4	2	1	...	...	1	4	...	...	...	...	...	12
B																										
Singapore	...	...	...	...	1	...	...	...	...	...	1	1	3	...	...	...	1	2	...	1	3	2	2	...	...	11
Benares	3	...	1	...	...	...	...	...	...	...	...	...	4	1	4	1	2	1	...	1	2	1	2	...	1	16
Allahabad	1	...	...	...	...	...	...	...	...	...	2	1	4	8	12	11	3	4	3	5	15	14	30	40	12	157
Fyzabad	...	2	3	1	4	...	1	1	...	1	2	...	15	4	4	4	2	4	1	2	5	1	5	3	...	35
Lucknow	1	5	1	1	...	...	1	...	...	...	4	2	15	5	2	...	1	...	2	...	6	1	3	13	4	37
Cawnpore	2	7	1	2	2	1	...	...	...	...	5	5	25	...	3	2	3	3	...	1	11	5	4	6	7	43
Fatehgarh	1	...	1	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	1	...	...	...	1	...	...	4
Group V.—Gangetic Plain and Chutia Nagpur	10	14	7	4	7	1	2	2	...	1	14	9	71	24	27	19	12	14	8	14	42	24	47	62	24	317
A																										
Bareilly	...	...	...	1	...	...	1	...	1	...	2	1	6	...	1	2	2	1	2	1	2	4	3	5	3	26
Roorkee	...	...	1	...	...	1	...	...	...	...	...	...	2	1	...	...	1	1	...	...	...	...	...	...	...	3
Dehra Dun	8	2	5	1	...	1	...	...	...	...	...	...	17	...	1	1	4	...	2	5	4	1	3	...	...	21
Meerut	1	2	2	...	...	...	1	...	2	1	3	19	31	1	3	...	12	4	3	2	3	6	7	10	15	66
Delhi	2	...	...	...	1	...	...	...	...	...	...	1	4	2	...	...	3	5	1	...	6	1	3	4	1	26
Umballa	...	...	1	...	...	1	...	...	...	...	...	...	2	1	...	...	...	1	...	...	...	2	3	3	1	11
B																										
Ludhiana	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Jullundur	...	1	...	...	...	...	...	...	...	...	1	...	2	2	1	1	5	...	2	...	3	1	2	3	2	22
Ferozepore	7	...	...	...	...	...	...	...	...	1	6	2	16	...	...	2	9	5	2	1	3	2	4	14	1	43
Meean Meer	3	6	1	...	...	...	...	...	...	...	6	5	21	...	...	...	2	1	4	1	2	6	10	11	9	46
Amritsar	...	...	...	1	...	...	...	...	...	...	2	...	3	...	...	...	...	1	...	...	2	3	3	3	...	12
Sialkot	4	2	1	...	...	...	...	...	...	...	1	3	11	1	1	...	2	7	1	2	...	...	...	2	...	16
Jhelum	5	1	1	...	...	...	1	...	...	...	...	1	9	5	...	...	3	...	...	...	3	2	2	1	1	17
Rawalpindi	5	1	...	6	2	2	1	2	1	2	7	10	39	5	1	2	8	5	9	7	4	7	9	14	16	87
Attock	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	2	...	...	1	...	...	...	...	...	3
Group VI.—Upper Sub-Himalayan	35	15	12	9	3	6	4	2	4	4	29	42	165	18	8	8	53	31	26	20	32	36	49	70	49	400

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table XXVIII.

TBLE XXXVII—*continued.*

PNEUMONIA by months, stations, Groups, and commands.

TABLE XXXVIII—*continued.*

DYSENTERY by months, stations, groups, and commands.

Stations.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A.																									
Mardan	4	1	...	...	1	...	1	2	...	...	3	2	14	4	2	1	2	3	1	1	3	5	2	8	7	3
Nowshera	2	1	2	...	...	1	...	...	...	...	5	2	13	...	...	...	...	1	3	...	7	19	11	21	15	7
Shabkadar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4	...	...	
Peshawar	7	8	2	...	...	1	...	4	1	5	22	36	86	...	1	1	2	1	1	1	17	12	65	59	24	18
Hari Singh-ka-Burj	...	...	...	...	...	...	...	...	...	...	4	1	5	...	...	...	...	...	...	...	2	1	...	25	14	4
Fort Jamrud	...	...	...	...	...	...	...	...	...	...	3	17	20	...	...	...	...	...	...	...	2	5	5	9	18	3
Bara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	
Matanni	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	
Kohat	11	8	2	2	1	1	...	3	...	2	8	12	50	9	6	2	4	3	...	2	14	4	9	36	17	10
Bahadur Khel	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	
Thal	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	3	...	...	...	
Edwardesabad	8	4	1	...	2	2	...	...	2	3	11	40	73	8	5	1	1	2	4	4	14	8	3	27	28	10
Dera Ismail Khan	6	10	5	3	...	1	3	...	...	1	8	9	46	4	1	3	7	5	4	7	10	30	64	36	18	18
Tank, Jatta, and Draband	1	...	...	...	...	...	...	...	...	...	1	2	4	...	...	...	...	...	...	...	...	6	3	2	...	1
Dera Ghazi Khan	1	...	2	1	...	...	...	...	...	...	2	3	9	2	1	1	5	6	...	1	3	10	18	19	3	6
Mooltan	10	8	...	...	...	...	...	2	...	...	5	7	32	3	...	3	1	1	2	1	6	13	12	22	14	7
Bikanir	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	
B.																										
Sadda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	1	...	...	...	...	...	
Idak	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	
Saidgi	...	...	...	...	...	...	1	...	...	...	...	...	1	2	...	1	...	...	1	...	...	...	...	...	...	
Jandola	1	1	...	...	...	...	...	...	1	...	1	2	6	1	1	...	2	4	9	9	36	16	5	6	7	9
Khajuri Kach	1	...	1	...	...	...	...	...	...	1	7	7	17	...	...	3	1	...	5	2	4	6	6	9	3	3
Sibi	...	3	...	...	...	...	...	...	...	...	1	...	4	2	2	...	1	...	1	...	...	...	1	5	...	1
C.																										
Jacobabad	6	5	2	1	...	...	...	...	...	...	2	1	17	2	...	1	...	...	1	...	...	3	11	11	3	3
Hyderabad	...	2	...	...	...	...	...	...	...	...	...	...	2	...	1	2	...	1	...	2	4	3	2	1	2	1
Kurrachee	2	3	1	...	1	...	1	...	...	...	...	1	9	1	1	4	3	1	1	1	2	2	1	5	3	2
Group VII.—N.-W. Frontier, Indus Valley, and North-Western Rajputana	62	54	18	7	5	6	6	11	4	12	83	142	410	39	22	26	31	29	34	32	128	149	222	303	176	1,19
A.																										
Bhuj	2	3	1	1	...	2	...	...	...	...	...	...	9	1	...	1	...	...	2	1	3	1	2	1	...	1
Rajkot	...	2	...	...	...	...	2	...	...	1	...	2	7	...	1	...	1	1	1	2	4	4	2	1	...	1
Deesa	4	...	1	...	1	...	1	...	1	...	1	...	9	2	3	3	1	...	...	1	4	1	1	3	1	2
Sadra	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	..	...	...	...	...	...	...	...	...	...	...
Ahmedabad	2	2	...	...	...	...	...	1	...	...	1	...	6	...	...	1	..	...	...	4	3	2	2	1	...	1
Baroda	1	...	...	...	...	...	...	...	...	...	1	...	1	3	1	1	1	1	...	8	4	2	...	1	1	2
Surat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	
B.																										
Barwani	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirdarpore	2	...	4	2	...	2	...	1	...	3	1	2	17	...	...	...	...	...	...	4	6	...	...	...	...	1
Jhabwa	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kherwara	...	...	1	2	...	1	...	...	...	...	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kotra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
Oodeypore	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Erinpura	...	1	2	1	1	...	...	...	...	...	3	3	11	...	...	...	...	...	1	...	1	...	...	1	...	
Neemuch	1	1	...	1	...	...	...	1	...	...	3	...	7	...	...	1	...	1	2	1	4	1	2	4	1	1
Deoli	1	...	1	...	...	...	...	...	...	...	1	2	5	...	...	...	...	1	...	...	5	1	...	1	...	
Beawar	...	1	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad	1	1	1	...	...	1	...	...	...	...	1	2	7	...	...	...	1	...	...	...	2	2	1	4	3	1
Ajmere	4	5	...	...	...	1	...	...	...	...	3	2	15	3	...	...	...	...	...	1	1	...	1	...	...	
Jeypore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	
Agra	3	4	1	3	1	...	...	...	...	2	...	2	16	3	1	4	2	3	1	...	14	16	11	15	3	7
Gwalior	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
Jhansi	...	...	...	1	...	...	...	...	...	...	...	...	1	5	4	1	10	5	5	4	8	2	4	9	...	5
Nowgong	1	3	3	1	...	...	...	...	...	...	...	...	8	3	2	2	4	2	3	4	12	7	2	5	...	4
Jhalawar	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	1	...	...	...	1	1	3	3	...	1
Goona	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	1	...	4	1	...	1	...	1
Agar	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	2	2	...	...	2	1
Sehore	...	...	...	1	...	3	...	1	...	...	...	2	7	2	...	2	4	5	4	8	10	1	1	...	3	4
Indore	...	...	...	...	...	...	...	...	...	...	1	2	3	...	1	2	1	1	2	14	21	...	...	3	1	4
Mhow	3	1	6	1	3	...	...	...	...	...	1	3	18	2	5	3	4	6	6	5	6	1	1	3	3	4
Group VIII.—South-Eastern Rajputana, Central India, and Gujarat	27	24	22	15	7	10	3	4	1	7	18	24	162	24	21	22	30	28	28	58	118	47	33	56	18	48
A.																										
Asirgarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	
Saugor	7	5	1	...	1	...	...	...	1	2	4	5	26	3	4	4	2	7	5	8	21	12	10	11	7	9
Sutna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	2	...	...	1	
Jubbulpore	...	...	2	1	...	...	...	1	...	...	1	2	7	...	1	2	5	3	10	12	15	5	8	3	3	6
Sambalpur	...	1	...	2	...	...	...	...	...	...	2	2	7	...	...	1	...	1	...	...	6	...	...	...	...	
Raipur	...	...	2	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	
Kamptee	...	...	1	...	...	...	1	...	...	1	...	...	3	...	1	...	...	1	...	1	2	3	1	...	...	
Sitabaldi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	

Stations.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
B.																									
Ellichpur	2	3	2	...	...	1	1	1	...	1	...	1	12	2	1	1	...	4	4	10	17	5	1	1	...	46
Hingoli	1	...	...	...	...	1	...	...	...	...	1	2	5	...	...	2	...	3	...	7	9	9	3	4	1	38
Jalna	...	...	...	2	...	...	...	...	...	...	...	2	4	...	...	...	2	1	1	2	6	...	1	...	...	13
Aurangabad	1	1	...	1	...	1	1	1	1	1	...	...	8	1	4	...	...	1	2	6	12	6	2	3	2	39
Malegaon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1	...	...	...	...	4
Ahmednagar	...	...	...	...	...	1	...	...	...	...	...	...	1	2	1	1	...	2	1	...	1	3	2	1	...	14
Nominabad	2	...	..	...	...	...	...	1	...	...	...	...	3	...	...	1	...	1	1	3	8	3	2	2	...	21
Solarum	1	...	3	...	1	...	1	...	...	...	1	...	7	2	1	...	2	2	4	14	41	14	5	5	3	93
Secunderabad	2	2	5	...	...	...	2	1	1	...	...	1	14	8	7	5	4	6	5	20	35	24	10	8	1	133
Raichur	1	...	1	...	...	...	...	3	...	...	...	...	5	1	2	...	1	1	4	12	18	9	1	1	1	51
Belgam	...	...	1	...	...	...	...	...	...	...	1	2	4	...	1	1	1	...	5	3	...	...	...	1	6	18
Satara	...	1	...	...	...	...	...	...	...	...	...	...	1	...	2	...	2	...	...	...	...	...	2	...	...	6
Poona	3	6	5	3	1	...	...	...	1	...	1	1	21	6	2	2	5	3	6	17	25	8	4	11	5	94
Girkee	3	1	...	...	...	...	...	...	...	...	...	1	5	1	9	9	9	8	7	25	17	7	1	5	2	100
Sirur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	1	5	...	3	2	...	...	15
Nasik	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Group IX.—Deccan	23	20	24	9	4	4	6	8	4	5	11	19	137	26	37	31	38	46	57	147	239	113	56	56	32	878
Thana	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	...	...	4	4	1	2	2	1	19
Bombay	...	...	...	1	1	1	...	1	...	1	...	1	6	11	7	8	8	9	12	19	19	13	4	16	13	139
Cannanore	...	...	...	...	...	...	...	1	...	...	...	...	1	1	2	...	...	...	1	1	4	3	4	3	...	19
Trichoor	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	2
Quilon	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	2	2	1	...	2	4	14
Trivandrum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	3
Group X.—Western Coast	...	...	...	1	1	1	...	2	...	1	...	1	7	14	10	9	10	11	15	27	29	19	10	24	18	196
A																										
Bellary	...	...	1	...	...	1	...	...	...	...	...	...	2	1	2	3	...	1	3	5	2	3	5	7	1	33
Bangalore	4	4	1	1	2	4	3	2	3	...	2	3	29	7	11	5	8	19	23	18	16	7	10	3	6	133
B																										
Trichinopoly	...	...	1	...	...	...	1	...	...	..	...	...	2	4	4	2	3	3	2	...	3	2	2	2	...	27
St. Thomas' Mount	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	2	1	2	...	...	3	...	2	1	...	19
Madras	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	3	...	2	1	3	...	...	1	...	1	12
C																										
Vizianagram	...	1	...	...	...	...	...	...	..	...	...	...	1	...	...	...	2	1	...	...	1	2	1	...	...	7
Berhampur	4	2	1	...	...	...	...	1	...	...	...	...	8	...	...	1	...	...	...	...	3	...	...	...	...	4
Group XI.—Southern India	8	7	4	1	2	5	4	3	3	...	3	4	44	14	24	16	14	28	29	26	28	14	21	13	8	235
Maymyo	...	...	1	...	1	1	2	...	4	1	3	3	16	...	1	2	1	1	2	1	2	1	...	2	...	13
Bampon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Toungyi	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	2
Mindat Sakan	1	...	...	2	...	...	...	...	...	...	...	...	3	...	...	...	...	1	4	2	3	...	...	...	1	11
Kohima	4	2	...	...	...	1	...	1	...	...	...	...	8	...	...	...	...	3	1	4	2	9	3	2	2	26
Shillong	...	1	2	2	1	2	...	...	...	1	3	1	13	1	2	1	...	4	5	10	16	1	3	...	3	46
Gantak	1	1	...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	3	1	...	...	...	...	4
Darjeeling	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	1	1	...	...	...	...	3
Almora	2	2	3	1	1	...	1	...	1	...	...	...	11	1	...	2	4	1	1	2	3	1	...	...	1	1	16
Naini Tal	...	...	...	1	2	1	...	...	1	1	...	...	6	...	1	...	...	1	3	...	1	...	...	...	...	6
Lansdowne	5	2	16	3	3	2	2	3	...	...	...	...	36	2	...	3	14	7	13	10	2	3	...	1	1	56
Jutogh	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	...	...	...	3	1	8
Dharmsala	7	1	2	5	...	...	1	...	1	...	...	1	18	...	2	2	2	1	3	9	4	...	3	2	2	30
Bakloh	3	...	...	...	...	..	...	...	...	...	...	...	4	...	1	...	...	2	1	1	...	2	...	...	2	9
Khyragully	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Kalabagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Gilgit	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	8	5	6	1	...	22
Chitral	...	...	4	...	3	4	...	...	...	2	2	4	19	5	6	4	4	8	10	8	18	10	5	7	3	88
Malakand	6	8	...	1	...	2	3	...	3	...	...	...	20	8	3	5	3	10	15	18	...	...	...	...	...	62
Abbottabad	7	4	...	1	1	1	...	1	3	1	1	2	22	5	8	7	...	3	9	7	5	1	5	9	5	64
Cherat	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	1	2	...	1	...	4
Dar	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	1	1	...	...	...	4
Fort Lockhart	...	...	1	...	...	...	...	...	...	...	...	...	1	...	2	1	...	1	...	1	...	...	...	...	...	5
Fort Cavagnari	...	..	...	1	...	...	...	...	...	...	...	...	1	2	...	1	3	1	2	1	...	...	...	...	...	9
Parachinar	4	1	...	...	...	...	...	...	...	...	...	...	5	...	1	...	...	...	...	...	1	3	...	1	3	3	12
Sultankot	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2
Miran Shah	8	1	...	...	...	...	...	...	...	...	...	...	9	1	1	...	6	5	2	1	...	...	...	...	...	16
Boya	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	1	1	...	...	...	...	...	5
Datta Khel	2	1	1	...	...	1	...	...	...	...	...	...	5	10	2	...	1	1	2	7	17	...	...	...	...	38
Sarwekai	1	1	...	...	...	...	...	...	...	1	...	3	6	3	...	...	...	1	2	3	4	17	18	22	19	8	97
Wana	3	9	3	...	...	...	...	1	...	2	...	5	23	...	...	...	1	...	4	9	23	11	9	8	4	69
Mir Ali Khel	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	1	3	4	...	...	12
Fort Sandeman	2	4	2	4	2	1	...	1	2	1	2	3	24	4	3	6	3	3	4	1	12	11	15	5	2	69
Hisdubagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2
Khan Mohamed Kot	1	...	1	...	...	...	...	...	1	3	...	...	6	...	...	1	...	...	1	1	...	...	1	5	...	9
Murgha	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	1	...	6
Marratangi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	3

TABLE XXXVII—*concluded.*

PNEUMONIA by months, stations, groups, and commands.

TABLE XXXVIII—*concluded*

DYSENTERY by months, stations, groups, and commands.

Stations.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Loralai	6	1	2	2	...	1	...	...	...	1	5	4	22	...	1	2	1	...	2	5	7	12	16	9	7	62
Gumbaz	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Quetta	...	...	2	...	...	...	1	...	2	3	4	4	16	3	3	...	4	2	7	2	3	8	10	16	10	68
Peshin	2	...	...	...	...	...	...	...	...	...	...	1	3	1	1	...	...	1	3	1	4	3	4	2	...	20
Shelabagh	2	...	...	...	...	...	...	...	...	...	...	2	4	...	...	1	...	...	...	...	2	...	...	1	2	6
Spinwana	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	1	1	...	...	5
Chaman	1	...	...	1	1	...	...	1	...	...	...	3	7	...	...	...	...	...	...	...	1	2	2	1	...	7
Ootacamund	...	...	...	...	...	...	...	1	...	2	3	2	8	...	...	...	...	...	...	1	4	3	1	2	2	13
Group XII.—Hill Stations	70	39	40	24	15	18	11	9	15	19	25	39	324	50	39	44	51	62	108	131	143	111	114	102	59	1,01
Marching in Bengal	...	...	...	...	...	...	...	1	...	...	...	...	1	1	1	...	...	...	...	...	4	...	2	4	5	17
,, Punjab	8	...	1	3	1	...	...	...	1	...	...	4	18	8	1	1	1	7	...	2	8	3	13	...	7	51
,, Madras	3	1	...	...	...	...	...	...	...	...	...	...	4	8	5	8	4	...	...	...	...	...	...	...	3	28
,, Bombay	...	4	1	1	...	1	...	...	...	...	1	1	9	3	5	9	1	...	...	...	...	...	1	21	1	41
Hyderabad Contingent marching	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	4	...	4
Tochi Field Force	...	...	...	...	...	...	2	5	3	8	19	26	63	...	...	...	...	...	...	...	29	420	221	188	155	16	1,029
Malakand Field Force	...	...	...	...	...	...	...	9	4	2	33	28	76	...	...	...	...	...	...	...	...	116	281	103	38	15	553
Kohat and Kurram Field Force	...	...	...	...	...	...	...	1	5	...	...	...	6	...	...	...	...	...	...	...	4	131	97	...	...	232
Mohmund Field Force	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	2	53	22	...	...	77
Tirah Field Force	...	...	...	...	...	...	...	...	...	13	45	48	106	...	...	...	...	...	...	...	...	...	286	633	178	1,097
Aden	...	...	...	...	...	...	2	...	1	...	...	...	3	4	8	3	1	2	12	5	...	9	11	5	4	64
Persian Gulf	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Mombasa Field Force	...	...	...	...	...	...	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	4	4
INDIA	253	186	138	81	51	55	44	65	53	75	285	396	1,682	281	260	244	290	294	390	565	1,410	1,292	1,324	1,611	961	8,623
Bengal Command	47	40	47	25	21	14	10	13	10	9	28	47	311	78	79	74	109	87	89	120	233	147	134	167	97	1,414
Punjab ,,	129	78	31	24	11	18	11	15	10	21	108	181	637	92	47	48	81	92	108	122	227	218	304	385	233	1,957
Madras ,,	18	16	16	5	6	8	10	10	10	5	13	13	130	52	64	49	40	56	102	104	111	80	58	63	46	825
Bombay ,,	51	48	38	24	12	12	8	6	8	15	36	45	303	53	62	69	55	46	75	136	186	116	117	150	65	1,130
Hyderabad Contingent	8	4	6	3	1	3	3	6	1	2	3	5	45	6	8	4	5	13	16	54	111	46	15	20	7	305

TABLE XXXIX.

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
1	Governor General's Body Guard, Dehra Dun (Local.)	119	103	3·0	1	1233·0	Admitted	4	...	...	...	67	...	...	...	...	...	...	8	3	...	...	...	4	...	127	...
						...	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	1st Bengal Lancers, Meerut. December, 1894, from Saugor.	620	490	14·2	35	683·7	Admitted	...	...	...	...	134	2	...	...	1	3	9	14	2	...	...	1	20	4	335	...
						4·84	Died	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	1
						1·61	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
3	2nd Bengal Lancers, Bareilly, February, 1893, from Allahabad.	623	513	13·7	9	536·1	Admitted	...	...	...	...	74	4	...	...	1	1	...	17	1	...	1	...	17	8	275	...
						6·42	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
						17·66	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	11	...
4	Head Quarters and Depôt, 3rd Bengal Cavalry, Fyzabad, February, 1892, from Cawnpore.	438	388	7·3	12	484·5	Admitted	...	...	...	1	39	3	...	1	2	4	11	13	...	...	...	...	21	6	188	...
						13·70	Died	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	5	1
						4·57	Invalided	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
5	4th Bengal Cavalry, Cawnpore, November, 1891, from Fyzabad.	624	520	8·8	8	396·2	Admitted	...	...	...	...	84	7	3	1	2	...	5	17	1	...	...	...	4	1	206	...
						1·60	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
						25·64	Invalided	...	...	...	...	5	...	...	1	1	...	...	...	...	...	...	...	1	1	16	...
6	5th Bengal Cavalry, Nowgong, February, 1893, from Lucknow.	622	516	27·2	18	1337·2	Admitted	...	...	...	...	403	1	...	...	...	1	23	45	3	...	...	1	33	2	690	...
						4·82	Died	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2
						6·43	Invalided	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...
7	7th Bengal Cavalry, Lucknow, February, 1893, from Bareilly.	623	506	12·1	9	612·7	Admitted	10	...	3	...	102	2	...	...	1	5	10	20	2	...	1	...	16	3	310	...
						8·03	Died	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	4	1
						3·21	Invalided	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	...
8	8th Bengal Cavalry, Allahabad, January, 1893, from Nowgong.	608	503	10·8	28	596·4	Admitted	1	...	...	...	127	...	...	...	...	2	4	32	2	...	...	...	13	5	300	...
						4·93	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2
						4·93	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...
9	14th Bengal Lancers, Saugor, January, 1895, from Jullundur.	615	502	16·3	19	962·2	Admitted	...	...	1	...	262	2	...	1	...	2	...	53	3	...	...	1	28	13	483	...
						11·38	Died	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	4	3
						27·64	Invalided	...	...	...	...	...	...	...	1	...	...	3	1	...	...	...	...	...	8	17	...
10	1st Central India Horse, Agar, December, 1894, from Goona.	535	427	5·6	1	327·9	Admitted	...	...	...	...	47	8	1	4	...	1	4	8	3	...	1	...	17	5	140	...
						7·48	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
						9·35	Invalided	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5	...
11	2nd Central India Horse, Goona, December, 1894, from Agar.	549	448	10·1	5	741·1	Admitted	...	1	...	...	160	2	...	1	1	...	...	15	2	...	...	...	20	1	332	...
						10·93	Died	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2
						10·93	Invalided	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	2	6	...
12	Head quarters, Bengal Sappers and Miners, Roorkee (Local).	946	875	14·5	23	338·3	Admitted	18	...	3	...	73	5	...	...	1	4	10	16	5	...	1	1	33	3	296	...
						9·51	Died	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	4	5
						2·11	Invalided	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...
13	1st Bengal Infantry, Jhansi, February, 1896, from Peshawar.	876	766	29·9	11	1084·9	Admitted	...	2	...	1	458	...	...	...	1	1	9	61	4	...	...	...	40	7	831	...
						6·85	Died	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	5	1
						3·42	Invalided	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...
14	2nd Bengal Infantry, Agra, November, 1896, from Silchar.	885	762	22·3	21	860·9	Admitted	...	1	...	...	269	8	...	2	...	15	22	73	3	...	1	4	17	6	656	...
						19·21	Died	...	1	...	...	...	2	...	2	...	2	3	...	...	...	...	...	...	...	10	7
						22·60	Invalided	...	...	...	...	...	...	...	...	...	1	2	1	1	...	...	...	...	9	20	...
15	3rd Bengal Infantry, Allahabad, April, 1896, from Cawnpore.	890	756	19·3	21	773·8	Admitted	...	3	1	...	243	1	3	...	...	2	10	119	19	...	1	1	31	8	585	...
						8·99	Died	...	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	7	1
						10·11	Invalided	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	4	9	...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
16	4th Bengal Infantry, Dinapore, December 1894, from Fyzabad.	892	759	13·4	11	374·2 Admitted 12·33 Died 3·36 Invalided		...	...	...	...	58	30 2	...	...	2 1 1	6 1	9	15	3	...	2	...	11	5	284 5 3	...
17	5th Bengal Infantry, Alipore, April, 1896, from Allahabad.	882	763	28·2	62	1,072·1 Admitted 12·47 Died 17·01 Invalided		...	...	...	...	315 3 2	11 1 ...	8	2 ... 1	2 1 ...	5 1 ...	31 ... 3	44	2	...	4	...	30 ... 1	8 ... 3	818 6 15	...
18	6th Bengal Infantry, Meerut, January, 1896, from Fort William.	622	559	31·8	93	1,862·3 Admitted 19·22 Died ... Invalided		...	...	...	...	442 3 ...	4	... ...	... ...	12	23 3 ...	32	48	20	...	... ...	1	36	68	1,041 6 ...	...
19	7th Bengal Infantry, Doranda, January, 1897, from Lucknow.	457	418	10·7	6	564·6 Admitted 17·51 Died 6·56 Invalided		...	...	...	...	144 1 ...	1 1 ...	... ...	3 ... 2	1	3 1 ...	4	12	4	...	... ...	... ...	6	3	236 4 3	...
20	Wing, 7th Bengal Infantry, Buxa, January, 1897, from Lucknow.	424	363	11·2	14	964·2 Admitted 2·36 Died 2·36 Invalided		...	...	...	...	186 1 ...	1	... ...	... ...	... ...	2	17	21	1	...	... ...	... ...	2	24 ... 1	350 1 1	...
21	Head Quarters and Depôt, 9th Gurkha Rifles, Lansdowne, November, 1894, from Lucknow.	636	586	18·2	1	860·1 Admitted 7·80 Died 7·80 Invalided		...	...	...	...	200 1 2	7 2 1	8	1	1	3	2	33	1	...	... ...	... ...	34	2 ... 1	504 3 5	...
22	10th Bengal Infantry, Benares, December, 1895, from Barrackpore.	896	786	15·2	21	402·0 Admitted 17·86 Died 11·16 Invalided		...	...	...	...	55	27	2	... ...	1 ... 1	4	9 1 ...	13	1	...	2	... ...	74	8 ... 2	316 2 10	...
23	11th Bengal Infantry, Lucknow, January, 1897, from Doranda and Buxa.	893	760	16·6	26	576·3 Admitted 7·84 Died ... Invalided		54	... ...	... ...	... ...	147 1 ...	3 2 ...	1	... ...	4 1 ...	9	12	23	7 1 ...	...	2	... ...	17	4	438 5 ...	...
24	Head Quarters and Depôt, 12th Bengal Infantry, Bareilly October, 1895, from Nowshera.	658	558	6·8	9	250·9 Admitted 4·56 Died 15·20 Invalided		... ...	... ...	2 1 ...	... ...	55	5 1 ...	... ...	... ...	1	2	... ...	2	... ...	...	... ...	... ...	12	6 ... 7	140 3 10	...
25	13th Bengal Infantry, Fyzabad, January, 1895, from Dinapore.	874	778	34·1	19	1,210·8 Admitted 24·03 Died 30·89 Invalided		...	...	2	...	448 ... 1	8	... ...	2 ... 5	3 1 ...	44 14 ...	23 2 ...	72 1 ...	15	...	... ...	... ...	94 ... 2	17 ... 12	942 20 27	...
26	16th Bengal Infantry, Cawnpore, April, 1896, from Alipore.	718	623	24·7	45	764·0 Admitted 26·46 Died 1·39 Invalided		2	1 1 ...	... ...	2	99 1 ...	32 1 ...	... ...	... ...	3 1 ...	24 6 ...	28	42	14	...	1	... ...	37	20	476 11 1	...
27	17th Bengal Infantry, Silchar, October, 1896, from Agra.	448	402	15·7	11	995·0 Admitted 5·93 Died 2·23 Invalided		... ...	... ...	... ...	... ...	165	1	... ...	1	... ...	2	10	86	21	...	1	1	4	11 ... 1	400 1 1	...
28	Wing, 17th Bengal Infantry, Dibrugarh, October, 1896, from Agra.	450	338	14·5	14	1,789·9 Admitted 8·89 Died 20·00 Invalided		... ...	... ...	... ...	... ...	383	9	... ...	... ...	3	1	10 1 ...	30	3	...	2	1	7 2 ...	16 2 9	605 3 9	...
29	18th Bengal Infantry, Fort William, January, 1896, from Benares.	881	763	34·7	49	990·8 Admitted 7·95 Died 17·03 Invalided		... ...	... ...	... ...	... ...	327 ... 1	4	... ...	2	... 1 ...	6 1 ...	34	67 1 ...	8	...	... ...	3	21	5 ... 9	756 4 15	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
30	29th Punjab Infantry, Delhi, April, 1896, from Malakand.	905	764	19·0	35	985·6 12·15 7·73	Admitted Died Invalided	8	... ...	... ...	... ...	417 1 ...	44 1 ...	... ...	1	1	3 3 ...	14 1 2	25	1	... ...	3 1 ...	3	11	3 ... 3	753 7 7	... 4 ...
31	Head-quarters and Depôt, 39th Garhwal Rifles, Lansdowne, March, 1893, from Fort William.	656	551	21·0	6	992·7 6·10 13·72	Admitted Died Invalided	... ...	... ...	1 1 ...	... ...	178	11	14	... ...	2 ... 1	22 1 2	11 ... 2	15	5	... ...	1 ... 1	... ...	53 ... 1	10	547 3 9	... 1 ...
32	42nd Gurkha Rifles, Shillong, January, 1895, from Kohima.	906	796	33·9	5	938·4 26·49 2·21	Admitted Died Invalided	... ...	... ...	... ...	... ...	255	24	... ...	2 3 1	10	13 4 ...	30 2 ...	45 1 ...	9 1 ...	... ...	6 1 ...	... ...	27	... ...	747 17 2	... 7 ...
33	43rd Gurkha Rifles, Kohima, November, 1894, from Manipur.	903	808	49·8	2	1686·9 23·20 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	866 2 ...	31 1 ...	6	... ...	5 6 ...	13	36	55 2 ...	10	... ...	5 1 ...	... ...	57	57 1 ...	1,363 17 ...	... 4 ...
34	44th Gurkha Rifles, Manipur, December, 1894, from Shillong.	916	810	37·4	7	802·5 17·47 ...	Admitted Died Invalided	... ...	... ...	... ...	4 2 ...	230 1 ...	10 1 ...	16	... ...	1	12 3 ...	9	54 2 ...	15	... ...	2	... ...	124	15 1 ...	650 13 ...	... 3 ...
35	Bhopal Battalion, Sehore (Local).	938	813	19·3	12	1052·9 9·59 13·86	Admitted Died Invalided	2	3 2 ...	... ...	... ...	488	6 1 ...	90 1 ...	... ...	1	8 2 ...	2	44	10	... ...	1	1	41 ... 4	9 ... 6	856 6 13	... 3 ...
36	5th Madras Infantry, Cawnpore, August, 1897, from Secunderabad.	777	775	28·2	32	771·6 10·73 ...	Admitted Died Invalided	... ...	3 3 ...	... ...	... ...	265 1 ...	3	12	1	2 1 ...	4	11	26	1	... ...	3	... ...	42 1 ...	5	598 8 ...	... 5 ...
37	8th Madras Infantry, Barrackpore, January, 1896, from Bangalore.	819	745	21·6	40	728·9 18·32 10·99	Admitted Died Invalided	... ...	... ...	... ...	... ...	320 2 ...	... ...	24 1 ...	... ...	... ...	4 1 ...	4	26 1 ...	... ...	... ...	3	... ...	14 ... 5	3	543 7 9	... 8 ...
38	20th Madras Infantry, Meerut, September 1897, from Vizianagram.	817	771	45·0	61	1238·7 17·14 6·12	Admitted Died Invalided	... ...	1 1 ...	... ...	... ...	499	... ...	... ...	2 1 ...	1 1 ...	6 1 ...	12	11	6	... ...	... ...	... ...	39 ... 1	4 ... 3	955 12 5	... 2 ...
39	Wing, 22nd Madras Infantry, Cuttack, January, 1897, from Secunderabad.	372	334	13·8	13	802·4 2·69 ...	Admitted Died Invalided	... ...	... ...	1	... ...	49	... ...	... ...	... ...	... ...	1	5	9	1	... ...	1	... ...	56	3	268 1 ...	... ...
40	7th Bombay Infantry, Jubbulpore, March, 1896, from Raipur.	790	708	18·8	8	651·1 11·39 26·58	Admitted Died Invalided	... ...	... ...	... ...	... ...	182	1 1 ...	... ...	2 1 2	1 1 ...	7	16	58	... ...	... ...	... ...	... ...	70 ... 1	11 ... 10	461 6 21	... 3 ...
41	12th Bombay Infantry, Saugor, February, 1896, from Kamptee.	777	705	32·3	16	1286·5 15·44 28·31	Admitted Died Invalided	... ...	... ...	... ...	... ...	413	... ...	6	4 ... 3	... ...	25 8 ...	21 ... 3	67	5	... ...	1	3	71 ... 3	12 ... 8	907 9 22	... 3 ...
42	14th Bombay Infantry, Bareilly, August, 1897, from Poona.	812	718	13·3	6	456·8 16·01 34·48	Admitted Died Invalided	... ...	... 1 ...	... ...	... ...	79	6 1 ...	9	1	4 2 1	11	14	13	4 1 ...	... ...	2	... ...	54	7 1 24	328 10 28	... 3 ...
43	1-2nd Gurkha Rifles, Dehra Dun (Local).	689	555	15·2	25	565·8 17·42 5·81	Admitted Died Invalided	... ...	... ...	3 1 ...	... ...	90 1 ...	6 1 ...	7	... ...	15 8 ...	11	8 ... 1	7	1	... ...	1	... ...	24 ... 1	... ...	314 12 4	... ...
44	2-2nd Gurkha Rifles, Dehra Dun (Local).	720	624	17·9	24	742·0 19·44 2·78	Admitted Died Invalided	... ...	... ...	... ...	... ...	106 1 ...	23 2 ...	29	1	12 6 ...	3 1 ...	7 2 ...	10	3	... ...	... ...	... ...	39	4 ... 1	463 14 2	... ...
45	1-3rd Gurkha Rifles, Almora (Local).	698	634	17·8	3	427·4 14·33 11·46	Admitted Died Invalided	1	... ...	... ...	... ...	63 2 ...	10 3 ...	... ...	... ...	5 4 ...	11	3	16	2	... ...	1	... ...	28 3 ...	11	271 9 8	... 1 ...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on
46	2-3rd Gurkha Rifles, Lansdowne (Local) .	896	789	24·3	5	704·7 6·70 2·23	Admitted Died . Invalided	...	...	...	...	197 ...	9 ...	23 ...	...	5 1 ...	17 2 ...	11 ...	16 ...	16 ...	...	1 ...	...	59 ...	2 ...	556 5 2	.. .. ..
47	No. 5 Bombay Mountain Battery, Dehra Dun, January, 1896, from Bhamo.	194	128	2·5	1	515·6 10·31 ...	Admitted Died . Invalided	...	...	...	...	12 ...	4 ...	1 ...	...	2 1 ...	4 ...	2 ...	4 ...	1 ...	...	...	...	4 ...	1 ...	66 1 ...	... .
48	Drivers, No. 9 Mountain Battery, Royal Artillery, Darjeeling, January, 1895, from Rawalpindi.	104	102	1·7	1	402·0 ... 29·41	Admitted Died . Invalided	...	...	...	...	11 ...	... ...	1 ...	...	... ...	... ...	3 2	3 1	2 ...	...	... ...	...	... ...	... ...	41 ... 3	... ...
49	6th Bengal Cavalry, Jullundur, January, 1895, from Meerut.	368	378	2·6	3	269·8 8·15 2·72	Admitted Died . Invalided	...	...	...	...	35 ...	1 1 ...	... ...	...	2	1	1	5	1	...	1	...	4	2	102 1 1	... ...
50	9th Bengal Lancers, Rawalpindi, December, 1893, from Peshawar	490	428	11·0	8	644·9 4·08 8·16	Admitted Died . Invalided	...	...	...	...	125 ...	2 ...	... ...	 1	... ...	4 1 ...	9	24 ... 2	1	...	1	...	4	1	276 2 4	... ...
51	10th Bengal Lancers, Jhelum, November, 1893, from Umballa.	623	438	10·5	10	511·4 4·82 3·21	Admitted Died . Invalided	...	...	...	...	66 ...	2 1 ...	... ...	... ...	1 ... 1	2	8	18	1	...	... ...	...	15	3	224 3 2	... ...
52	11th Bengal Lancers, Nowshera, September, 1895, from Chitral.	509	426	6·9	5	497·7 5·89 5·89	Admitted Died . Invalided	...	...	...	...	57 ...	2 ...	... ...	1	2 ... 1	6 1 ...	4	11	... ...	...	... ...	...	8	6 ... 1	212 2 3	... 1 ...
53	12th Bengal Cavalry, Sialkot, February, 1897, from Mooltan.	616	487	7·7	6	425·1 1·62 11·36	Admitted Died . Invalided	...	...	...	...	54 ...	5 ...	... ...	... ...	... ...	... ...	5	6	1	...	... ...	2	5	5 1 1	207 1 7	... ...
54	13th Bengal Lancers, Peshawar, December, 1893, from Nowshera.	582	504	12·6	22	696·4 13·75 12·03	Admitted Died Invalided	...	...	...	...	157 ...	2 ...	... ...	1 1 ...	... ...	5 1 ...	7 ... 1	26	... ...	...	... ...	...	9	7 ... 3	351 5 7	... 3 ...
55	16th Bengal Cavalry, Mooltan, December, 1895, from Loralai.	609	516	12·9	32	899·2 18·66 8·21	Admitted Died . Invalided	...	...	1	...	223 ...	9 ...	... ...	... ...	1	13 2 ...	13 1 2	42 1 ...	1	...	... ...	...	12	6 ... 1	464 9 5	... 2 ...
56	17th Bengal Cavalry, Umballa, January, 1894, from Loralai.	615	531	8·8	8	461·4 4·88 3·25	Admitted Died . Invalided	...	...	...	...	100 ...	6 1 ...	... ...	... ...	... ...	2 1 ...	2	7	... ...	...	... ...	...	12	5	245 2 2	... 1 ...
57	18th Bengal Lancers, Ferozepore, January, 1892, from Loralai.	451	353	5·7	12	456·1 2·22 2·22	Admitted Died . Invalided	...	...	...	...	38 ...	4 ...	... ...	... ...	... ...	1 1 ...	7	7	2	...	... ...	...	3	4	161 1 1	... ...
58	19th Bengal Lancers, Mecan Meer, October, 1893, from Jhelum.	560	451	7·5	14	388·0 12·50 3·57	Admitted Died . Invalided	...	...	1	...	71 ...	17 ...	... ...	 1	... ...	7 3 ...	5	5	1	...	... ...	...	5	10 ... 1	175 4 2	... 3 ...
59	Wing, 19th Bengal Lancers, Ferozepore, August 1897, from Mecan Meer.	70	61	1·1	1	491·8 14·29 ...	Admitted Died . Invalided	...	...	...	...	7 ...	4 ...	1 ...	...	... ...	1 1	... ...	5 ...	... ...	...	... ...	...	... ...	1 ...	30 1 ...	... ...
60	1st Punjab Cavalry, Edwardesabad, February, 1896, from Dera Ismail Khan.	433	399	14·5	21	942·4 24·28 19·87	Admitted Died . Invalided	...	...	...	...	165 ...	3 ...	... ...	2 ... 1	... ...	18 5 ...	8	27	2	...	... ...	...	4	18 ... 4	376 6 9	... 5 ...
61	2nd Punjab Cavalry, Dera Ismail Khan, January, 1896, from Dera Ghazi Khan.	616	541	21·3	18	1578·6 6·49 17·80	Admitted Died . Invalided	1 ...	...	...	...	490 2	16 ...	1 ...	1 ...	2 1 2	21 2 ...	29	58	3	...	... ...	2	1	7 ... 1	854 4 11	... ...

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
3rd Punjab Cavalry, Kohat, February, 1896, from Edwardesabad.	622	515	10·4	14	751·5	Admitted	...	...	...	...	150	12	1	...	...	27	12	21	5	...	...	3	2	7	387	...
					19·29	Died	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	10	2
					6·43	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	4	...
5th Punjab Cavalry, Dera Ghazi Khan, December, 1895, from Rajanpur.	611	467	9·9	18	875·8	Admitted	...	...	...	...	153	11	31	...	1	5	11	22	3	...	...	...	2	13	409	...
					9·82	Died	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	3	
					9·82	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...
8th Bengal Infantry, Peshawar, August, 1897, from Nowgong.	904	818	27·9	23	1,018·3	Admitted	...	...	...	...	268	8	...	...	1	52	25	142	59	...	1	1	86	27	833	...
					19·91	Died	...	...	...	...	...	1	...	...	...	10	1	2	...	...	...	...	...	...	17	1
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14th Sikh Infantry, Ferozepore, January, 1894, from Peshawar.	562	457	10·5	7	402·6	Admitted	...	...	...	...	51	...	...	...	1	6	2	7	...	...	...	1	17	5	184	...
					14·23	Died	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	5	3
					7·12	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	4	...
15th Sikh Infantry, Ferozepore, April, 1896, from Malakand.	637	513	10·8	15	512·7	Admitted	...	...	...	...	64	2	...	2	1	1	2	5	1	...	...	...	21	6	263	...
					3·14	Died	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
					1·57	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
19th Punjab Infantry, Mooltan, December, 1893, from Fort Sandeman.	898	638	19·4	31	1,144·2	Admitted	...	...	...	...	489	5	3	...	3	18	22	34	...	...	...	3	11	10	730	...
					16·70	Died	...	...	...	...	1	...	...	...	...	5	1	1	...	...	...	...	...	...	9	6
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20th Punjab Infantry, Peshawar, February, 1896, from Waziristan.	690	575	15·0	17	513·0	Admitted	...	...	1	...	89	9	...	...	2	12	3	24	3	...	1	...	8	14	295	...
					20·29	Died	...	...	...	...	...	1	...	...	1	3	...	...	...	...	...	...	...	...	12	2
					17·39	Invalided	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	9	12	...
21st Punjab Infantry, Sialkot, November, 1895, from Kurram.	567	488	5·8	6	254·1	Admitted	...	...	...	...	26	10	...	...	1	8	3	2	1	...	1	...	9	2	124	...
					17·64	Died	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	1	...	6	4
					1·76	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
22nd Punjab Infantry, Jhelum, January, 1897, from Fort Lockhart.	589	513	6·8	11	389·9	Admitted	...	...	3	...	63	9	...	1	1	7	6	7	1	...	...	...	12	5	200	...
					11·88	Died	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	5	2
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23rd Pioneers, Umballa, October, 1895, from Chitral.	896	798	13·1	10	456·1	Admitted	...	...	...	...	176	15	...	...	...	5	4	14	1	...	...	...	17	6	364	...
					8·93	Died	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	5	3
					3·35	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...
Depôt, 24th Punjab Infantry, Mooltan, May, 1896, from Delhi.	170	160	3·9	10	1,031·0	Admitted	...	...	...	...	121	1	...	...	...	1	4	4	1	...	1	2	2	3	165	...
					23·53	Died	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	3
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25th Punjab Infantry, Rawalpindi, December, 1897, from Tirah Field Force.	569	511	13·3	76	861·1	Admitted	...	...	2	...	210	16	...	...	3	16	24	29	4	...	...	3	13	26	440	...
					31·63	Died	...	...	...	...	...	1	...	...	...	4	1	...	1	...	...	...	...	...	8	10
					7·03	Invalided	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...
26th Punjab Infantry, Peshawar, August, 1897, from Jullundur.	813	700	28·8	29	1,562·9	Admitted	...	...	...	...	824	3	...	..	2	7	15	54	17	...	...	1	10	3	1,094	...
					17·22	Died	...	...	...	...	1	...	...	...	1	3	...	1	...	...	...	...	...	...	7	7
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Depôt, 27th Punjab Infantry, Rawalpindi, October, 1895, from Kohat.	386	384	7·7	12	533·9	Admitted	...	...	...	...	96	7	...	1	2	2	13	8	2	...	...	...	6	7	205	...
					20·73	Died	...	...	...	...	...	3	...	...	1	...	...	...	...	...	...	...	...	...	5	3
					5·18	Invalided	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	2	...
28th Punjab Infantry, Rawalpindi, June, 1897, from Chitral.	596	477	18·4	25	899·4	Admitted	...	...	...	...	229	3	...	...	2	1	11	21	16	...	...	1	15	18	429	...
					10·07	Died	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	3	3
					8·39	Invalided	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	5	...
30th Punjab Infantry, Peshawar, November, 1895, from Chitral.	606	578	7·8	19	408·3	Admitted	...	...	1	...	132	7	...	...	...	4	2	17	3	...	...	...	5	7	236	...
					8·25	Died	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	4	1
					3·30	Invalided	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.
78	Depôt, 31st Punjab Infantry, Peshawar, April, 1893, from Meerut.	161	153	3·8	11	627·5 18·63 24·84	Admitted Died Invalided	... ...	... ...	... ...	... ...	50 ... 1	... ...	... ...	... ...	2 1 ...	4	7 1 ...	5	3	... ...	... ...	... ...	... ...	4	2 ... 3	96 2 4
79	32nd Pioneers, Mecan Meer, October, 1895, from Gilgit.	891	755	16·6	15	715·2 5·61 5·61	Admitted Died Invalided	... ...	... ...	7	... ...	236	87	... ...	 1	1 1 ...	5	4	19	1	... ...	... ...	2	22	5 ... 4	540 3 5
80	33rd Punjab Infantry, Datta Khel, January, 1897, from Rawalpindi.	656	517	7·7	18	603·5 22·87 12·20	Admitted Died Invalided	... ...	... ...	1	... ...	94	5 2 ...	40	... ...	1 1 ...	7 3 ...	5	23	6	... ...	... ...	... ...	5	21 ... 5	312 8 8
81	34th Pioneers, Jhelum, May, 1896, from Malakand.	743	637	8·8	4	353·2 4·04 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	68	9	... ...	... ...	... ...	4 1 ...	11	6	... ...	... ...	1	... ...	33	1	225 2 ...
82	35th Sikh Infantry, Peshawar, December, 1896, from Suakim.	564	442	4·8	15	461·5 3·55 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	72	10	... ...	2	... ...	1 1 ...	5 1 ...	11	1	... ...	... ...	... ...	3	6	204 2 ...
83	36th Sikh Infantry, Fort Lockhart, January, 1897, from Peshawar.	658	639	15·5	14	696·4 56·23 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	123 1 ...	16 1 ...	... ...	... ...	1 1 ...	10 4 ...	18	39	19	... ...	... ...	... ...	11	14	445 34 ...
84	37th Dogras, Peshawar, July, 1897, from Sialkot.	858	744	22·5	30	892·5 10·49 5·83	Admitted Died Invalided	... ...	... ...	... ...	... ...	372 1 2	21 1 ...	... ...	1	3 1 ...	12 2 ...	22	47	6	... ...	2	1	12	5	664 8 5
85	38th Dogras, Nowshera, December, 1895, from Waziristan.	587	512	6·0	8	349·6 17·04 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	85	1	... ...	... ...	4	3 1 ...	15	7	1	... ...	... ...	... ...	3	4	179 1 ...
86	40th Pathans, Rawalpindi, April, 1897, from Fort Sandeman.	829	721	21·2	25	1,068·0 18·09 1·21	Admitted Died Invalided	... ...	... ...	... ...	... ...	268	10	... ...	... ...	3 1 ...	27 5 ...	63 2 ...	36	17	1 1 ...	1	9	33	13	770 13 1
87	Depôt, 45th Sikh Infantry, Jullundur, June, 1896, from Mecan Meer.	167	149	4·6	14	845·6 47·90 17·96	Admitted Died Invalided	... ...	... ...	... ...	... ...	46	1	... ...	... ...	3 1 1	1	1	9	2	... ...	... ...	... ...	5	12 ... 2	126 1 3
88	1st Punjab Infantry, Datta Khel, January, 1897, from Abbottabad.	568	553	18·8	20	994·6 29·93 21·13	Admitted Died Invalided	... ...	... ...	1	... ...	160	18 1 ...	47	... ...	3 1 ...	13 2 ...	25 ... 1	47	7	... ...	... ...	1	6	27 ... 3	550 13 12
89	2nd Punjab Infantry, Abbottabad, February, 1897, from Edwardesabad.	653	569	13·7	19	861·2 18·38 12·25	Admitted Died Invalided	... ...	... ...	... ...	... ...	173 ... 1	13 2 ...	4	.. ..	3 ... 1	11	17 ... 1	35 ... 1	5	... ...	1	4	8	12 ... 3	490 6 8
90	4th Punjab Infantry, Wana, April, 1896, from Dera Ismail Khan.	910	827	32·4	19	1,371·2 13·19 7·69	Admitted Died Invalided	2	... ...	... ...	6 2 ...	701 ... 1	89 3 ...	... ...	 1	2 ... 1	17	26	42	2	... ...	... ...	6	11	2 ... 2	1,134 10 7
91	5th Punjab Infantry, Dera Ismail Khan, October, 1897, from Kohat and Kurram Field Force.	855	673	23·7	11	1,270·4 10·53 7·02	Admitted Died Invalided	... ...	... ...	... ...	... ...	542 1 ...	16	... ...	 1	2 1 ...	13 3 ...	51 ... 1	70 2 ...	5	... ...	... ...	4	10	11 ... 2	855 7 6
92	6th Punjab Infantry, Dera Ghazi Khan, November, 1897, from Miran Shah.	889	783	31·7	19	1,615·6 21·37 14·62	Admitted Died Invalided	... ...	... ...	... ...	... ...	748 1 ...	5	1	... ...	3	30 13 ...	56 1 1	68 1 ...	15	... ...	1	3	16	7	1,265 16 13
93	1st Sikh Infantry, Datta Khel, January, 1897, from Miran Shah.	554	530	18·5	40	760·4 46·93 7·22	Admitted Died Invalided	... ...	... ...	... ...	... ...	102	7 2 ...	31	2 2 ...	1	7 4 ...	42	18	6 1 ...	... ...	... ...	5	1	20 ... 1	403 22 4
94	2nd Sikh Infantry, Kohat, October, 1897, from Dera Ghazi Khan.	537	451	9·8	23	816·0 26·07 18·62	Admitted Died Invalided	... ...	... ...	... ...	... ...	113	8 1 ...	14	2	7	16 3 ...	20 1 ...	76	1	... ...	1	1	2	6 ... 4	368 7 10

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
Wing, 2nd Sikh Infantry, Dera Ismail Khan, December, 1896, from Dera Ghazi Khan.	355	354	7·4	8	949·2	Admitted	...	...	...	...	186	6	...	1	2	14	27	40	...	...	...	...	2	1	336	...
					16·90	Died	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	5	1
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3rd Sikh Infantry, Kohat, December, 1896, from Dera Ismail Khan.	666	574	15·9	21	944·3	Admitted	...	...	...	...	165	9	1	...	...	12	29	21	2	...	...	5	14	11	542	...
					7·51	Died	...	...	...	...	1	1	...	...	...	3	...	...	...	...	...	...	...	...	5	...
					4·50	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3	...
4th Sikh Infantry, Sarwekai, June, 1897, from Dera Ismail Khan.	888	805	36·4	33	1,665·8	Admitted	...	...	...	1	647	7	...	...	3	15	42	233	11	...	...	11	18	29	1,341	...
					12·39	Died	...	...	...	1	1	...	...	...	1	2	1	1	...	...	...	...	...	...	8	3
					10·14	Invalided	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	1	9	...
Corps of Guides, Mardan (Local).	966	810	23·6	54	538·3	Admitted	...	...	...	...	155	7	...	2	7	9	24	20	10	...	1	1	22	6	436	...
					11·39	Died	...	...	...	...	...	...	...	...	3	2	...	...	...	...	...	...	...	...	7	4
					24·84	Invalided	...	...	...	...	8	...	...	...	1	...	...	...	...	...	...	1	...	7	24	...
6th Madras Infantry, Edwardesabad, September, 1897, from Bangalore.	806	735	48·8	11	2,474·8	Admitted	...	2	2	...	1,526	7	...	1	...	29	11	40	13	...	4	2	13	17	1,819	...
					19·85	Died	...	...	...	...	...	1	...	1	...	4	1	4	1	...	1	...	...	...	15	1
					32·26	Invalided	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	11	26	...
13th Bombay Infantry, Ferozepore, August, 1897, from Deesa.	765	697	23·4	17	1,276·9	Admitted	...	...	...	...	413	32	15	...	1	11	32	25	3	...	1	2	48	21	890	...
					14·38	Died	...	...	...	...	1	5	1	...	...	1	...	...	...	...	1	...	...	...	9	2
					65·36	Invalided	...	...	...	...	1	...	...	1	1	...	3	...	...	...	...	...	2	19	50	...
1-1st Gurkha Rifles, Dharmsala (Local).	891	762	36·3	19	887·1	Admitted	...	...	...	...	180	83	...	1	9	11	12	14	11	...	2	...	134	12	676	...
					30·30	Died	...	...	...	...	...	6	...	...	5	3	...	...	...	...	...	...	1	...	22	5
					8·98	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	8	...
2-1st Gurkha Rifles, Dharmsala (Local).	686	639	31·4	6	989·0	Admitted	...	...	...	...	246	60	...	...	3	8	10	19	11	...	1	...	120	14	632	...
					11·66	Died	...	...	...	...	...	2	...	...	1	2	...	...	...	...	...	...	...	...	8	...
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Head-Quarters and Depôt, 1-4th Gurkha Rifles, Bakloh (Local).	450	426	13·1	3	666·7	Admitted	...	...	...	...	82	5	...	...	4	1	6	3	1	...	...	1	38	1	284	...
					15·56	Died	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	1	...	4	3
					26·07	Invalided	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	12	...
2-4th Gurkha Rifles, Bakloh (Local).	721	634	22·5	4	733·4	Admitted	...	...	...	...	102	53	...	...	3	3	13	7	4	...	...	1	74	44	465	...
					23·58	Died	...	...	...	...	...	7	...	...	...	1	1	1	...	...	...	...	1	...	15	2
					8·32	Invalided	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	6	...
1-5th Gurkha Rifles, Abbottabad (Local).	761	756	48·7	7	1,109·8	Admitted	...	...	...	...	241	15	...	...	15	8	13	34	15	...	2	3	33	6	839	...
					23·65	Died	...	...	...	...	2	2	...	...	8	1	...	...	...	...	1	...	...	...	17	1
					15·77	Invalided	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	3	12	...
2-5th Gurkha Rifles, Abbottabad, June, 1897, from Chitral.	613	450	28·1	4	1,053·3	Admitted	...	...	...	...	124	6	...	...	8	6	17	7	3	...	...	5	58	12	474	...
					19·38	Died	...	...	...	...	...	1	...	...	7	...	...	1	...	...	...	...	...	...	11	1
					4·89	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...
No. 1 Kohat Mountain Battery, Dera Ismail Khan, February, 1897, from Miran Shah.	189	176	5·5	2	1,244·3	Admitted	...	...	...	...	88	1	...	...	1	2	7	15	3	...	...	...	5	4	219	...
					...	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
					...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.
108	No. 2 Derajat Mountain Battery, Kohat, October, 1895, from Chitral.	290	150	4·7	2	1300·0 ... 17·24	Admitted Died Invalided	... ...	... ...	... ...	... ...	48	5	... ...	... ...	... ...	1	8	7	6	... ...	... ...	2	7	3 ... 2	195 ... 5
109	No. 3 Peshawar Mountain Battery, Edwardesabad, January, 1897, from Wana.	142	119	3·9	4	865·5 14·08 ...	Admitted Died Invalided	... ...	... ...	... ...	... ...	41	1	1	... ...	... ...	2 2 ...	6	1	... ...	... ...	... ...	... ...	3	2	103 2 ...
110	No. 4 Hazara Mountain Battery, Abbottabad, November, 1895, from Chitral.	175	155	6·1	2	1051·6 5·71 28·57	Admitted Died Invalided	... ...	... ...	1	... ...	32	4	... ...	... ...	... ...	1 1 ...	2	9	4	... ...	... ...	5	3	7 ... 3	163 1 5
111	Punjab Garrison Battery, Kohat (Local).	72	64	1·5	8	828·1 41·67 41·67	Admitted Died Invalided	... ...	... ...	... ...	... ...	26	1	2	... ...	... ...	1 1 ...	2	3	... ...	... ...	... ...	1	3	1 ... 3	53 2 3
112	No. 6 Bombay Mountain Battery, Datta Khel, January, 1897, from Dera Ismail Khan.	144	142	8·3	6	1478·9 41·67 ...	Admitted Died Invalided	... ...	... ...	... ...	2 1 ...	80	14	... ...	... ...	1 1 ...	1 1 ...	5	12	1	... ...	... ...	... ...	4	3	210 6 ...
113	Drivers, No. 1 Mountain Battery, Royal Artillery, Khyragully, May, 1897, from Jutogh.	84	75	·8	...	320·0	Admitted Died Invalided	... ...	... ...	... ...	... ...	3	6	... ...	... ...	... ...	1	2	1	... ...	... ...	... ...	... ...	1	... ...	24 ... ...
114	Drivers, No. 3 Mountain Battery, Royal Artillery, Jutogh, March, 1896, from Rawalpindi.	92	97	2·3	1	505·2 ... 10·87	Admitted Died Invalided	... ...	... ...	... ...	... ...	5	1	... ...	... ...	... ...	... ...	1	5	... ...	... ...	... ...	... ...	5 ... 1	... ...	49 ... 1
115	Drivers, No. 5 Mountain Battery, Royal Artillery, Rawalpindi, October, 1897 from Baragully.	140	98	2·3	1	591·8 7·14 7·14	Admitted Died Invalided	... ...	... ...	... ...	... ...	19	1	... ...	1 ... 1	... ...	1 1 ...	1	1	... ...	... ...	... ...	... ...	5	1	58 1 1
116	Drivers, No. 7 Mountain Battery, Royal Artillery, Baragully, April, 1897, from Rawalpindi.	86	75	1·4	2	373·3 ... 23·26	Admitted Died Invalided	... ...	... ...	1	... ...	6 ... 1	... ...	... ...	... ...	... ...	... ...	... ...	1	... ...	... ...	... ...	... ...	... ...	2	1	28 ... 2
117	Drivers, No. 8 Mountain Battery, Royal Artillery, Jutogh, March, 1897, from Rawalpindi.	111	94	4·2	4	1000·0	Admitted Died Invalided	... ...	... ...	... ...	... ...	34	... ...	... ...	... ...	... ...	1	... ...	2	6	... ...	... ...	1	... ...	4	... ...	94 ... ...
118	Governor's Body Guard, Madras (Local).	84	81	1·5	6	444·4 ... 83·33	Admitted Died Invalided	... ...	... ...	... ...	... ...	10	... ...	2	 1	... ...	... ...	2	2	1	... ...	... ...	... ...	3 ... 2	... ...	36 ... 7
119	1st Madras Lancers, Bellary, January, 1895, from Secunderabad.	597	549	17·0	19	537·3 11·73 33·50	Admitted Died Invalided	... ...	10 5 ...	... ...	... ...	52 ... 5	... ...	19	2 1 1	... ...	1	8 ... 1	17	2	... ...	2	... ...	12	11 ... 10	295 7 20
120	2nd Madras Lancers, Bangalore, February, 1892, from Secunderabad.	600	551	25·4	22	912·9 3·33 31·67	Admitted Died Invalided	... ...	1	... ...	... ...	100	2	13	9 ... 2	... ...	10 1 ...	11 ... 1	19	11	... ...	2	... ...	25 ... 1	27 ... 12	503 2 19
121	3rd Madras Lancers, Secunderabad, November, 1894, from Bellary.	580	538	13·9	22	646·8 3·45 20·69	Admitted Died Invalided	... ...	1 1 ...	... ...	... ...	69	5	... ...	... ...	... ...	1 1 ...	9 ... 4	31	... ...	... ...	1	9	18	13 ... 4	348 2 12

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
122	Madras Sappers and Miners, Bangalore (Local).	1,475	1151	55·9	61	1,174·6 5·42 18·98	Admitted Died Invalided	3	3 1 ...	... ...	... ...	461	8	117	4 1 1	1	9 3 1	50 ... 1	47	21	... ...	3	... ...	84 ... 1	56 ... 6	1,352 6 28	... 2 ...
123	1st Madras Pioneers, Bangalore, May, 1896, from Myingyan.	809	754	23·3	15	810·3 10·07 6·18	Admitted Died Invalided	1	1 1 ...	1	... ...	160	14 3 ...	74	2 1 ...	... ...	3 1 ...	13	62 2 ...	3	... ...	... ...	... ...	22 ... 2	29 1 1	611 11 5	... 2 ...
124	3rd Madras Infantry, Secunderabad, February, 1897, from Myingyan.	814	730	20·4	17	602·7 17·20 8·60	Admitted Died Invalided	... ...	4 2 ...	... ...	... ...	150 ... 2	... ...	16	1 2 ...	... ...	5 1 ...	8 1 ...	20 1 ...	1	... ...	... ...	... ...	18	19	440 11 7	... 3 ...
125	4th Madras Infantry, Ootacamund, July, 1897, from Trichinopoly.	824	766	22·6	26	783·3 8·50 2·43	Admitted Died Invalided	3	1 1 ...	... ...	... ...	191	1 1 ...	1	2	2 ... 1	8 1 ...	41 ... 1	28	1	... ...	3	... ...	52 ... 2	2	600 5 2	... 2 ...
126	9th Madras Infantry, Bellary, November, 1895, from Thayetmyo.	812	755	23·5	30	454·3 0·16 12·32	Admitted Died Invalided	... ...	1 1 ...	... ...	... ...	110 ... 1	1	... ...	1 ... 1	... ...	1	6 1 ...	15	2	... ...	... ...	... ...	33 ... 2	6 ... 2	343 3 10	... 2 ...
127	1st Burma Rifles, (10th Madras Infantry), Keng Tung, February, 1896, from Maymyo.	794	706	56·6	8	1,546·7 35·26 8·82	Admitted Died Invalided	... ...	3 2 ...	... ...	... ...	615 3 1	23 2 ...	6	1	7 2 ...	22 1 ...	36 2 ...	16	21	1 1 ...	3 1 ...	... ...	43 ... 1	16 ... 1	1,092 20 7	... 8 ...
128	11th Madras Infantry, Secunderabad, March 1895, from Vizianagram.	821	773	18·9	41	609·3 6·09 15·83	Admitted Died Invalided	... ...	5 4 ...	2	... ...	168	1	... ...	4 ... 3	... ...	2	10 ... 2	26	... ...	... ...	... ...	1	20 ... 1	19 ... 1	471 5 13	... ...
129	2nd Burma Battalion (12th Madras Infantry), Bhamo, January, 1897, from Mandalay.	844	729	11·8	11	522·6 3·55 3·55	Admitted Died Invalided	... ...	... ...	... ...	... ...	203	... ...	2	1	... ...	1 1 ...	16	9	4	... ...	... ...	... ...	15	3 ... 3	381 1 3	... 2 ...
130	13th Madras Infantry, Thayetmyo, November, 1895, from Cannanore.	796	672	17·2	...	565·5 11·31 16·33	Admitted Died Invalided	... ...	... ...	... ...	... ...	125 ... 3	2	... ...	1 1 1	1	5 ... 1	30	42 ... 1	... ...	... ...	... ...	... ...	33 1 2	3 ... 2	380 5 13	... 4 ...
131	14th Madras Infantry, St. Thomas' Mount, October, 1896, from Madras.	821	766	27·3	31	633·2 6·09 28·01	Admitted Died Invalided	... ...	1 1 ...	... ...	... ...	65 1 ...	5	... ...	1	2	... ...	27	19	6	... ...	... ...	... ...	28 ... 3	41 ... 15	485 2 23	... 3 ...
132	15th Madras Infantry, Rangoon, January, 1897, from Madras.	851	841	28·5	24	819·3 3·53 3·53	Admitted Died Invalided	... ...	... ...	... ...	... ...	109	... ...	2	8 ... 1	... ...	1	29	110 1 ...	12	... ...	... ...	... ...	23	18	689 2 3	... 1 ...
133	16th Madras Infantry, Rangoon, November, 1895, from Bellary.	806	746	21·5	50	888·7 11·17 8·68	Admitted Died Invalided	... ...	... ...	1	... ...	101	... ...	2	5	1	5 1 ...	32 ... 1	69	30	... ...	... ...	... ...	29	55 ... 4	663 5 7	... 4 ...
134	17th Madras Infantry, Bangalore, January, 1897, from Rangoon.	792	745	31·0	31	606·7 13·89 93·44	Admitted Died Invalided	... ...	... ...	... ...	1	69 ... 4	... ...	... ...	12 1 5	... ...	9 3 ...	25 1 5	20 ... 2	17 ... 6	1	3	... ...	14	46 1 27	452 7 74	... 4 ...
135	19th Madras Infantry, Secunderabad, January, 1895, from Cuttack and Berhampur.	813	750	28·2	35	1,562·7 18·45 11·07	Admitted Died Invalided	1	... ...	1	... ...	757	31 1 ...	4	4 1 1	10 ... 1	3 1 ...	9	34	14 1 ...	... ...	1	1	35 ... 1	15 1 ...	1,172 11 9	... 4 ...

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TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on
136	21st Madras, Pioneers, Belgam, March, 1897, from Bangalore.	576	562	17·8	12	658·4	Admitted	...	...	...	...	51	13	...	...	2	2	4	10	1	...	...	...	92	19	370	...
						12·15	Died	...	...	...	...	...	2	...	...	1	2	...	...	...	...	...	...	...	...	6	
						57·29	Invalided	...	...	...	...	1	...	...	1	...	...	1	1	...	...	...	...	2	18	33	...
137	Head Quarters, 22nd Madras Infantry, Berhampur, January, 1897, from Secunderabad.	457	432	6·7	9	460·6	Admitted	...	10	...	...	66	3	1	...	1	10	2	6	...	...	2	...	25	...	199	...
						30·63	Died	...	8	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	13	
						8·75	Invalided	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	4	...
138	23rd Madras Infantry, Trichinopoly, January, 1894, from Burma and Madras.	818	766	10·3	5	365·5	Admitted	6	1	...	...	55	2	1	2	...	2	14	12	...	...	1	...	33	...	280	...
						9·78	Died	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	6	
						8·56	Invalided	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	7	...
139	24th Madras Infantry, Quilon, December, 1896, from Bangalore.	799	741	17·5	29	641·0	Admitted	...	...	...	...	15	6	49	4	...	...	13	19	1	...	...	...	46	3	475	...
						5·01	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
						2·50	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
140	25th Madras Infantry, Cannanore, April, 1895, from Madras.	771	697	28·4	37	594·0	Admitted	...	...	...	...	48	1	5	1	5	1	14	21	5	...	1	...	87	11	414	...
						10·38	Died	...	...	...	...	...	...	...	...	2	...	1	1	...	...	...	...	...	...	5	
						19·46	Invalided	...	...	...	...	2	...	...	...	3	...	...	2	...	...	...	...	...	2	15	...
141	26th Madras Infantry, Belgam, December, 1895, from Rangoon.	806	767	15·3	4	462·8	Admitted	...	3	...	...	38	13	...	6	1	3	7	8	1	...	...	...	36	48	355	...
						43·42	Died	...	3	...	...	...	4	...	1	...	1	...	...	...	...	...	...	...	...	35	...
						24·81	Invalided	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	11	20	...
142	27th Madras Infantry, Moulmein, November, 1895, from Madras and St. Thomas' Mount.	819	761	14·8	8	277·3	Admitted	...	1	1	...	14	2	...	...	...	4	7	24	1	...	...	...	23	4	211	...
						12·21	Died	...	1	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	1	5	5
						17·09	Invalided	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	5	3	14	...
143	28th Madras Infantry, Madras, December, 1896, from Quilon.	821	784	22·0	24	535·7	Admitted	...	2	...	...	4	1	103	1	4	2	12	9	3	...	...	...	61	21	420	...
						10·96	Died	...	1	...	...	...	1	1	...	2	1	...	...	...	...	...	...	...	...	7	2
						13·40	Invalided	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	1	1	11	...
144	7th Burma Battalion (29th Madras Infantry), Fort Stedman, December, 1896, from Meiktila.	820	715	29·6	33	1130·1	Admitted	...	...	...	...	490	6	...	1	1	1	26	17	2	...	1	1	30	26	808	...
						8·54	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	5
						1·22	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
145	5th Burma Battalion (30th Madras Infantry), Myingyan, February, 1897, from Bhamo.	775	711	22·4	25	576·7	Admitted	4	1	...	...	83	7	...	...	2	2	16	19	5	...	3	...	37	15	410	...
						12·90	Died	...	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	6	4
						1·29	Invalided	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
146	6th Burma Battalion (31st Madras Infantry), Meiktila, February 1897, from Haka.	808	706	14·9	13	484·4	Admitted	...	...	...	1	84	9	...	...	2	1	15	16	3	...	2	...	40	19	342	...
						4·95	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3
						34·65	Invalided	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	18	28	...
147	4th Burma Battalion (32nd Madras Infantry), Mandalay, January, 1897, from Fort Stedman.	830	726	18·5	14	581·3	Admitted	12	...	...	...	108	...	33	1	3	7	15	21	8	...	2	...	25	32	422	...
						21·69	Died	...	...	...	...	...	...	...	1	...	2	...	1	...	...	...	...	...	...	8	10
						12·05	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	10	—
148	3rd Burma Battalion (33rd Madras Infantry), Mandalay, November, 1894, from Bhamo.	821	727	22·5	10	614·9	Admitted	...	...	...	...	156	...	2	1	1	1	10	3	8	...	...	...	32	8	447	...
						1·22	Died	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
						8·53	Invalided	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	7	...

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent, Invalided on account of old age.
149	No. 7, Bengal Mountain Battery, Bhamo, November 1895, from Dehra Dun.	220	197	9·8	7	1269·0 Admitted 13·64 Died 4·55 Invalided		...	...	...	...	115 1 ...	...	1	...	...	3 2 ...	6	12	1	... ...	... ...	... ...	2 ... 1	2	250 3 1	... ...
150	Drivers No. 6. Mountain Battery, Royal Artillery, Mandalay, January 1895, from Darjeeling.	149	124	3·2	4	879·0 Admitted 13·42 Died 6·71 Invalided		...	...	...	...	13	3	26	... ...	... ...	... ...	5	2	... ...	... ...	... ...	... ...	8	2 ... 1	109 ... 1	... 2 ...
151	Governor's Body-Guard, Poona (Local).	69	60	·8	...	750·0 Admitted 28·99 Died ... Invalided		1	... ...	... ...	... ...	23	... ...	... ...	... ...	... ...	... ...	3	4	1	... ...	... ...	... ...	... ...	... ...	45 1 ...	... 1 ...
152	1st Bombay Lancers, Neemuch, November 1891, from Deesa.	618	514	15·2	7	823·0 Admitted 3·24 Died 6·47 Invalided		... ...	... ...	... ...	1 1 ...	189	3	6	1 1 ...	... ...	5	2	14	3	... ...	2	... ...	14	6 ... 2	423 2 4	... ...
153	2nd Bombay Lancers, Poona, February, 1892, from Neemuch.	602	558	17·8	17	989·2 Admitted 28·24 Died 11·63 Invalided		... ...	1	... ...	... ...	51	18	60	1	... ...	2	5	15	19	... ...	... ...	4	12	9	552 16 7	... 1 ...
154	3rd Bombay Cavalry, Deesa, March 1892, from Poona.	618	546	10·7	10	725·3 Admitted 6·47 Died 50·16 Invalided		... ...	... ...	1	... ...	114	4	6	1	2 ... 1	7	11 ... 2	14	4	... ...	2	2	13	5 ... 12	396 1 31	... 3 ...
155	4th Bombay Cavalry, Sirur (Local).	610	535	10·1	12	405·6 Admitted 22·95 Died 1·04 Invalided		... ...	2 1 ...	2	... ...	29	5	... ...	... ...	... ...	... ...	... ...	15	1	... ...	1	1	11	2 ... 1	217 13 1	... 1 ...
156	5th Bombay Cavalry, Quetta, March 1896, from Jacobabad.	613	528	15·9	12	1,225·4 Admitted 17·94 Died 32·63 Invalided		103 4 ...	... ...	... ...	... ...	257 1 ...	17 2 ...	5	1 1 ...	1	8 1 ...	15 ... 7	7	3	... ...	... ...	4	25	5 ... 13	647 9 20	... 2 ...
157	6th Bombay Cavalry, Jacobabad, December 1895, from Fort Sandeman.	606	531	18·2	9	1,263·7 Admitted 0·60 Died 1·65 Invalided		... ...	... ...	... ...	... ...	468 1 ...	1	... ...	... ...	2	14 3 ...	9 ... 1	30	... ...	... ...	... ...	2	15	2	671 4 1	... ...
158	7th Bombay Lancers, Fort Sandeman, November 1895, from Quetta.	589	507	16·3	26	1153·8 Admitted 8·49 Died 5·09 Invalided		... ...	... ...	... ...	... ...	329	5	... ...	... ...	... ...	12 1 ...	16	26	5	... ...	... ...	14	6	13 ... 2	585 2 3	... 3 ...
159	15th Bengal Lancers, Loralai, November 1895, from Mooltan.	623	505	22·2	34	1,564·4 Admitted 11·24 Died 17·66 Invalided		... ...	... ...	... ...	... ...	482 ... 1	1	... ...	... ...	1	12 4 ...	56 ... 3	21	46	... ...	2	8	2	4 ... 2	790 4 11	... 3 ...
160	Aden Troop, Aden (Local).	100	90	2·0	3	955·6 Admitted ... Died 10·00 Invalided		... ...	... ...	... ...	... ...	28	3	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1	... ...	86 ... 1	... ...
161	Bombay Sappers and Miners, Kirkee (Local).	809	619	16·8	18	762·5 Admitted 12·36 Died 16·07 Invalided		... ...	1 1 ...	... ...	... ...	124 1 ...	5 1 ...	3	1	... ...	... ...	13	64 2 ...	7	... ...	3	1	28 ... 1	11 ... 3	472 8 13	... 2 ...
162	1st Bombay Infantry, Peshin, November 1890, from Shelabagh.	794	704	20·8	14	886·4 Admitted 6·30 Died 18·89 Invalided		... ...	... ...	... ...	... ...	365 1 2	9	1	2 ... 2	... ...	8 2 ...	30 1 3	37 ... 1	4	... ...	... ...	4	7 ... 1	2	624 5 15	... ...
163	2nd Bombay Infantry, Poona, April 1894, from Peshin.	796	693	18·6	7	686·9 Admitted 21·36 Died 15·08 Invalided		... ...	... ...	... ...	... ...	145 ... 1	6 2 ...	4	... ...	1 ... 1	9 3 ...	9	30	20	... ...	1	... ...	34 ... 4	6 ... 2	476 12 12	... 5 ...
164	3rd Bombay Infantry, Satara, December 1896, from Mhow.	788	717	15·1	11	630·4 Admitted 11·42 Died ... Invalided		... ...	2 2 ...	... ...	... ...	211	... ...	2	... ...	... ...	4 1 ...	7	9	3	1 1 ...	... ...	1	27	8	452 6 ...	... 3 ...
165	4th Bombay Rifles, Ahmedabad, July 1897, from Mhow.	793	723	22·0	11	811·9 Admitted 10·09 Died 16·39 Invalided		... ...	... ...	... ...	... ...	245 ... 2	11 1 ...	6	3 ... 1	... ...	12 3 ...	17 1 4	29	6	... ...	... ...	... ...	64	4 ... 2	587 7 13	... 1 ...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
166	5th Bombay Infantry, Rajkot, July, 1897, from Ahmedabad.	778	709	22·9	13	949·2 Admitted 6·43 Died 38·56 Invalided	... ... 1 ... ... 1					304	20 1 ...	6	1 ... 2	... ...	11 1 ...	20 ... 6	15	6	... ...	1	4 ... 4	40 ... 1	9 ... 13	673 3 30	... 1 ...
167	8th Bombay Infantry, Baroda, March, 1895, from Ahmedabad.	807	740	16·5	6	669·5 Admitted 7·43 Died 26·02 Invalided	... ...					207	7 1 ...	4	... ...	... ...	2 1 ...	25 1 1	39 1 ...	4	... ...	2 1 ...	1	29 ... 4	5 ... 14	491 6 21	... ...
168	9th Bombay Infantry, Ahmednagar, April, 1895, from Quetta.	798	742	10·7	6	459·6 Admitted 10·03 Died ... Invalided	... 2 1 3 ... 1					73	2	32	2	1 1 ...	2 2 ...	16	22 1 ...	11 1 ...	... ...	1	... ...	22	5	341 7 ...	... 1 ...
169	10th Bombay Infantry, Aden, November, 1896 from Satara.	787	702	19·4	17	755·0 Admitted 13·98 Died ... Invalided	... ...					158 2 ...	13	12	1 1 ...	4 1 ...	3 1 ...	24 1 ...	57 1 ...	18	... ...	... ...	11 1 ...	39	9	530 10 ...	... 1 ...
170	16th Bombay Infantry, Fort Sandeman, October, 1897, from Quetta.	773	733	18·3	26	1,065·5 Admitted 12·94 Died 58·21 Invalided	77					382 ... 10	1	4	1	... ...	3 2 ...	54 1 20	13	5 1 ...	1	1 1 ...	2	26	8 ... 9	781 6 45	... ...
171	17th Bombay Infantry, Bhuj, December, 1894, from Aden.	790	711	21·5	11	566·8 Admitted 8·86 Died 21·52 Invalided	... 3					34	8 1 ...	61	3 1 ...	 1	11 1 ...	12	20	... ...	... ...	... ...	12 ... 4	33 ... 1	5 ... 6	403 3 17	... ...
172	19th Bombay Infantry, Poona, February, 1896, from Mhow.	791	711	17·6	14	824·2 Admitted 17·70 Died 7·59 Invalided	... ...					196	18 1 ...	5 ... 1	1	... ...	2 1 ...	11	50 1 ...	9	... ...	1	... ...	15 ... 1	6 1 1	586 14 6	... ...
173	20th Bombay Infantry, Mhow, January, 1896, from Nasirabad	797	728	25·9	24	707·4 Admitted 16·31 Died 42·66 Invalided	... 1 ... ... 1					122 ... 13	10 1 ...	15	... ...	1	9 4 ...	26 ... 6	72 2 1	6	... ...	1	1	75 ... 6	1 ... 4	515 9 34	... ...
174	21st Bombay Infantry, Bombay (Local).	784	716	19·3	13	737·4 Admitted 14·03 Died 5·10 Invalided	1 1					168	22 2 ...	2	... ...	2 1 1	1	22	69	12 1 ...	1 1 ...	5	2	43 1 1	7	528 10 4	... 1 ...
175	22nd Bombay Infantry, Bombay, March, 1891, from Ahmedabad.	773	716	24·3	19	995·8 Admitted 15·52 Died 11·64 Invalided	46					98	114 1 ...	3	 1	1 ... 1	3 1 ...	30	75	23	... ...	1 1 ...	1	24 ... 1	9 ... 4	713 9 9	... 1 ...
176	23rd Bombay Rifles, Nasirabad, February, 1896, from Rajkot.	629	582	10·8	1	308·6 Admitted 9·54 Died 12·72 Invalided	... ...					39 ... 2	... ...	... ...	2 1 ...	... ...	7	4	13	1	... ...	... ...	2	25 ... 4	... ...	232 8 ...	... 1 ...
177	Wing, 23rd Bombay Rifles, Neemuch, February, 1896, from Rajkot.	152	128	4·6	1	851·6 Admitted 6·58 Died ... Invalided	... ...					47	... ...	4	... ...	1	2	... ...	3	2	... ...	... ...	... ...	4	... ...	109	... 1 ...
178	24th Bombay Infantry, Quetta, July, 1890, from Mombasa Field Force.	873	768	15·9	7	815·1 Admitted 3·44 Died ... Invalided	188 ... ... 1					172	... ...	... ...	... ...	... ...	7	6	25	3	1 1 ...	... ...	2	48	16	626 2 ...	... 1 ...
179	25th Bombay Rifles, Quetta, November, 1897, from Fort Sandeman.	761	722	31·8	25	1,761·8 Admitted 17·08 Died 31·54 Invalided	... ...					686 ... 1	24	2	 3	... ...	19 6 ...	46 ... 2	99 5 ...	11 1 ...	... ...	1	8	32	15 ... 10	1,272 12 24	... 1 ...
180	26th Bombay Infantry, Loralai, May, 1897, from Chaman.	867	755	23·5	28	1,292·7 Admitted 5·77 Died 2·31 Invalided	... ...					548	12	... ...	... 1 ...	1	6 2 ...	37 1 ...	53	34	... ...	... ...	6	52	26	976 5 2	... ...
181	1st Baluch Battalion (27th Bombay Infantry), Hyderabad, March, 1895, from Loralai.	808	542	13·9	23	509·2 Admitted 1·24 Died ... Invalided	... ...					89	1	2	... ...	1	2	7	18	... ...	1	... ...	1	46	1	276 1 ...	... ...

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Regiment, Station, Last Move.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All Causes.	Died absent. Invalided on account of old age.
28th Bombay Pioneers, Kirkee, April, 1894, from Manipur.	604	544	16·1	34	720·6 19·87 4·97	Admitted Died Invalided	...	1	1	...	125 1 ...	... ...	1	2 1 ...	... ...	6 2 ...	20 1 ...	31 1 ...	6	... ...	3	... ...	20	16	392 12 3	... ...
2nd Baluch Battalion (29th Bombay Infantry), Chaman, April, 1894, from Loralai.	800	686	13·8	13	619·5 10·00 6·25	Admitted Died Invalided	...	...	...	...	132 ... 1	22	... ...	1	2	10 1 ...	36	8 ... 1	... ...	1 1 ...	1	6	13 1 ...	1 ... 2	425 3 5	... 5 ...
3rd Baluch Battalion (30th Bombay Infantry), Kurrachee, March, 1893, from Loralai.	799	704	19·7	22	1133·5 21·28 8·76	Admitted Died Invalided	...	...	...	...	419 1 ...	12	1	... ...	... ...	11 5 ...	39 3 ...	32	4	... ...	2	3	28 ... 3	6 ... 2	798 9 7	... 8 ...
Malwa Bhil Corps, Sirdarpore (Local).	598	560	10·9	13	644·6 10·03 41·81	Admitted Died Invalided	...	5	...	...	78	9	... ...	... ...	... ...	19 1 ...	18 ... 6	10	13	... ...	2	... ...	19	2 ... 2	361 5 25	... 1 ...
Meywar Bhil Corps, Kherwara (Local).	711	628	9·4	2	417·2 5·63 9·85	Admitted Died Invalided	...	...	1	...	97 ... 1	1 1 ...	1	5 1 4	... ...	7 2 ...	8	1	... ...	... ...	... ...	... ...	3	2 ... 1	262 4 7	... ...
Merwara Battalion, Ajmere (Local).	707	605	8·6	17	401·7 8·49 38·19	Admitted Died Invalided	...	...	...	...	46	... ...	... ...	3	3	17 5 ...	18 ... 3	6	5	... ...	... ...	... ...	17	 8	243 5 27	... 1 ...
Deoli Irregular Force, Deoli (Local).	831	788	19·6	22	894·7 4·81 25·27	Admitted Died Invalided	...	...	...	...	364 ... 7	5	... ...	1 ... 1	... ...	7 2 ...	10	20 ... 1	4	... ...	... ...	5	47 1 2	18 ... 2	705 3 21	... 1 ...
Erinpura Irregular Force, Erinpura (Local).	832	725	15·1	24	503·4 15·62 72·12	Admitted Died Invalided	15	... ...	2 1 ...	... ...	98	2	... ...	1 1 ...	3 ... 1	11	22 ... 3	5	17 ... 2	... ...	... ...	2	8	6 ... 50	365 5 60	... 8 ...
2nd Madras Infantry, Raipur. March, 1896, from Belgam.	586	516	17·0	9	618·2 13·65 5·12	Admitted Died Invalided	...	4 4 ...	... ...	... ...	127	5	... ...	2 ... 2	1	8 ... 1	1	10	4	... ...	... ...	1	105	... ...	319 6 3	... 2 ...
Wing, 2nd Madras Infantry, Sambalpur, March, 1896, from Belgam.	277	249	3·6	5	409·6 7·22 7·22	Admitted Died Invalided	...	...	...	...	38	4 1 ...	4	... ...	... ...	3	3	5	1	... ...	1	... ...	5 1 ...	1	102 2 2	... ...
7th Madras Infantry, Kamptee, February, 1896, from Belgam.	813	775	33·6	24	1304·5 18·43 15·99	Admitted Died Invalided	...	1	1	...	667 1 2	29 1 ...	3	6 3 2	... ...	3 2 ...	15 2 ...	10	4	... ...	... ...	... ...	76 1 3	14 2 1	1,011 13 13	.. 2 ..
Drivers, No. 2 Mountain Battery, Royal Artillery, Quetta, February, 1896, from Jutogh.	149	133	2·3	1	609·0	Admitted Died Invalided	11	... ...	... ...	... ...	28	... ...	... ...	... ...	... ...	... ...	... ...	5	... ...	... ...	... ...	... ...	6	1	81	... ...
1st Lancers, Hyderabad Contingent, Mominabad, November, 1894, from Aurangabad.	493	451	16·6	14	951·2 10·14 2·03	Admitted Died Invalided	...	1	...	...	231	11 2 ...	... ...	2	... ...	3	1	21	... ...	... ...	2 1 ...	7	3	... ...	429 4 1	... 1 ...
2nd Lancers, Hyderabad Contingent, Bolarum, December, 1894, from Mominabad.	491	459	13·1	10	967·3 6·11 2·04	Admitted Died Invalided	139	3 1 ...	... ...	... ...	64	36	... ...	... ...	1	2	5	63	1	... ...	... ...	... ...	6	1	444 2 1	... 1 ...
3rd Lancers, Hyderabad Contingent, Aurangabad, January, 1895, from Hingoli.	521	483	7·6	1	387·2 5·76 3·84	Admitted Died Invalided	...	5 3 ...	... ...	... ...	63	1	... ...	... ...	... ...	3	... ...	17	... ...	... ...	1	... ...	5	... ...	187 3 2	... ...

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

A.—Sickness and Mortality.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Regiment, Station, Last Move.	Number horse on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Smallpox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	ALL CAUSES.	Died absent. Invalided on account of old age.
197	4th Lancers, Hyderabad Contingent, Hingoli, December, 1894, from Bolarum.	508	460	12·4	12	773·9	Admitted	...	5	...	...	135	5	3	...	...	1	5	19	1	...	...	2	14	1	356	...
						5·91	Died	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...
						3·94	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...
198	1st Infantry, Hyderabad Contingent, Jalna, November 1897, from Hingoli.	826	756	8·9	6	320·1	Admitted	...	1	...	...	101	2	...	...	...	3	2	18	5	...	3	5	10	2	242	...
						9·69	Died	...	1	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	1	6	...
						7·26	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	3	6	...
199	2nd Infantry, Hyderabad Contingent, Raichur, November, 1897, from Bolarum.	619	542	5·8	1	254·6	Admitted	4	...	...	...	21	6	7	...	...	4	2	14	1	...	1	10	7	4	138	...
						4·85	Died	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	3	...
						6·46	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4	...
200	3rd Infantry, Hyderabad Contingent, Ellichpur, January, 1893, from Hingoli.	821	753	16·0	8	727·8	Admitted	...	...	...	...	292	1	1	...	2	8	8	35	...	...	...	14	41	1	548	...
						3·65	Died	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...
						12·18	Invalided	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	4	...	8	...
201	4th Infantry, Hyderabad Contingent, Aurangabad, January, 1893, from Raichur.	819	751	10·3	8	374·2	Admitted	...	2	...	...	133	2	...	1	3	7	7	28	...	...	2	3	14	3	281	...
						9·77	Died	...	2	...	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	7	1
						12·21	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	10	...
202	5th Infantry, Hyderabad Contingent, Bolarum, November 1897, from Raichur.	831	747	11·9	16	514·1	Admitted	...	...	...	...	156	9	1	...	2	6	15	61	...	...	...	17	10	2	384	...
						8·42	Died	...	...	...	...	...	1	...	...	...	2	...	1	...	...	...	...	...	...	4	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
203	6th Infantry, Hyderabad Contingent, Hingoli, November, 1897, from Jalna.	829	766	13·2	10	377·3	Admitted	...	...	...	...	97	13	...	...	...	4	7	14	...	1	...	3	36	1	289	...
						10·86	Died	...	...	...	...	...	1	...	...	...	1	2	...	...	1	...	...	...	...	7	...
						1·21	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
204	No. 1 Field Battery, Hyderabad Contingent, Bolarum, December, 1894, from Aurangabad.	109	98	3·1	1	642·9	Admitted	9	...	...	...	8	4	...	...	...	...	1	6	1	...	...	2	2	1	63	...
						...	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
						18·35	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...
205	No. 2 Field Battery, Hyderabad Contingent, Aurangabad, January, 1895, from Bolarum.	109	101	1·5	1	48·51	Admitted	...	...	...	...	16	...	5	...	...	...	1	4	...	...	...	...	...	...	49	...
						...	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
206	No. 3, Field Battery, Hyderabad Contingent, Hingoli, December, 1894, from Ellichpur.	113	100	1·7	1	290·0	Admitted	...	...	...	...	10	...	...	...	...	...	...	1	...	...	...	...	...	...	29	...
						...	Died	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
207	No. 4 Field Battery, Hyderabad Contingent, Ellichpur, December, 1894, from Hingoli.	111	96	3·9	2	1802·1	Admitted	...	...	...	...	115	1	...	1	...	3	1	11	1	...	...	...	2	...	173	...
						18·02	Died	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	Commands, Garrisons.	Number borne on the rolls.	Average strength present.	Average number constantly sick.	Sent on sick leave.	Ratio per 1,000.	Admission-rate is calculated on column 4; total death and invaliding rates on column 3.	Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Venereal Diseases.	Anæmia and Debility.	All causes.	Died absent. Invalided on account of old age.
1	BENGAL . .	32,993	28,661	923·9	904	828·5	Admitted	100	15	17	8	10,288	376	264	34	110	350	557	1,523	236	...	51	22	1,513	425	23,747	...
						12·64	Died .	...	12	3	3	24	2	2	7	43	58	12	10	3	...	3	...	1	4	278	139
						10·13	Invalided	...	...	...	...	15	1	...	17	6	3	22	5	1	...	1	...	24	125	336	...
2	PUNJAB . .	37,851	32,647	969·3	1,007	875·8	Admitted	3	2	22	9	13,131	831	193	22	125	571	912	1,734	325	1	25	94	1,119	598	28,591	...
						15·56	Died .	...	...	2	4	10	54	1	5	41	140	15	15	4	1	3	...	4	1	435	154
						9·35	Invalided	...	...	...	...	31	...	...	9	16	...	12	3	...	...	1	4	8	111	354	...
3	MADRAS . .	24,223	22,019	698·2	683	718·7	Admitted	30	49	6	2	4,855	159	479	75	46	125	528	785	185	2	30	12	1,084	589	15,825	...
						11·72	Died .	...	34	...	...	8	17	1	11	7	20	7	6	1	1	1	...	1	5	204	80
						17·22	Invalided	...	...	...	...	20	...	...	20	8	2	23	6	6	...	...	...	33	147	417	...
4	BOMBAY . .	28,703	25,448	689·1	611	830·7	Admitted	442	24	9	5	8,602	423	255	42	28	285	727	1,106	325	6	33	114	1,158	266	21,139	...
						11·71	Died .	5	13	1	2	8	18	...	10	4	59	11	14	4	5	2	1	4	3	259	77
						17·59	Invalided	...	...	...	...	43	...	...	19	6	1	67	3	2	...	...	9	34	168	503	...
5	HYDERABAD CONTINGENT.	7,200	6,563	126·0	91	550·4	Admitted	152	17	...	...	1,442	91	17	4	8	44	55	312	10	1	9	63	150	16	3,612	...
						7·50	Died .	...	9	...	...	4	5	...	1	2	5	2	3	...	1	1	...	1	1	42	12
						5·42	Invalided	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	7	13	37	2
6	CHITRAL .	1,666	1,666	31·8	...	752·1	Admitted	...	...	...	23	492	30	1	...	7	19	93	89	25	...	3	3	35	20	1,253	...
						15·01	Died .	...	...	...	0	4	...	...	...	4	2	2	...	...	...	...	...	...	1	25	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	MALAKAND .	1,482	1,482	14·2	...	315·8	Admitted	...	...	...	...	99	19	...	2	...	20	37	62	12	...	3	4	4	7	468	...
						6·75	Died .	...	...	...	...	...	1	...	...	...	3	2	1	...	...	...	...	...	...	10	...
						...	Invalided	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	GRAND TOTAL	134,118	118,486	3452·5	3,296	798·7	Admitted	727	107	54	47	38,909	1,929	1,209	179	324	1,414	2,909	5,611	1,118	10	154	312	5,063	1,921	94,635	...
						12·79	Died .	5	68	6	15	58	119	4	34	101	293	254	49	12	8	10	1	11	15	1,254	462
						12·30	Invalided	...	...	...	...	109	1	...	05	38	6	124	17	9	...	2	15	106	564	1,649	2

N.B.—This table excludes statistics for periods of field service, as such statistics cannot be obtained by regiments.
(*a*) Including 1 death which occurred among the Kapurthala Imperial Service Troops at Parachinar, and which is not included in any of the commands or risons.

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

B.—Race composition, and Location of detachments.

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	Total.
1	Governor General's Body-Guard, Dehra Dun, with 9 men detached at Simla	13	33	...	...	...	17	63	...	24	...	33	57	...	...	...	120
2	1st Bengal Lancers, Meerut, with 40 men detached at Delhi	3	...	...	...	...	3	6	...	10	...	603	613	...	...	...	619
3	2nd Bengal Lancers, Bareilly	147	148	2	...	...	156	453	...	21	...	141	162	...	...	...	615
4	Depôt, 3rd Bengal Cavalry, Fyzabad	12	23	...	...	...	23	58	...	2	...	57	59	...	...	...	117
5	4th Bengal Cavalry, Cawnpore	8	139	6	...	...	151	304	...	24	3	294	321	...	...	...	625
6	5th Bengal Cavalry, Nowgong, with 84 men detached at Alipore	98	27	16	...	...	213	354	...	24	1	237	262	...	...	...	616
7	7th Bengal Cavalry, Lucknow, with 40 men detached at Alipore	74	80	74	...	...	223	451	...	6	...	162	168	...	...	...	619
8	8th Bengal Cavalry, Allahabad	118	91	...	...	...	99	308	54	80	7	171	312	...	...	...	620
9	14th Bengal Lancers, Saugor, with 108 men detached at Jubbulpore and Sutna	4	...	...	...	...	595	599	...	6	...	17	23	2	...	...	624
10	1st Central India Horse, Agar, with 15 men detached at Indore	56	241	...	...	...	64	361	...	76	45	134	255	...	...	...	616
11	2nd Central India Horse, Goona, with 28 men detached at Sehore and Gwalior	24	228	...	...	...	121	373	...	63	15	169	247	3	...	...	623
12	Bengal Sappers and Miners, Roorkee, with 452 men detached at Rawalpindi, Peshawar, Quetta, Gilgit, and with Field Forces	123	474	6	10	...	157	770	...	417	82	135	634	2	...	...	1,406
13	1st Bengal Infantry, Jhansi, with 89 men detached at Nowgong	2	3	...	...	...	855	860	...	5	...	21	26	8	...	...	894
14	2nd Bengal Infantry, Agra	731	...	...	...	...	102	833	...	...	1	41	42	19	...	...	894
15	3rd Bengal Infantry, Allahabad	1	...	...	...	...	847	848	...	...	...	51	51	7	...	...	906
16	4th Bengal Infantry, Dinapore, with 200 men detached at Gantak	792	18	...	...	...	27	837	...	...	...	52	52	12	...	...	901
17	5th Bengal Infantry, Alipore, with 68 men detached at Dum-Dum	1	3	4	...	...	15	23	...	9	2	852	863	7	...	...	893
18	6th Bengal Infantry, Meerut	...	...	...	...	...	832	832	...	...	...	52	52	...	...	...	884
19	7th Bengal Infantry, Doranda	406	3	...	...	...	13	422	...	...	...	44	44	4	...	...	470
20	Wing, 7th Bengal Infantry, Buxa	399	6	...	1	...	40	406	...	...	...	5	5	...	...	...	411
21	Depôt, 9th Gurkha Rifles, Lansdowne	...	...	3	108	...	15	126	...	5	...	15	20	15	...	...	161
22	10th Bengal Infantry, Benares	2	5	...	...	...	843	850	...	3	...	24	27	19	...	...	896
23	11th Bengal Infantry, Lucknow	745	...	...	...	...	98	843	54	2	...	...	56	6	...	...	905
24	12th Bengal Infantry, Bareilly	1	3	...	...	...	1	5	...	36	2	844	882	9	...	...	896
25	13th Bengal Infantry, Fyzabad, with 70 men detached at Meerut	500	30	...	26	...	246	802	...	7	...	27	34	6	...	...	842
26	16th Bengal Infantry, Cawnpore, with 58 men detached at Fatehgarh	806	15	1	...	...	14	836	2	2	...	35	39	11	...	...	886
27	17th Bengal Infantry, Silchar	...	1	...	...	...	5	6	...	11	...	418	429	15	...	...	450
28	Wing, 17th Bengal Infantry, Dibrugarh, with 74 men detached at Sadiya	...	1	...	...	...	1	2	27	16	...	405	448	...	...	...	450
29	18th Bengal Infantry, Fort William, with 56 men detached at Dum-Dum	...	...	...	1	...	10	11	...	10	...	863	873	3	...	...	887
30	23th Punjab Infantry, Delhi	...	445	213	...	...	3	661	...	214	3	3	220	8	...	...	889
31	Depôt, 39th Garhwal Rifles, Lansdowne	...	...	...	...	181	...	181	...	...	...	...	...	...	...	...	181
32	42nd Gurkha Rifles, Shillong	...	...	...	893	...	1	894	...	...	...	4	4	...	...	...	898
33	43rd Gurkha Rifles, Kohima, with 220 men detached at Manipur	...	...	...	890	...	4	894	...	...	...	5	5	1	...	...	900
34	44th Gurkha Rifles, Manipur	1	...	...	873	...	17	891	...	...	...	5	5	2	...	...	898
35	Bhopal Battalion, Sehore, with 68 men detached at Indore	177	188	88	...	...	251	704	...	24	...	194	218	8	...	...	930
36	5th Madras Infantry, Cawnpore, with 37 men detached at Fatehgarh	23	...	...	...	...	407	430	6	...	...	314	320	61	...	...	811
37	8th Madras Infantry, Barrackpore	33	...	...	...	...	383	416	...	...	...	332	332	61	...	...	809
38	20th Madras Infantry, Meerut	8	...	...	...	...	340	348	...	...	...	383	383	76	...	...	807
39	Wing, 22nd Madras Infantry, Cuttack	11	...	...	...	...	260	271	...	...	...	99	99	8	...	...	378

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	Total.
40	7th Bombay Infantry, Jubbulpore	65	24	8	...	...	370	467	...	2	...	263	265	14	...	3	749
41	12th Bombay Infantry, Saugor	...	45	...	...	...	501	546	...	189	2	6	197	10	...	10	763
42	14th Bombay Infantry, Bareilly	2	31	...	...	...	613	646	...	2	...	99	101	10	...	...	757
43	Depôt, 1-2nd Gurkha Rifles, Dehra Dun	...	...	...	226	...	...	226	...	...	...	...	...	...	...	...	226
44	Depôt, 2-2nd Gurkha Rifles, Dehra Dun	...	...	...	201	...	...	201	...	...	...	...	...	...	...	...	201
45	Depôt, 1-3rd Gurkha Rifles, Almora, with 39 men detached at Ranikhet	...	...	...	234	...	3	237	...	...	...	...	...	...	...	...	237
46	2-3rd Gurkha Rifles, Lansdowne, with 166 men detached at Naini Tal and Almora	...	...	...	896	...	1	897	...	...	...	...	...	...	...	...	897
47	No. 5 Bombay Mountain Battery, Dehra Dun	...	123	4	...	...	3	130	...	135	...	...	135	...	...	...	265
48	Drivers, No. 9 Mountain Battery, Royal Artillery, Darjeeling	...	30	...	...	...	30	60	...	44	...	45	89	...	...	...	149
49	6th Bengal Cavalry, Jullundur	46	231	22	...	...	156	455	...	16	3	146	165	...	...	...	620
50	9th Bengal Lancers, Rawalpindi	1	228	68	...	...	11	308	...	226	79	5	310	...	...	...	618
51	10th Bengal Lancers, Jhelum	...	238	118	...	...	32	388	...	154	76	5	235	...	...	...	623
52	11th Bengal Lancers, Nowshera	1	261	128	...	...	52	442	...	99	60	4	163	1	...	...	606
53	12th Bengal Cavalry, Sialkot, with 40 men detached at Jhelum	...	334	97	...	...	23	454	...	157	3	4	164	...	...	...	618
54	13th Bengal Lancers, Peshawar, with 46 men detached at Fort Jamrud	114	204	17	...	...	40	375	...	150	70	15	235	...	...	...	610
55	16th Bengal Cavalry, Mooltan	1	303	148	...	...	145	597	...	8	...	5	13	...	...	...	610
56	17th Bengal Cavalry, Umballa	...	...	...	...	...	2	2	...	307	305	10	622	...	...	...	624
57	Depôt, 18th Bengal Lancers, Ferozepore	...	36	...	...	...	1	27	...	91	...	2	93	...	...	...	120
58	19th Bengal Lancers, Meean Meer	1	183	36	1	...	8	229	...	76	131	16	223	...	...	...	452
59	Wing, 19 Bengal Lancers, Ferozepore	...	33	35	...	...	3	71	...	95	...	...	95	...	...	...	166
60	1st Punjab Cavalry, Edwardesabad, with 123 men detached at Jandola, Miran Shah, Datta Khel, Boya, Idak, Saidgi, and Sarwekai	...	...	72	...	...	220	292	...	16	108	184	308	...	...	...	600
61	2nd Punjab Cavalry, Dera Ismail Khan, with 204 men detached at Wana, Khajuri Kach, Tank, Jatta, and Draband.	62	222	...	...	...	15	299	...	114	110	91	315	...	...	...	614
62	3rd Punjab Cavalry, Kohat, with 145 men detached at Parachinar, Bahadur Khel, and Edwardesabad	12	217	48	...	...	31	308	...	93	75	141	309	...	...	...	617
63	5th Punjab Cavalry, Dera Ghazi Khan, with 18 men detached at Mangrota	5	222	67	...	...	10	304	...	146	74	91	311	...	...	...	615
64	8th Bengal Infantry, Peshawar, with 123 men detached at Fort Jamrud and Hari Singh-Ka-Burj	764	10	4	...	...	78	856	...	6	...	28	34	...	...	...	890
65	Depôt, 14th Sikh Infantry, Ferozepore	...	179	...	1	...	...	180	...	3	...	...	3	2	...	...	185
66	Depôt, 15th Sikh Infantry, Ferozepore	...	296	1	4	...	7	308	...	6	...	8	14	4	...	...	326
67	19th Punjab Infantry, Mooltan	...	447	2	...	...	...	449	...	224	218	2	444	...	...	...	893
68	20th Punjab Infantry, Peshawar, with 29 men detached at Fort Jamrud.	...	213	221	...	...	1	435	...	72	372	...	444	...	...	...	879
69	Depôt, 21st Punjab Infantry, Sialkot	...	43	24	...	...	3	70	...	33	26	6	65	1	...	...	136
70	22nd Punjab Infantry, Jhelum, with 87 men detached at Rawalpindi and Murree	...	456	4	1	...	6	467	...	329	110	1	440	1	...	...	908
71	23rd Pioneers, Umballa, with 165 men detached at Amritsar, Ludhiana, Sialkot, and Jhelum	...	836	1	...	...	41	878	...	13	...	6	19	2	...	...	899
72	Depôt, 24th Punjab Infantry, Mooltan	...	57	16	...	...	1	74	...	28	33	17	78	...	...	...	152
73	25th Punjab Infantry, Rawalpindi	...	330	187	...	...	31	548	...	228	103	7	338	4	...	...	890
74	26th Punjab Infantry, Peshawar, with 226 men detached at Amritsar, Ludhiana, Meean Meer, and Hari Singh-ka-Burj	...	438	109	...	...	5	552	...	22	278	18	318	3	...	...	873
75	Depôt, 27th Punjab Infantry, Rawalpindi	...	43	28	...	...	3	74	...	44	41	1	86	...	...	...	160

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

B.—Race Composition, and Location of detachments.

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Musalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	Total.
76	28th Punjab Infantry, Rawalpindi, with 80 men detached at Murree and Attock	...	331	106	...	...	2	439	...	130	316	...	446	...	...	...	885
77	Depôt, 30th Punjab Infantry, Peshawar	...	63	46	...	1	5	115	...	63	...	6	69	...	...	...	184
78	Depôt, 31st Punjab Infantry, Peshawar	...	110	42	...	...	5	157	...	64	3	14	81	4	...	...	242
79	32nd Pioneers, Mecan Meer	...	869	...	...	...	1	870	...	11	...	...	11	...	...	...	881
80	33rd Punjab Infantry, Datta Khel, with 17 men detached at Janikhel Depôt	...	1	...	...	...	...	1	...	894	...	3	897	...	...	...	898
81	Depôt, 34th Pioneers, Jhelum	...	178	...	...	...	...	178	...	2	...	...	2	...	...	...	180
82	35th Sikh Infantry, Peshawar	...	866	...	...	...	3	869	...	4	...	...	4	...	...	...	873
83	36th Sikh Infantry, Fort Lockhart, with 432 men detached at Parachinar, Fort Cavagnari, Dar, Sultaekot, Thal, and Kohat	...	821	1	...	...	...	822	...	17	...	...	17	...	...	...	839
84	37th Dogras, Peshawar, with 253 men detached at Gilgit and Sialkot	...	2	890	...	...	...	892	...	3	...	...	3	1	...	...	896
85	38th Dogras, Nowshera, with 28 men detached at Cherat	...	2	882	...	...	7	891	...	6	...	3	9	7	...	...	907
86	40th Pathans, Rawalpindi, with 24 men detached at Attock	...	2	...	...	...	4	6	...	6	824	2	832	...	...	...	838
87	Depôt, 45th Sikh Infantry, Jullundur	...	174	...	...	...	5	179	...	10	...	13	23	...	...	...	202
88	1st Punjab Infantry, Datta Khel, with 213 men detached at Edwardesabad, Boya, Idak, and Saidgi	...	207	98	...	...	2	307	...	224	370	...	594	...	...	...	901
89	Depôt, 2nd Punjab Infantry, Abbottabad	...	59	20	...	...	2	81	...	84	16	...	100	...	...	...	181
90	4th Punjab Infantry, Wana, with 177 men detached at Dera Ismail Khan	5	222	211	...	...	12	450	...	236	200	21	457	...	...	...	907
91	5th Punjab Infantry, Dera Ismail Khan, with 12 men detached at Bahadur Khel	...	353	105	...	...	11	469	...	136	284	2	422	...	...	...	891
92	6th Punjab Infantry, Dera Ghazi Khan, with 52 men detached at Khajuri Kach, Mangrota, Tank, Jatta, and Draband	8	229	203	...	...	8	448	...	154	293	...	447	...	...	...	895
93	1st Sikh Infantry, Datta Khel, with 121 men detached at Edwardesabad	...	446	108	...	...	3	557	...	124	212	4	340	...	...	...	897
94	2nd Sikh Infantry, Kohat, with 18 men detached at Mangrota	...	132	242	...	...	...	374	...	144	28	2	174	...	...	...	548
95	Wing, 2nd Sikh Infantry, Dera Ismail Khan, with 312 men detached at Khajuri Kach, Tank, Jatta, and Draband	...	86	93	...	...	...	179	...	84	77	...	161	...	...	...	340
96	3rd Sikh Infantry, Kohat, with 19 men detached at Janikhel and Bahadur Khel	...	442	104	...	...	3	549	...	121	209	14	344	...	...	...	893
97	4th Sikh Infantry, Sarwekai, with 177 men detached at Jandola	...	450	112	...	...	3	565	...	229	102	3	334	...	...	...	899
98	Corps of Guides, Mardan	...	402	147	106	...	67	722	...	240	373	11	624	...	...	...	1,346
99	6th Madras Infantry, Edwardesabad, with 10 men detached at Jani Khel	12	...	...	...	...	463	475	...	...	...	237	237	67	...	...	779
100	13th Bombay Infantry, Ferozepore	7	22	...	...	...	514	543	...	205	1	13	219	4	...	...	766
101	1-1st Gurkha Rifles, Dharmsala, with 138 men detached at Kangra and Simla	...	1	1	888	1	...	891	...	...	...	...	...	4	...	...	895
102	Depôt, 2-1st Gurkha Rifles, Dharmsala, with 8 men detached at Kangra	...	1	1	308	...	1	311	...	...	...	...	...	...	...	...	311
103	1-4th Gurkha Rifles, Bakloh	...	1	2	856	...	...	859	...	...	...	...	...	...	...	...	859
104	2-4th Gurkha Rifles, Bakloh	...	...	...	895	...	3	898	...	...	...	...	...	...	...	...	898
105	1-5th Gurkha Rifles, Abbottabad, with 36 men detached at Parachinar	...	...	...	923	...	3	926	...	...	...	...	...	...	...	...	926
106	2-5th Gurkha Rifles, Abbottabad	...	...	...	903	...	4	907	...	...	...	1	1	...	...	...	908
107	No. 1 Kohat Mountain Battery, Dera Ismail Khan	...	102	7	...	...	23	132	...	134	...	...	134	...	...	...	266
108	No. 2 Derajat Mountain Battery, Kohat, with 48 men detached at Parachinar	4	142	...	...	...	6	152	...	134	...	4	138	...	...	...	290
109	No. 3 Peshawar Mountain Battery, Edwardesabad	...	128	2	...	...	2	132	...	134	...	...	134	...	...	...	266

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussalmans.	Trans-Indus Pathans.	Other Mussalmans.	Total Mussalmans.	Native Christians.	Burmans.	Jews.	Total.
110	No. 4 Hazara Mountain Battery, Abbottabad	...	116	...	...	...	2	118	...	131	...	1	132	...	...	...	250
111	Punjab Garrison Battery, Kohat	...	32	...	...	...	3	35	...	34	...	...	34	...	...	...	69
112	No. 6 Bombay Mountain Battery, Datta Khel, with 61 men detached at Wana	4	121	...	...	...	21	146	...	156	...	2	158	...	...	...	304
113	Drivers, No. 1 Mountain Battery, Royal Artillery, Khyragully	...	30	6	...	...	39	75	...	82	...	4	86	...	...	...	161
114	Drivers, No. 3 Mountain Battery, Royal Artillery, Jutogh	...	53	...	...	...	22	75	...	71	...	...	71	...	...	...	146
115	Drivers, No. 5 Mountain Battery, Royal Artillery, Rawalpindi	...	29	11	...	...	35	75	...	83	...	1	84	...	...	...	159
116	Drivers, No. 7 Mountain Battery, Royal Artillery, Baragully	5	73	...	...	...	3	81	...	81	...	...	81	...	...	...	162
117	Drivers, No. 8 Mountain Battery, Royal Artillery, Jutogh	...	30	3	...	...	20	53	...	129	2	...	131	...	...	...	184
118	Governor's Body-Guard, Madras	4	...	...	...	...	3	7	...	...	5	54	59	5	...	...	71
119	1st Madras Lancers, Bellary	35	...	...	...	...	65	100	...	...	...	465	465	26	...	...	591
120	2nd Madras Lancers, Bangalore	38	...	...	...	...	96	134	...	...	...	431	431	24	...	...	589
121	3rd Madras Lancers, Secunderabad	56	...	...	...	...	44	100	...	1	52	389	442	25	...	...	567
122	Madras Sappers and Miners, Bangalore, with 389 men detached at Maymyo, Secunderabad, and Mandalay	5	...	...	...	...	1,004	1,009	...	...	...	66	66	217	169	...	1,461
123	1st Madras Pioneers, Bangalore	2	...	...	...	...	551	553	...	...	...	171	171	87	...	...	811
124	3rd Madras Infantry, Secunderabad	9	...	...	...	...	389	398	...	...	...	344	344	75	...	...	817
125	4th Madras Infantry, Ootacamund, with 108 men detached at Trichinopoly	...	...	...	...	...	539	539	...	2	...	177	179	100	...	...	818
126	9th Madras Infantry, Bellary	9	...	...	...	...	436	445	...	...	...	289	289	78	...	...	812
127	1st Burma Rifles (10th Madras Infantry), Keng Tung, with 191 men detached at Maymyo	...	...	5	734	...	54	793	...	...	...	3	3	1	...	...	797
128	11th Madras Infantry, Secunderabad	17	...	...	...	...	473	490	...	...	...	267	267	70	...	...	827
129	2nd Burma Battalion (12th Madras Infantry), Bhamo, with 46 men detached at Thabeitkyin	...	415	2	...	...	1	418	...	233	178	1	412	1	...	...	831
130	13th Madras Infantry, Thayetmyo, with 130 men detached at Mindat Sakan	30	...	...	...	...	341	371	...	...	...	364	364	70	...	...	805
131	14th Madras Infantry, St. Thomas' Mount	5	...	...	...	...	517	522	...	...	...	216	216	77	...	...	815
132	15th Madras Infantry, Rangoon, with 302 men detached at Port Blair	13	...	...	...	...	303	316	...	...	...	440	440	61	...	...	817
133	16th Madras Infantry, Rangoon	11	...	...	...	...	406	417	...	...	...	308	308	59	...	...	784
134	17th Madras Infantry, Bangalore	15	...	...	...	...	406	421	...	...	...	300	300	83	...	...	804
135	19th Madras Infantry, Secunderabad	27	...	...	...	...	382	409	...	...	...	312	312	67	...	...	788
136	Depôt, 21st Madras Pioneers, Belgam	4	...	...	...	...	87	91	...	...	...	33	33	28	...	...	152
137	Head-Quarters, 22nd Madras Infantry, Berhamper	...	...	...	...	...	141	141	...	...	...	229	229	74	...	...	444
138	23rd Madras Infantry, Trichinopoly, with 37 men detached at Ootacamund	8	...	...	...	...	383	391	...	3	...	362	365	61	...	...	817
139	24th Madras Infantry, Quilon, with 167 men detached at Trichoor and Trivandrum	6	...	...	...	...	342	348	...	...	...	356	356	89	...	...	793
140	25th Madras Infantry, Cannanore	15	...	...	...	...	296	311	...	...	...	416	416	67	...	...	794
141	26th Madras Infantry, Belgam	10	...	...	...	...	484	494	...	...	...	222	222	83	...	...	799
142	27th Madras Infantry, Moulmein	16	...	...	...	...	496	512	...	...	...	230	230	58	...	...	800
143	28th Madras Infantry, Madras	...	...	...	...	...	439	439	...	...	...	299	299	77	...	...	815
144	7th Burma Battalion (29th Madras Infantry), Fort Stedman, with 241 men detached at Thamakan, Toungyi, Bampon, and Loikaw	94	293	...	1	...	99	487	...	292	4	...	296	33	...	...	816
145	5th Burma Battalion (30th Madras Infantry), Myingyan	65	409	...	...	...	142	616	...	202	...	3	205	...	...	...	821

TABLE XXXIX—*continued.*

STATISTICS OF REGIMENTS.

B.—Race Composition, and Location of Detachments.

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	Total.
146	6th Burma Battalion (31st Madras Infantry), Meiktila	11	191	195	3	...	45	445	...	306	...	45	351	25	...	...	821
147	4th Burma Battalion (32nd Madras Infantry), Mandalay	...	373	20	...	...	4	397	...	368	19	22	409	32	...	...	838
148	3rd Burma Battalion (33rd Madras Infantry), Mandalay	...	499	...	1	...	...	500	1	214	110	...	325	...	...	...	825
149	No. 7 Bengal Mountain Battery, Bhamo	...	95	...	...	...	15	110	...	110	...	...	110	...	...	...	220
150	Drivers, No. 6 Mountain Battery, Royal Artillery, Mandalay	1	68	1	...	...	4	74	...	73	...	...	73	...	...	...	147
151	Governor's Body-Guard, Poona	8	25	...	...	...	4	37	...	...	...	31	31	...	...	...	68
152	1st Bombay Lancers, Neemuch, with 109 men detached at Nasirabad	...	135	...	...	...	280	415	...	4	80	102	186	9	...	...	610
153	2nd Bombay Lancers, Poona	69	119	...	...	...	202	390	...	1	...	193	194	2	...	1	587
154	3rd Bombay Cavalry, Deesa, with 114 men detached at Rajkot	4	145	...	...	...	199	348	...	1	10	230	241	2	...	...	591
155	4th Bombay Cavalry, Sirur	176	39	...	...	...	47	262	...	141	...	220	361	...	...	...	623
156	5th Bombay Cavalry, Quetta, with 79 men detached at Chaman, Peshin, and Hindubagh	5	163	...	...	...	6	174	...	7	145	296	448	...	...	...	622
157	6th Bombay Cavalry, Jacobabad	...	156	...	...	...	11	167	...	186	146	96	428	...	...	...	595
158	7th Bombay Lancers, Fort Sandeman, with 119 men detached at Mir Ali Khel and Khan Mohamed Kot	...	153	...	...	...	2	155	...	133	265	41	439	...	...	...	594
159	15th Bengal Lancers, Loralai, with 128 men detached at Gumbaz, Marratangi, and Murgha	...	3	...	...	...	2	5	...	218	390	11	619	...	...	...	624
160	Aden Troop, Aden	...	16	...	...	...	...	16	...	6	...	78	84	...	...	...	100
161	Bombay Sappers and Miners, Kirkee, with 160 men detached at Aden	11	79	...	...	...	590	680	...	23	...	91	114	...	...	3	797
162	1st Bombay Infantry, Peshin, with 222 men detached at Shelabagh, Spinwana, Bhuj, Ahmednagar, and Sibi	8	9	...	...	...	494	511	...	179	...	89	268	11	...	...	790
163	2nd Bombay Infantry, Poona, with 45 men detached at Kirkee	4	22	...	...	...	462	488	...	190	...	11	201	16	...	77	782
164	3rd Bombay Infantry, Satara, with 44 men detached at Poona and Satara	32	5	...	...	...	610	647	...	3	1	111	115	10	...	9	781
165	4th Bombay Rifles, Ahmedabad, with 63 men detached at Asirgarh, Poona, and Sadra	134	37	...	...	...	354	525	...	184	2	18	204	2	...	2	733
166	5th Bombay Infantry, Rajkot, with 116 men detached at Sadra and Deesa	1	23	...	...	...	612	636	...	1	...	129	130	5	...	5	776
167	8th Bombay Infantry, Baroda, with 105 men detached at Bombay	13	6	4	...	...	483	506	...	185	1	71	257	6	...	7	776
168	9th Bombay Infantry, Ahmednagar, with 163 men detached at Malegaon and Nasik	5	132	...	...	...	451	588	...	108	...	80	188	11	...	3	790
169	10th Bombay Infantry, Aden, with 92 men detached at Berbera, Zaila, Perim, Bulhar, and Sheikh Othman	13	13	...	...	...	601	627	...	7	...	137	144	10	...	8	789
170	16th Bombay Infantry, Fort Sandeman, with 49 men detached at Sibi and Mir Ali Khel	10	7	...	...	...	655	672	...	5	...	97	102	9	...	3	786
171	17th Bombay Infantry, Bhuj, with 60 men detached at Bombay	42	12	...	1	...	652	707	...	14	...	63	77	5	...	3	792
172	19th Bombay Infantry, Poona	79	1	1	...	...	505	586	...	...	...	179	179	7	...	...	772
173	20th Bombay Infantry, Mhow, with 218 men detached at Indore and Asirgarh	94	44	...	...	...	476	614	...	2	3	149	154	11	...	...	779
174	21st Bombay Infantry, Bombay, with 96 men detached at Bushire, Bagdad, Muscat, and Butcher's Island	...	...	...	...	...	389	389	...	...	...	384	384	18	...	...	791
175	22nd Bombay Infantry, Bombay, with 92 men detached at Thana and Poona	204	1	...	...	...	393	598	...	1	...	169	170	15	...	12	795
176	23rd Bombay Rifles, Nasirabad	126	11	...	...	...	284	421	...	140	...	16	156	15	...	...	592
177	Wing, 23rd Bombay Rifles, Neemuch	...	65	...	...	...	83	148	...	14	...	19	33	...	...	...	181

Serial No.	Corps and their Detachments.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	Total.
178	24th Bombay Infantry, Quetta	1	1	...	2	...	3	7	...	262	272	320	854	...	...	...	861
179	25th Bombay Infantry, Quetta, with 104 men detached at Mir Ali Khel and Sibi	157	2	...	...	...	405	564	...	196	...	13	209	3	...	2	778
180	26th Bombay Infantry, Loralai, with 42 men detached at Murgha and Hindubagh	...	4	...	...	...	4	8	...	31	221	570	822	...	...	...	830
181	1st Baluch Battalion (27th Bombay Infantry), Hyderabad, with 69 men detached at Jacobabad	...	23	2	...	...	20	45	...	189	218	330	737	...	...	...	782
182	Depôt, 28th Bombay Pioneers, Kirkee	8	8	...	...	...	181	197	...	2	11	26	39	4	...	1	241
183	2nd Baluch Battalion (29th Bombay Infantry), Chaman, with 12 men detached at Murgha	...	...	2	...	...	...	2	...	255	367	171	793	...	...	...	795
184	3rd Baluch Battalion (30th Bombay Infantry), Kurrachee, with 39 men detached at Hyderabad and Jacobabad	1	8	1	...	...	7	17	...	298	156	325	779	...	...	...	796
185	Malwa Bhil Corps, Sirdarpore, with 156 men detached at Alirajpore, Barwani, and Jhabwa	2	...	...	...	...	579	581	...	...	...	...	...	...	...	...	581
186	Meywar Bhil Corps, Kherwara, with 223 men detached at Oodeypore and Kotra	9	...	...	...	...	680	689	...	1	...	20	21	...	...	...	710
187	Merwara Battalion, Ajmere, with 68 men detached at Beawar and Sambhar	7	...	...	...	...	678	685	...	...	...	21	21	...	...	...	706
188	Deoli Irregular Force, Deoli, with 123 men detached at Jeypore, Jhalawar, Kota, and Ulwar	126	104	...	...	...	545	775	...	5	...	37	42	...	...	...	817
189	Erinpura Irregular Force, Erinpura, with 138 men detached at Mount Abu, Bikanir, and Pachbadra	118	78	...	...	...	464	660	...	9	...	110	119	...	...	...	779
190	2nd Madras Infantry, Raipur	14	...	...	...	...	254	268	...	...	...	203	203	64	...	...	535
191	Wing, 2nd Madras Infantry, Sambalpur	3	...	...	...	..	163	166	...	...	...	86	86	19	...	...	271
192	7th Madras Infantry, Kamptee, with 86 men detached at Sitabaldi	22	...	...	...	...	296	318	...	...	...	393	393	70	...	...	781
193	Drivers, No. 2 Mountain Battery, Royal Artillery, Quetta	3	25	10	...	...	34	72	...	77	...	...	77	...	...	...	149
194	1st Lancers, Hyderabad Contingent, Mominabad	65	126	...	...	...	68	259	...	2	...	226	228	...	...	...	487
195	2nd Lancers, Hyderabad Contingent, Bolarum	16	156	...	...	...	86	258	...	...	...	229	229	1	...	...	488
196	3rd Lancers, Hyderabad Contingent, Aurangabad	11	174	...	...	...	21	206	...	5	1	290	296	...	...	...	502
197	4th Lancers, Hyderabad Contingent, Hingoli	9	170	...	...	...	27	206	...	3	...	288	291	1	...	...	498
198	1st Infantry, Hyderabad Contingent, Jalna	216	...	...	...	...	248	464	...	...	...	324	324	4	...	...	792
199	Depôt, 2nd Infantry, Hyderabad Contingent, Raichur	25	...	...	...	...	39	64	...	...	...	50	50	9	...	...	123
200	3rd Infantry, Hyderabad Contingent, Ellichpur	213	...	...	...	...	276	489	...	3	...	317	320	6	...	...	815
201	4th Infantry, Hyderabad Contingent, Aurangabad	191	...	...	...	...	328	519	...	2	...	270	272	12	...	...	803
202	5th Infantry, Hyderabad Contingent, Bolarum	140	29	...	...	...	364	533	...	6	...	272	278	7	...	...	818
203	6th Infantry, Hyderabad Contingent, Hingoli	296	...	...	...	...	198	494	...	...	...	314	314	4	...	...	812
204	No. 1 Field Battery, Hyderabad Contingent, Bolarum	18	...	...	...	...	38	56	...	...	...	49	49	...	...	...	105
205	No. 2 Field Battery, Hyderabad Contingent, Aurangabad	21	...	...	...	...	27	48	...	2	...	56	58	1	...	...	107
206	No. 3 Field Battery, Hyderabad Contingent, Hingoli	21	...	...	...	...	37	58	...	...	...	54	54	1	...	...	113
207	No. 4 Field Battery, Hyderabad Contingent, Ellichpur	25	...	...	...	...	31	56	...	...	...	54	54	...	...	...	110

TABLE XXXIX—*concluded.*

STATISTICS OF REGIMENTS.

B.—Race Composition, and Location of Detachments.

Commands.	Rajputs.	Sikhs.	Dogras or other Hill Hindus.	Gurkhas.	Garhwalis.	Other Hindus.	Total Hindus.	Rohillas.	Punjabi Mussulmans.	Trans-Indus Pathans.	Other Mussulmans.	Total Mussulmans.	Native Christians.	Burmans.	Jews.	Total.
Bengal	5,346	2,458	425	4,359	181	8,973	21,742	143	1,469	163	7,654	9,429	407	...	13	31,591
Punjab	1,052	13,378	4,896	4,886	2	2,232	26,446	...	7,116	5,585	1,174	13,875	105	...	...	40,426
Madras	506	2,343	223	739	...	8,987	12,798	1	1,804	368	6,814	8,987	1,753	169	...	23,707
Bombay	1,509	1,674	20	3	...	13,160	16,366	...	3,078	2,288	5,736	11,102	324	...	136	27,928
Hyderabad Contingent	1,267	655	...	...	...	1,788	3,710	...	23	1	2,793	2,817	46	...	...	6,573
INDIA	9,680	20,508	5,564	9,987	183	35,140	81,062	144	13,490	8,405	24,171	46,210	2,635	169	149	130,225

*Death-rate per 1,000 of strength.**

	Bengal.	Punjab.	Madras.	Bombay.	Hyderabad Contingent.	India.
Rajputs	2·76	·50	·12	·70	1·25	1·06
Sikhs	·76	6·18	1·11	·56	·56	2·28
Dogras or other Hill Hindus	·24	2·38	·08	...	...	·75
Gurkhas	3·21	3·17	1·16	...	...	1·89
Garhwalis	·12	...	...	...	...	·03
Other Hindus	3·52	·85	5·53	6·17	2·78	3·57
Total Hindus	10·61	13·08	8·01	7·42	4·58	9·58
Rohillas	·06	...	...	...	...	·01
Punjabi Mussulmans	·48	2·51	·70	1·11	...	1·19
Trans-Indus Pathans	·21	2·32	·08	·77	...	·89
Other Mussulmans	2·30	·61	2·60	1·95	2·78	1·77
Total Mussulmans	3·06	5·44	3·39	3·83	2·78	3·87
Native Christians	·24	·16	·70	·28	...	·29
Burmans	...	...	...	...	...	...
Jews	...	...	...	·07	...	·01

* As far as data are available.

III.—PRISONERS, 1897.

TABLE K.

JAILS by ADMINISTRATIONS.

Jails.	Height above the sea level in feet.*	Authority for height.†
ANDAMANS :—		
Port Blair Convict Settlement	85	S. G.
BURMA :—		
Mergui	14	S. G.
Tavoy	69	,,
Moulmein Central	288	,,
Shwegyin	128	,,
Toungoo	156	,,
Rangoon Central, Europeans	14	,,
,, ,, natives		
Maubin	...	...
Bassein Central	40	S. G.
Insein Central	34	,,
Henzada	44	,,
Myanaung	74	,,
Sandoway	...	...
Kyaukpyu	...	...
Akyab	32	S. G.
Paungdi	...	...
Prome	...	...
Thayetmyo Central	145	S. G.
Taungdwingyi	492	,,
Magwe	...	...
Minbu	...	...
Yamethin	653	S. G.
Meiktila	298	,,
Pagan	...	...
Pakôkku	...	...
Myingyan Central	243	S. G.
Mandalay Central	249	,,
Monywa	...	...
Shwebo	600	M. O.
Bhamo	351	S. G.
Katha	329	,,
Kindat	361	,,
ASSAM :—		
Cachar (Silchar)	104	M. D.
Sibsagar	318	S. G.
Dibrugarh	342	,,
Tezpur	292	,,
Nowgong	208	,,
Gauhati	...	...
Dhubri	158	S. G.
Sylhet	257	M. D.
Shillong	4,987	S. G.
BENGAL :—		
Mymensingh	59	M. D.
Dacca Central	20	,,
Tippera (Comilla)	36	,,
Chittagong	87	,,
Noakhali	43	,,
Backergunge (Barisal)	13	,,
Khulna	...	...
Jessore	33	M. D.
Baraset	...	...
Presidency Central, Europeans	17	S. G.
,, ,, natives		
Alipore Central	...	...
Hooghly	34	S. G.
Burdwan	97	,,
Krishnagar (Nadia)	32	,,
Faridpur	46	M. D.
Pabna	...	...
Murshidabad (Berhampore)	67	M. D.
Rajshahi Central (Rampur Boalia)	70	,,
Bogra	61	,,
Malda	72	,,
Dinajpur	123	,,
Rangpur	123	,,
Jalpaiguri	284	,,
Purneah	120	S. G.
Naya Dumka	489	M. D.
Suri (Birbhum)	...	...
Bankura	298	M. D.
Midnapore Central	149	,,
Balasore	59	S. G.
Cuttack	74	,,
Puri	17	,,
Chaibassa (Singhbhum)	745	,,
Purulia (Manbhum)	...	...
Ranchi (Lohardaga)	2,128	S. G.
Palamau (Daltongunge)	...	...
Hazaribagh Central	1,997	S. G.
Gaya	375	M. D.
Bhagalpur Central	147	S. G.
BENGAL :—*contd.*		
Monghyr	148	S. G.
Darbhanga	167	,,
Champarun (Motihari)	217	,,
Muzaffarpur	179	,,
Patna (Bankipore)	177	,,
Arrah (Shahabad)	191	,,
Chapra (Saran)	181	M. D.
Buxar Central	204	S. G.
Darjeeling	7,168	,,
N.-W. P. AND OUDH :—		
Ghazipur	227	S. G.
Azamgarh	256	,,
Gorakhpur	255	,,
Basti	292	,,
Fyzabad	336	,,
Sultanpur	...	...
Rai Bareli	351	S. G.
Partabgarh	311	,,
Jaunpur	263	,,
Benares Central	256	,,
,, District	256	,,
Chunar	...	...
Mirzapur	283	S. G.
Allahabad Central	298	,,
,, District		
Banda	415	,,
Fatehpur	373	,,
Hamirpur	367	,,
Orai (Jalaun)	...	...
Cawnpore	417	S. G.
Unao	412	,,
Lucknow Central	400	,,
,, District		
Barabanki	378	,,
Gonda	...	...
Bahraich	398	S. G.
Kheri	471	,,
Sitapur	449	,,
Hardoi	462	,,
Etawah	498	,,
Mainpuri	511	,,
Etah	550	,,
Fattegarh Central	500	M. O.
,, District		
Shahjahanpur	597	S. G.
Bareilly Central	560	,,
,, District		
Budaon	544	,,
Aligarh	610	,,
Bulandshahr	727	,,
Moradabad	655	,,
Bijnor	772	,,
Dehra Dun	2,229	,,
Saharanpur	903	,,
Muzaffarnagar	790	,,
Meerut	739	,,
Muttra	576	,,
Agra Central	554	,,
,, District		
Jhansi	860	,,
Almora	5,494	,,
PUNJAB :—		
Delhi	715	S. G.
Rohtak	712	,,
Hissar	...	...
Karnal	809	S. G.
Umballa	902	,,
Ludhiana	806	,,
Hoshiarpur	1,058	,,
Jullundur	900	,,
Ferozepore	645	,,
Amritsar	756	,,
Lahore Central	706	,,
,, District		
,, Female		
Gurdaspur	...	...
Gujranwala	...	...
Chinawan (Central Closed on 20th July 1897)	...	...
Sialkot	829	S. G.
Gujrat	...	...
Jhelum	827	S. G.
Rawalpindi	1,707	,,
Peshawar	1,165	,,
Kohat	1,768	,,
Bannu	1,279	,,
Shahpur	644	,,
Jhang	...	...
Montgomery Central	600	I. B.
Mooltan Central	402	S. G.
PUNJAB :—*contd.*		
Mooltan District	402	S. G.
Dera Ismail Khan	571	,,
Dera Ghazi Khan	395	,,
Simla	7,230	,,
Dharmsala	6,111	,,
Abbottabad	4,152	,,
BOMBAY :—		
Shikarpur	194	S. G.
Sind Gang	...	...
Hyderabad Central	134	I. B.
Kurrachee	28	S. G.
Rajkot	417	,,
Ahmedabad Central	170	,,
Dhulia	842	,,
Nasik	1,914	,,
Yerrowda Central (Poona)	1,951	I. B.
Bijapur District	1,998	S. G.
Deccan Gang	...	...
Dharwar	2,385	S. G.
Thana	24	,,
Bombay Common	20	,,
,, House of Correction		
Ratnagiri	110	M. D.
Karwar	12	S. G.
Aden	26	,,
BERAR AND SECUNDERABAD :—		
Secunderabad	1,732	S. G.
Yeotmahl	1,476	,,
Amraoti Central	1,194	,,
Ellichpur	1,218	,,
Akola Central	920	,,
Basim	1,842	,,
Buldana	2,132	M. D.
CENTRAL PROVINCES :—		
Damoh	1,236	S. G.
Saugor	1,753	,,
Jubbulpore Central	1,306	,,
Narsinghpur	...	...
Mandla	1,487	S. G.
Bilaspur	884	,,
Sambalpur	490	,,
Raipur Central	975	,,
Balaghat (Burha)	...	...
Seoni	2,043	S. G.
Chhindwara	2,236	,,
Hoshangabad	1,030	,,
Nimar (Khandwa)	...	...
Betul	2,189	S. G.
Nagpur Central	1,025	,,
Bhandara	861	,,
Wardha	935	,,
Chanda	658	,,
Sironcha	406	,,
MADRAS :—		
Mangalore	42	S. G.
Cannanore Central	47	,,
Bellary	1,483	,,
Salem Central	919	,,
Coimbatore Central	1,348	M. D.
Palamcottah	129	S. G.
Madura	438	,,
Trichinopoly Central	274	,,
Tanjore	193	,,
Cuddalore	19	,,
Vellore Central	698	,,
Madras Debtors, natives	15	,,
,, Central, Penitentiary, natives		
Madras Central, Penitentiary, Europeans		
Madras Debtors, Europeans		
Nellore	57	,,
Rajamundry Central	112	M. D.
Vizagapatam	14	S. G.
Berhampur	60	,,
Russellkonda	...	...
RAJPUTANA :—		
Ajmere	1,627	S. G.
BALUCHISTAN :—		
Quetta	5,511	S. G.
COORG :—		
Mercara	3,835	S. G.

* These are not the exact heights of the jails themselves above sea-level, but usually those of the survey-marks or of the mercury-surface in barometer-cisterns in the stations in which the jails are situated.

† S. G. = Surveyor-General of India; I. B. = Intelligence Branch of the Quarter-Master-General's Department; M. D. = Meteorological Department M. O. = Medical officers in charge of Station Hospitals in their Sanitary Reports for 1897.

TABLE XL.

RATIOS of ADMINISTRATIONS.

The ratios of admissions and deaths to strength are taken from Table XLII. The actuals will be found in Table XLIII.

	Ratio per 1,000 of the Average Strength.										
	Andamans.	Burma.	Assam.	Bengal.	N.-W. P. and Oudh.	Punjab.	Bombay.	Berar and Secunderabad.	Central Provinces.	Madras.	India.*
I. Average Annual Strength	10,590	13,435	1,233	18,343	35,890	12,785	7,767	1,898	7,401	8,349	118,107
II. Constantly sick-rate of each month—											
January	35·9	27·0	28·6	33·5	45·2	22·7	36·2	15·8	32·5	26·3	34·5
February	35·6	24·6	32·7	34·2	44·2	21·0	35·4	11·5	41·6	26·6	34·4
March	37·8	25·5	33·9	37·0	43·7	20·8	29·5	11·9	43·9	36·5	35·5
April	40·2	26·8	35·0	35·7	45·9	22·0	24·3	12·9	41·8	35·0	35·9
May	54·3	26·5	44·6	31·9	43·6	24·3	21·2	14·6	44·8	32·7	36·0
June	68·4	31·2	58·7	30·5	41·0	23·5	22·8	12·0	52·2	30·8	37·2
July	77·8	34·6	95·0	37·4	44·8	26·2	28·9	11·8	46·2	30·0	41·5
August	62·2	33·8	64·5	40·5	51·1	30·4	31·6	16·6	71·3	28·2	44·4
September	50·4	30·7	66·8	40·0	57·2	40·1	30·4	19·7	84·3	39·0	47·4
October	49·0	27·6	67·5	40·2	64·7	47·6	28·9	21·1	86·9	40·7	50·0
November	48·1	28·8	59·6	38·8	61·5	47·4	27·6	24·3	104·4	35·9	49·2
December	45·5	28·4	43·7	36·1	57·3	43·5	28·7	19·8	111·7	37·3	46·7
Of the year	50·2	28·8	51·9†	36·6	50·1	30·8	28·8	16·9	64·6	33·4	41·2
Including Subsidiary Jails and Lock-ups	...	...	52·0‡	35·8	50·1	30·6	25·9	...	...	30·4	40·3
III. Admission-rate of the year—											
Influenza	...	3·3	...	1·1	23·9	2·4	3·9	·5	...	·5	8·4
Cholera	...	8·0	10·5	5·4	2·3	...	9·1	1·1	6·9	63·6	8·1
Small-pox	...	·3	...	·8	1·9	·5	·8	·5	2·8	·6	1·0
Enteric Fever	...	·3	...	...	·1	·2	·3	...	·5	1·9	·3
Intermittent Fever	879·7	87·5	399·0	309·1	350·7	758·9	268·8	174·9	214·6	133·3	373·5
Remittent Fever	16·4	3·1	4·9	11·4	8·6	5·9	26·4	2·1	6·1	1·3	9·2
Simple Continued Fever	21·2	46·3	·8	66·3	6·0	4·5	3·2	14·2	6·9	54·0	24·5
Tubercle of the lungs	5·3	5·9	3·2	7·6	6·4	5·8	7·1	4·7	5·8	15·3	6·9
Pneumonia	3·5	7·7	6·5	15·3	21·6	17·1	22·7	15·8	19·5	8·4	15·6
Other Respiratory Diseases	74·2	21·1	17·0	25·9	22·7	32·3	34·9	20·5	21·1	37·4	30·3
Dysentery	89·9	58·5	226·3	237·2	87·4	81·7	63·7	29·0	226·7	80·8	114·0
Diarrhœa	44·6	36·3	118·4	99·1	59·1	76·0	65·0	33·7	121·5	15·0	64·6
Spleen Diseases	1·4	...	...	1·5	2·0	1·6	·9	2·6	2·0	·7	1·4
Scurvy	·6	·1	·8	1·6	·3	·9	5·1	5·3	26·1	1·0	2·6
Anæmia and Debility	33·7	5·7	35·7	14·2	70·1	13·5	20·3	34·2	122·6	5·3	39·0
Abscess, Ulcer, and Boil	171·2	92·1	31·6	40·8	97·0	136·1	71·5	47·9	100·4	49·9	92·1
All Causes	1,673·6	595·7	1,028·4	1,045·1	1,011·7	1,335·9	845·8	550·6	1,232·7	830·8	1,044·8
Including Subsidiary Jails and Lock-ups	...	...	1,253·3	1,053·7	1,019·5	1,327·6	806·2	...	...	672·6	1,028·4
IV. Death-rate of the year—											
Cholera	...	5·21	5·68	3·27	1·28	...	5·28	·53	4·19	25·03	3·94
Small-pox	...	·07	...	·11	·20	...	...	...	·14	·36	·12
Enteric Fever	...	·30	...	...	...	...	·13	...	·54	·72	·13
Intermittent Fever	·19	·30	7·30	2·24	1·50	·39	...	·53	·54	·72	1·07
Remittent Fever	2·83	·52	·81	·87	·53	1·02	3·22	·53	1·49	·36	1·08
Simple Continued Fever	...	...	...	·11	...	·08	...	...	·14	...	·03
Tubercle of the lungs	4·53	2·38	...	3·33	2·45	2·11	2·96	1·58	4·46	4·07	2·95
Pneumonia	1·89	1·86	1·62	3·71	4·93	4·30	7·85	4·21	8·38	2·64	4·24
Other Respiratory Diseases	1·23	·45	1·62	·87	1·17	·70	·90	2·63	2·16	·48	1·02
Dysentery	9·35	5·21	9·73	10·47	9·17	2·66	3·22	6·32	64·72	6·47	11·07
Diarrhœa	1·13	1·71	4·06	1·96	3·15	1·17	3·60	1·58	18·65	...	3·17
Hepatic Abscess	...	·15	...	·05	·06	...	...	·53	...	...	·05
Anæmia and Debility	1·13	·52	2·43	·87	4·07	·63	·51	4·21	9·73	·24	2·35
Phagedæna, Slough, and Gangrene	...	...	...	·05	...	...	·13	...	·54	...	·05
All Causes	27·20	24·12	46·23	34·24	35·44	16·35	37·21	34·77	134·98	52·82	38·75
Including Subsidiary Jails and Lock-ups	...	...	48·67	35·04	35·44	16·19	35·38	...	...	47·32	38·43
V. Percentage in 100 admissions—											
Influenza	...	·56	...	·10	2·36	·18	·46	·10	...	·06	·80
Cholera	...	1·35	1·03	·52	·23	...	1·08	·19	·56	7·66	·78
Small-pox	...	·05	...	·07	·18	·02	·09	·10	·23	·07	·10
Enteric Fever	...	·05	...	...	·01	·02	·03	...	·04	·23	·03
Intermittent Fever	52·56	14·68	38·80	29·58	34·66	56·80	31·79	31·77	17·41	16·05	35·75
Remittent Fever	·98	·52	·47	1·10	·85	·44	3·12	·38	·49	·16	·88
Simple Continued Fever	1·26	7·77	·08	6·35	·59	·33	·38	2·58	·50	6·50	2·35
Tubercle of the lungs	·32	·99	·32	·73	·63	·43	·84	·86	·47	1·85	·66
Pneumonia	·21	1·29	·63	1·46	2·13	1·28	2·68	2·87	1·58	1·01	1·49
Other Respiratory Diseases	4·43	3·55	1·66	2·48	2·24	2·42	4·13	3·73	1·71	4·50	2·90
Dysentery	5·37	9·82	22·00	22·70	8·64	6·12	7·54	5·26	18·39	9·73	10·92
Diarrhœa	2·66	6·10	11·51	9·48	5·84	5·69	7·69	6·12	9·85	1·80	6·18
Spleen Diseases	·08	...	...	·14	·19	·12	·11	·48	·16	·09	·13
Scurvy	·03	·02	·08	·15	·02	·06	·61	·96	2·12	·12	·25
Anæmia and Debility	2·01	·95	3·47	1·36	6·93	1·01	2·41	6·22	9·94	·63	3·73
Abscess, Ulcer, and Boil	10·23	15·47	3·08	3·90	9·59	10·19	8·45	8·71	8·14	6·01	8·82
VI. Percentage in 100 deaths—											
Cholera	...	21·6	12·3	9·6	3·6	...	14·2	1·5	3·1	47·4	10·2
Small-pox	...	·3	...	·3	·6	...	...	...	·1	·7	·3
Enteric Fever	...	1·2	...	...	...	...	·3	...	·4	1·4	·3
Intermittent Fever	·7	1·2	15·8	6·5	4·2	2·4	...	1·5	·4	1·4	2·8
Remittent Fever	10·4	2·2	1·8	2·5	1·5	6·2	8·7	1·5	1·1	·7	2·8
Simple Continued Fever	...	...	...	·3	...	·5	...	...	·1	...	·1
Tubercle of the lungs	16·7	9·9	...	9·7	6·9	12·9	8·0	4·5	3·3	7·7	7·6
Pneumonia	6·9	7·7	3·5	10·8	13·9	26·3	21·1	12·1	6·2	5·0	10·9
Other Respiratory Diseases	4·5	1·9	3·5	2·5	3·3	4·3	2·4	7·6	1·6	·9	2·6
Dysentery	34·4	21·6	21·1	30·6	25·9	10·3	8·7	18·2	47·9	12·2	28·6
Diarrhœa	4·2	7·1	8·8	5·7	8·9	7·2	9·7	4·5	13·8	...	8·2
Hepatic Abscess	...	·6	...	·2	·2	...	...	1·5	...	...	·1
Anæmia and Debility	4·2	2·2	5·3	2·5	11·5	3·8	1·4	12·1	7·2	·5	6·1
Phagedæna, Slough, and Gangrene	...	...	...	·2	...	...	·3	...	·4	...	·1

* Including Ajmere, Quetta, and Mercara. For complete detail of diseases see Table LIII.
† Including subsidiary jails.
‡ Lock-ups only.

TABLE XLI.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XLII. The actuals will be found in Table XLIII.

	Ratio per 1,000 of the Average Strength.												
	I Burma Coast and Bay Islands.	II Burma Inland.	III Assam.	IV Bengal and Orissa.	V Gangetic Plain and Chutia Nagpur.	VI Upper Sub-Himalayan.	VII N.-W. Frontier, Indus Valley, and N. W. Rajputana.	VIII S. E. Rajputana, Central India, and Gujarat.	IX Deccan.	X Western Coast.	XI Southern India.	XII Hills.	India.*
I.—Average Annual Strength	19,414	4,611	1,193	11,019	32,047	14,764	6,712	5,136	12,598	2,406	7,555	603	118,107
II.—Constantly sick-rate of each month—													
January	33·5	20·0	29·5	37·5	41·8	34·1	31·3	31·5	27·1	51·3	25·6	19·9	34·5
February	31·4	21·1	33·7	36·9	43·8	30·0	27·5	26·3	32·4	55·5	24·7	25·8	34·4
March	33·0	22·0	34·1	38·5	43·9	30·7	22·8	27·2	33·9	42·7	35·5	32·3	35·5
April	34·6	24·3	34·6	35·8	46·4	31·6	23·5	25·7	32·3	30·9	34·7	37·2	35·9
May	42·4	22·7	44·6	32·7	44·3	28·6	24·1	28·8	34·5	23·6	32·8	27·5	36·0
June	52·6	24·8	58·3	31·3	41·6	25·6	25·0	30·8	38·9	27·4	30·8	29·2	37·2
July	61·1	23·7	96·5	38·0	46·4	29·4	26·7	34·3	37·7	31·6	29·5	28·4	41·5
August	51·8	24·3	64·8	39·9	53·3	34·5	30·8	33·4	53·1	44·2	27·0	30·6	44·4
September	42·9	25·0	67·3	39·2	58·2	41·8	38·8	40·5	60·8	34·3	39·8	23·2	47·4
October	40·8	22·0	68·9	37·5	60·8	53·6	42·1	59·8	60·7	29·8	42·2	32·9	50·0
November	40·7	23·6	61·9	39·0	55·1	46·5	52·6	67·5	70·6	26·6	37·0	26·8	49·2
December	38·8	24·5	45·4	37·6	50·2	45·9	46·1	64·1	72·2	24·4	39·1	27·7	46·7
Of the year	41·8	23·2	52·8	37·2	48·9	36·0	33·2	39·3	47·4	34·1	33·5	28·2	41·2
III.—Admission-rate of the year—													
Influenza	...	9·8	...	1·1	25·4	5·6	4·5	...	·1	...	·5	...	8·4
Cholera	3·8	7·4	10·9	2·4	4·8	·1	...	·2	4·8	27·8	69·4	6·6	8·1
Small-pox	·2	·2	...	·1	2·2	·9	1·0	...	1·7	·4	·5	...	1·0
Enteric Fever	·2	·2	...	...	·1	·2	·6	...	·3	6·2	·1	...	·3
Intermittent Fever	512·9	115·6	403·2	267·8	319·5	638·7	638·3	327·1	232·3	151·7	144·4	278·6	373·5
Remittent Fever	10·0	4·8	5·0	14·4	9·7	6·2	7·7	·6	4·2	75·6	·7	10·0	9·2
Simple Continued Fever	38·8	20·2	·8	68·9	18·9	8·4	2·8	·4	6·3	15·0	54·8	23·2	24·5
Tubercle of the lungs	5·1	7·8	3·4	8·4	6·6	6·8	2·7	8·6	4·8	9·1	16·5	8·3	6·9
Pneumonia	5·5	7·2	6·7	19·9	16·1	24·7	29·5	22·0	14·9	7·1	8·5	21·6	15·6
Other Respiratory Diseases	51·7	14·3	17·6	24·8	24·2	25·9	35·8	30·4	22·1	39·9	36·1	26·5	30·3
Dysentery	74·4	63·8	225·5	279·6	114·8	77·1	56·8	73·4	151·2	79·6	83·5	126·6	114·6
Diarrhœa	40·2	39·6	114·6	89·6	74·6	58·2	64·8	60·6	93·6	72·7	16·4	155·9	64·6
Spleen Diseases	·8	...	...	2·2	1·2	3·6	·4	·2	1·9	2·1	·1	...	1·4
Scurvy	·4	...	·8	2·5	·3	·5	2·1	·2	17·2	7·5	5·2	1·7	2·6
Anæmia and Debility	20·3	8·5	36·9	13·1	73·8	15·9	27·9	21·6	79·5	17·9	5·2	5·6	39·0
Abscess, Ulcer, and Boil	147·6	40·3	32·7	35·9	88·1	116·6	125·4	73·7	87·9	24·5	52·6	116·1	92·1
All Causes	1,214·1	467·6	1,032·7	1,035·9	1,034·2	1,189·4	1,181·6	874·6	1,029·7	767·7	854·1	1,033·2	1,044·8
IV.—Death-rate of the year—													
Cholera	2·27	5·64	5·87	1·18	2·90	...	...	...	2·78	16·63	27·00	4·98	3·94
Small-pox	·05	...	...	...	·28	...	...	...	·08	·42	·26	...	·12
Enteric Fever	·15	·22	...	...	...	...	·15	...	·32	2·08	·13	...	·13
Intermittent Fever	·21	·43	7·54	1·54	2·03	·75	·60	·19	·40	...	·79	3·32	1·07
Remittent Fever	1·60	1·30	·84	·73	·75	·67	1·19	...	1·03	8·73	·40	3·32	1·08
Simple Continued Fever	...	...	...	·18	...	·07	...	...	·08	...	...	...	·03
Tubercle of the lungs	3·40	3·04	...	2·90	2·80	2·51	1·04	3·50	3·26	4·16	4·10	4·98	2·95
Pneumonia	1·49	3·47	1·68	4·36	4·43	5·15	9·39	4·09	6·19	1·66	2·78	1·66	4·24
Other Respiratory Diseases	·93	·22	1·68	1·09	·87	1·15	·74	·78	1·83	2·49	·40	1·66	1·02
Dysentery	7·78	3·90	10·06	9·62	10·42	4·00	2·09	8·76	39·53	6·65	6·88	3·32	11·07
Diarrhœa	1·29	2·17	4·19	1·27	3·28	1·76	·74	2·73	11·67	9·14	...	1·66	3·17
Hepatic Abscess	·10	...	...	·09	·03	·07	...	...	·08	...	...	...	·05
Anæmia and Debility	·88	·43	2·51	·54	4·68	·54	1·34	...	6·43	...	·26	...	2·35
Phagedæna, Slough, and Gangrene	...	...	...	...	·03	...	...	...	·40	...	...	...	·05
All Causes	25·34	26·02	47·78	29·13	40·44	20·73	22·65	23·95	88·43	70·66	54·14	28·19	38·75
V.—Percentage in 100 admissions—													
Influenza	...	2·09	...	·11	2·45	·47	·38	...	·01	...	·06	...	·80
Cholera	·31	1·58	1·06	·23	·47	·01	...	·02	·46	3·63	8·12	·64	·78
Small-pox	·01	·05	..	·01	·22	·07	·09	...	·17	·05	·06	...	·10
Enteric Fever	·01	·05	...	...	·01	·02	·05	...	·03	·81	·02	...	·03
Intermittent Fever	42·25	24·72	39·04	25·85	30·90	53·70	54·04	37·42	22·56	19·76	16·91	26·97	35·75
Remittent Fever	·82	1·02	·49	1·39	·94	·52	·66	·07	·41	9·85	·08	·96	·88
Simple Continued Fever	3·19	4·31	·08	6·65	1·83	·71	·24	·04	·61	1·95	6·42	2·25	2·35
Tubercle of the lungs	·42	1·67	·32	·81	·03	·38	·23	·98	·47	1·19	1·94	·80	·66
Pneumonia	·45	1·53	·65	1·92	1·56	2·08	2·50	2·52	1·45	·92	·99	2·09	1·49
Other Respiratory Diseases	4·26	3·06	1·70	2·39	2·34	2·18	3·03	3·48	2·14	5·20	4·23	2·57	2·90
Dysentery	6·13	13·64	21·83	26·09	11·10	6·49	4·81	8·40	14·69	10·29	9·78	12·20	10·92
Diarrhœa	3·31	8·35	11·04	8·65	7·15	4·99	5·49	6·93	9·03	9·47	1·92	15·09	6·18
Spleen Diseases	·06	...	...	·21	·12	·30	·04	·02	·19	·27	·02	...	·13
Scurvy	·03	...	·08	·24	·03	·05	·18	·02	1·67	·97	·09	·16	·25
Anæmia and Debility	1·67	1·81	3·57	1·26	7·13	1·34	2·36	2·41	7·72	2·33	·60	·48	3·73
Abscess, Ulcer, and Boil	12·16	8·63	3·17	3·47	8·52	9·81	10·62	8·44	8·53	3·19	6·09	11·24	8·82
VI.—Percentage in 100 deaths—													
Cholera	8·9	21·7	12·3	4·0	7·2	...	...	...	3·1	23·5	49·9	17·6	10·2
Small-pox	·2	...	...	...	·7	...	...	...	·1	·6	·5	...	·3
Enteric Fever	·6	·8	...	...	...	...	·7	...	·4	2·9	·2	...	·3
Intermittent Fever	·8	1·7	15·8	5·3	5·0	3·6	2·6	·8	·4	...	1·5	11·8	2·8
Remittent Fever	6·3	5·0	1·8	2·5	1·9	3·3	5·3	...	1·2	12·4	·7	11·8	2·8
Simple Continued Fever	...	...	...	·6	...	·3	...	...	·1	...	...	...	·1
Tubercle of the lungs	13·4	11·7	...	10·0	6·9	12·1	4·6	14·6	3·7	5·9	7·6	17·6	7·6
Pneumonia	5·9	13·3	3·5	15·0	11·0	24·8	41·4	17·1	7·0	2·4	5·1	5·9	10·9
Other Respiratory Diseases	3·7	·8	3·5	3·7	2·2	5·6	3·3	3·3	2·1	3·5	·7	5·9	2·6
Dysentery	30·7	15·0	21·1	33·0	25·8	19·3	9·2	36·6	44·7	9·4	12·7	11·8	28·6
Diarrhœa	5·1	8·3	8·8	4·4	8·1	8·5	3·3	11·4	13·2	12·9	...	5·9	8·2
Hepatic Abscess	·4	...	...	·3	·1	·3	...	...	·1	...	...	...	·1
Anæmia and Debility	3·5	1·7	5·3	1·9	11·6	2·6	5·9	...	7·3	...	·5	...	6·1
Phagedæna, Slough, and Gangrene	...	...	...	...	·1	...	...	...	·0	...	...	...	·1

*Including Aden. For complete detail of diseases see Table LIII.

TABLE XLII.

RATIOS of JAILS, GROUPS, and ADMINISTRATIONS. For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	2. DEATH-RATE, per 1,000 OF STRENGTH. Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Average constantly sick per 1,000 of strength.
Port Blair .	10,590	...	...	...	...	879·7	16·4	21·2	5·3	3·5	74·2	89·9	44·6	...	1·4	·6	33·7	171·2	...	1,673·6	50·2
		...	...	...	...	·19	2·83	...	4·53	1·89	1·23	9·35	1·13	...	·19	·09	1·13	...	...	27·20	
Mergui. .	31	...	...	...	...	64·5	...	...	...	...	...	...	...	...	...	...	...	32·3	...	709·7	32·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Tavoy . .	74	...	...	...	...	54·1	...	27·0	...	...	...	121·6	67·6	...	...	...	27·0	54·1	...	486·5	27·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Moulmein .	761	...	82·8	...	...	9·2	6·6	78·8	10·5	6·6	19·7	152·4	105·1	2·6	...	...	2·6	176·1	...	871·2	42·0
		...	48·62	...	...	...	1·31	...	6·57	...	...	13·14	3·94	...	...	...	...	...	...	78·84	
Shwegyin .	183	...	16·4	...	...	371·6	...	5·5	...	...	43·7	333·3	158·5	...	...	...	...	174·9	...	1,530·1	76·5
		...	10·93	...	...	5·46	...	...	...	...	...	10·93	...	...	...	...	...	...	...	32·78	
Toungoo .	587	...	6·8	...	...	75·0	...	...	10·2	3·4	5·1	66·4	49·4	...	...	...	...	30·7	...	419·1	13·6
		...	3·41	...	...	...	...	...	5·11	...	...	6·81	...	...	...	...	...	...	...	22·15	
Rangoon, Europeans.	22	...	...	...	...	...	...	318·2	...	...	90·9	181·8	45·5	...	...	...	...	45·5	...	1,272·7	45·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Rangoon, natives.	2,422	...	...	...	·8	43·8	1·7	141·2	4·1	12·8	54·1	21·1	40·9	·8	...	...	1·2	166·4	...	769·2	37·2
		...	...	...	·83	...	...	...	2·48	2·48	...	3·30	2·89	·41	...	...	·83	...	...	22·30	
Maubin .	406	...	...	...	...	2·5	...	22·2	...	12·3	...	17·2	7·4	...	...	...	9·9	86·2	...	280·8	14·8
		...	...	...	...	...	...	...	...	4·93	...	...	...	...	...	...	2·46	...	...	7·39	
Bassein. .	1,267	...	2·4	·8	...	73·4	...	85·2	10·3	4·7	7·9	13·4	7·9	...	...	·8	6·3	131·8	...	619·6	28·4
		...	2·37	...	...	...	...	...	1·58	...	...	·79	·79	...	...	...	...	...	...	9·47	
Insein . .	1,747	...	...	1·1	·6	121·4	3·4	...	2·3	6·3	21·2	38·9	18·9	·6	...	·6	4·0	124·8	...	751·6	38·4
		...	...	·57	·57	·57	...	...	·57	...	1·14	1·72	·57	·57	...	...	1·14	...	...	12·02	
Henzada .	471	...	...	...	...	36·1	8·5	...	...	...	10·6	6·4	4·2	...	...	...	...	14·9	...	280·3	19·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·12	
Myanaung .	78	...	...	...	...	320·5	...	...	...	...	...	51·3	76·9	...	...	...	12·8	141·0	...	935·9	25·6
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Sandoway .	54	...	...	...	...	148·1	...	...	...	...	18·5	...	...	...	...	...	...	37·0	...	388·9	18·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18·52	
Kyaukpyu .	243	...	...	...	...	139·9	...	...	4·1	4·1	16·5	246·9	20·6	...	...	...	...	49·4	...	506·2	16·5
		...	...	...	...	...	...	...	4·12	...	8·23	78·19	4·12	...	...	...	...	...	...	102·88	
Akyab . .	478	...	2·1	...	...	43·9	2·1	...	2·1	18·8	4·2	110·9	12·6	...	...	...	20·9	14·6	...	309·6	14·6
		...	...	...	...	...	...	...	...	2·09	2·09	10·46	...	...	...	...	...	...	...	16·74	
GROUP I.—BURMA COAST AND BAY ISLANDS	19,414	...	3·8	·2	·2	512·9	10·0	38·8	5·1	5·5	51·7	74·4	40·2	·3	·8	·4	20·3	147·6	...	1,214·1	41·8
		...	2·27	·05	·15	·21	1·60	...	3·40	1·49	·93	7·78	1·29	·10	·10	·05	·88	...	...	25·34	
Paungdi .	54	...	55·6	...	...	259·3	...	...	...	...	...	92·6	74·1	...	...	...	...	148·1	...	814·8	18·5
		...	37·04	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37·04	
Prome . .	218	...	22·9	...	...	27·5	...	...	...	...	9·2	27·5	4·6	...	...	...	...	41·3	...	344·0	18·3
		...	18·35	...	...	...	...	...	...	...	...	4·59	...	...	...	...	...	...	...	32·11	
Thayetmyo .	1,015	...	...	...	1·0	138·9	...	4·9	1·0	13·8	26·6	15·8	14·8	...	...	...	3·0	31·5	...	355·7	22·7
		...	...	...	·99	...	...	...	·99	5·91	·99	·99	...	...	...	...	...	...	...	13·79	
Taungdwingyi	75	...	...	...	...	40·0	...	...	...	...	...	53·3	26·7	...	...	...	...	106·7	...	333·3	26·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13·33	
Magwe .	146	...	...	...	...	...	...	34·2	...	...	...	20·5	27·4	...	...	...	...	20·5	...	137·0	6·8
		...	...	...	...	...	...	...	...	...	...	6·85	...	...	...	...	...	...	...	6·85	
Minbu . .	118	...	84·7	...	...	101·7	8·5	...	...	...	...	33·9	25·4	...	...	...	...	203·4	...	974·6	25·4
		...	67·80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	67·80	
Yamethin .	115	...	...	...	...	191·3	...	...	17·4	...	...	78·3	34·8	...	...	...	8·7	60·9	...	495·7	26·1
		...	...	...	...	8·70	...	...	...	...	...	...	...	...	...	...	...	...	...	8·70	
Meiktila .	160	...	6·2	...	...	125·0	...	...	6·2	6·2	6·2	100·0	18·8	...	...	...	...	112·5	...	587·5	25·0
		...	6·25	...	...	...	...	...	...	6·25	...	6·25	...	...	...	...	...	...	...	18·75	
Pagan . .	91	...	...	...	...	44·0	33·0	...	...	...	...	76·9	33·0	...	...	...	...	11·0	...	527·5	33·0
		...	...	...	...	...	...	...	...	...	...	10·99	...	...	...	...	...	...	...	87·91	
Pakôkku .	73	...	27·4	13·7	...	109·6	...	...	...	...	13·7	27·4	123·3	...	...	...	...	41·1	...	438·4	13·7
		...	13·70	...	...	...	...	...	...	...	...	13·70	13·70	...	...	...	...	...	...	68·49	
Myingyan .	1,025	43·9	12·7	...	...	102·4	12·7	...	6·8	...	2·0	20·5	18·5	...	...	...	6·8	21·5	...	323·9	16·6
		...	9·76	...	...	...	1·95	...	4·88	...	...	1·95	·98	...	...	...	...	...	...	19·51	
Mandalay .	1,024	...	...	...	...	108·4	1·0	76·2	18·6	13·7	17·6	138·7	77·1	...	...	...	8·8	19·5	...	592·8	30·3
		...	...	...	...	·98	1·95	...	5·86	6·84	...	1·95	7·81	...	...	...	·98	...	...	29·30	
Monywa .	105	...	...	...	...	38·1	...	9·5	...	...	19·0	28·6	...	...	...	...	19·0	76·2	...	342·9	19·0
		...	...	...	...	...	...	...	...	...	...	9·52	...	...	...	...	...	...	...	9·52	
Shwebo .	159	...	...	...	...	18·9	12·6	25·2	6·3	6·3	18·9	44·0	37·7	...	...	...	37·7	56·6	...	339·6	18·9
		...	...	...	...	...	6·29	...	6·29	...	...	6·29	...	...	...	...	...	...	...	18·87	
Bhamo .	76	...	...	...	...	78·9	...	...	26·3	13·2	...	368·4	78·9	...	...	...	65·8	13·2	...	723·7	39·5
		...	...	...	...	...	...	...	13·16	13·16	...	65·79	...	...	...	...	13·16	...	...	131·58	
Katha . .	81	...	...	...	...	716·0	12·3	...	12·3	24·7	74·1	172·8	222·2	...	...	...	74·1	111·1	...	1,876·5	49·4
		...	...	...	...	...	12·35	...	...	12·35	...	12·35	...	...	...	...	...	...	...	74·06	
Kindat . .	76	...	...	...	...	210·5	13·2	...	26·3	...	52·6	92·1	52·6	...	...	...	...	52·6	...	644·7	26·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
GROUP II.—BURMA INLAND.	4,611	9·8	7·4	·2	·2	115·6	4·8	20·2	7·8	7·2	14·3	63·8	39·0	...	...	...	8·5	40·3	...	467·6	23·2
		...	5·64	...	·22	·43	1·30	...	3·04	3·47	·22	3·90	2·17	...	...	...	·43	...	...	26·02	

* Worked on the aggregates.

TABLE XLII—*continued.*

RATIOS of JAILS, GROUPS, and ADMINISTRATIONS. **For actuals see Table XLIII.**

JAILS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	2. DEATH-RATE, PER 1,000 OF STRENGTH. Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Average constantly sick per 1,000 of strength.
Cachar .	72	...	...	...	...	666·7	...	...	...	...	13·9	402·8	194·4	...	...	...	...	69·4	...	1,555·6	55·6
		...	...	...	...	13·89	...	...	...	...	...	27·78	...	...	...	...	...	...	...	55·56	
Sibsagar .	63	...	...	...	...	412·7	15·9	...	...	...	15·9	206·3	174·6	...	...	...	31·7	31·7	...	1,095·2	31·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15·87	
Dibrugarh .	72	...	27·8	...	...	708·3	...	...	55·6	55·6	...	625·0	166·7	...	...	...	...	55·6	...	2,027·8	69·4
		...	13·89	...	...	...	...	...	...	13·89	...	13·89	...	...	...	...	...	...	...	55·56	
Tezpur .	225	...	...	...	...	337·8	...	...	...	13·3	4·4	35·6	35·6	...	...	...	53·3	62·2	...	684·4	40·0
		...	...	...	...	22·22	...	...	...	4·44	...	...	8·89	...	...	...	13·33	...	...	48·89	
Nowgong .	51	...	...	...	...	941·2	19·6	19·6	...	...	78·4	58·8	39·2	...	...	...	19·6	117·6	...	1,902·0	78·4
		...	...	...	...	19·61	...	...	...	...	...	...	...	...	...	...	...	...	...	19·61	
Gauhati .	148	...	54·1	...	...	432·4	6·8	...	...	6·8	20·3	378·4	270·3	...	...	...	6·8	27·0	...	1,256·8	60·8
		...	27·03	...	...	6·76	6·76	...	...	...	6·76	13·51	...	...	...	...	...	...	...	67·57	
Dhubri .	17	...	117·6	...	...	...	...	...	...	...	...	176·5	411·8	...	...	...	...	...	...	941·2	58·8
		...	58·82	...	...	...	...	...	...	...	...	...	58·82	...	...	...	...	...	...	117·65	
Sylhet . .	545	...	1·8	...	...	308·3	5·5	...	...	...	20·2	205·5	77·1	...	...	1·8	51·4	7·3	...	829·4	53·2
		...	1·83	...	...	1·83	...	...	...	...	1·83	12·84	3·67	...	...	...	...	...	...	44·04	
GROUP III.—ASSAM.	1,193	...	10·9	...	...	403·2	5·0	·8	3·4	6·7	17·6	225·5	114·0	...	...	·8	36·9	32·7	...	1,032·7	52·8
		...	5·87	...	...	7·54	·84	...	...	1·68	1·68	10·06	4·19	...	...	...	2·51	...	...	47·78	
Mymensingh .	367	...	...	...	...	294·3	8·2	10·9	5·4	5·4	19·1	231·6	95·4	...	...	8·2	59·9	73·6	...	1,272·5	40·9
		...	...	...	...	2·72	...	2·72	2·72	2·72	2·72	2·72	...	...	...	...	2·72	...	...	19·07	
Dacca . .	1,094	...	·9	...	...	245·0	·9	97·8	3·7	11·9	5·5	217·6	11·9	...	·9	...	20·1	10·1	...	786·1	37·5
		...	·91	...	...	...	...	...	1·83	·91	·91	1·83	...	...	·91	...	...	...	...	9·14	
Tippera .	182	...	...	...	...	170·3	5·5	340·7	22·0	...	33·0	500·0	65·9	...	5·5	38·5	5·5	44·0	...	1,511·0	44·0
		...	...	...	...	...	...	...	16·48	...	...	16·48	5·49	...	...	...	...	...	...	60·44	
Chittagong .	222	...	4·5	...	...	279·3	4·5	...	4·5	4·5	9·0	220·7	36·0	...	...	...	4·5	36·0	...	653·2	18·0
		...	4·50	...	...	...	...	...	4·50	...	...	9·01	...	...	...	...	...	...	...	27·03	
Noakhali .	93	...	...	...	...	365·6	...	...	...	...	32·3	892·5	215·1	...	...	...	10·8	21·5	...	1,623·7	53·8
		...	...	...	...	...	...	...	...	...	...	43·01	...	...	...	...	...	...	...	43·01	
Backergunge	467	...	2·1	...	...	282·7	...	...	8·6	10·7	38·5	436·8	242·0	...	...	4·3	12·8	32·1	4·3	1,182·0	62·1
		...	...	...	...	4·28	...	...	8·57	4·28	4·28	42·83	8·57	...	...	...	4·28	...	...	87·79	
Khulna .	41	...	...	...	...	97·6	...	122·0	24·4	24·4	24·4	219·5	24·4	...	...	...	...	...	...	707·3	24·4
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jessore .	391	...	...	...	...	373·4	15·3	...	...	102·3	25·6	808·2	10·2	...	...	...	5·1	10·2	...	1,539·6	89·5
		...	...	...	...	...	2·56	...	...	23·02	...	...	...	...	...	...	...	...	...	43·48	
Baraset .	182	...	...	...	...	554·9	49·5	...	5·5	22·0	11·0	675·8	33·0	...	...	27·5	5·5	49·5	...	1,659·3	38·5
		...	...	...	...	...	...	...	...	...	...	5·49	...	...	...	5·49	...	...	...	32·97	
Presidency, Europeans.	29	...	...	...	...	241·4	...	...	34·5	...	...	103·4	206·9	...	...	...	...	69·0	...	1,172·4	34·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Presidency, natives.	1,193	...	...	...	...	119·9	1·7	34·4	15·1	9·2	12·6	158·4	41·9	...	·8	...	3·4	13·4	...	511·3	20·1
		...	...	...	...	1·68	...	...	2·51	2·51	2·51	5·87	1·68	...	...	...	...	...	...	19·28	
Alipore .	1,780	...	2·2	...	...	24·7	8·4	243·3	10·7	23·0	46·6	300·0	71·9	...	10·1	·6	10·1	66·3	...	1,177·5	37·6
		...	·56	...	...	3·37	·56	...	3·93	5·62	...	1·69	...	...	...	...	...	...	...	19·10	
Hooghly .	370	...	...	...	...	181·1	...	...	2·7	18·9	10·8	464·9	475·7	...	...	...	...	2·7	...	1,259·5	81·1
		...	...	...	...	2·70	...	...	...	2·70	...	5·41	...	...	...	...	...	...	...	16·22	
Burdwan .	210	...	...	...	...	138·1	...	28·6	23·8	28·6	19·0	90·5	19·0	4·8	...	...	14·3	4·8	...	485·7	33·3
		...	...	...	...	...	...	...	4·76	4·76	...	9·52	...	4·76	...	...	...	...	...	23·81	
Krishnagar .	218	...	4·6	...	...	114·7	27·5	...	4·6	9·2	32·1	142·2	13·8	...	...	...	9·2	32·1	...	435·8	32·1
		...	4·59	...	...	...	13·76	...	...	4·59	4·59	13·76	...	...	...	...	4·59	...	...	50·46	
Faridpur .	347	...	...	...	...	181·6	23·1	187·3	...	40·3	57·6	576·3	63·4	...	...	17·3	5·8	17·3	...	1,325·6	54·8
		...	...	...	...	2·88	2·88	...	...	17·29	2·88	11·53	2·88	...	...	...	...	...	...	51·87	
Pabna . .	124	...	...	...	...	346·8	24·2	96·8	8·1	8·1	24·2	274·2	322·6	...	...	...	...	104·8	...	1,467·7	40·3
		...	...	...	...	...	...	...	...	8·06	...	8·06	...	...	...	...	...	...	...	16·13	
Murshidabad	227	...	...	4·4	...	352·4	...	...	...	8·8	61·7	171·8	114·5	...	...	...	...	66·1	...	1,061·7	30·8
		...	...	...	...	...	...	...	...	...	4·41	4·41	...	...	...	...	...	...	...	8·81	
Rajshahi .	672	16·4	...	...	...	546·1	75·9	7·4	8·9	8·9	23·8	16·4	44·6	...	...	...	1·5	6·0	...	1,022·3	22·3
		...	...	...	...	...	1·49	...	1·49	...	...	4·46	1·49	...	...	...	...	...	...	11·90	
Bogra . .	94	...	10·6	...	...	872·3	95·7	42·6	21·3	...	53·2	946·8	10·6	...	...	...	...	21·3	...	2,180·9	53·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10·64	
Malda . .	94	...	...	...	...	914·9	10·6	...	10·6	21·3	53·2	223·4	276·6	...	...	...	117·0	106·4	...	2,212·8	74·5
		...	...	...	...	10·64	...	...	10·64	...	10·64	21·28	...	...	...	...	...	...	...	53·19	
Dinajpur .	204	...	9·8	...	...	784·3	39·2	...	4·9	9·8	9·8	421·6	73·5	...	...	...	24·5	53·9	...	1,666·7	58·8
		...	4·90	...	...	4·90	...	...	4·90	...	...	14·71	...	...	...	...	...	...	...	53·92	
Rangpur .	119	...	...	...	...	596·6	...	...	8·4	...	8·4	411·8	176·5	...	...	...	16·8	75·6	...	1,495·8	25·2
		...	...	...	...	8·40	...	...	...	...	...	25·21	...	...	...	...	...	...	...	33·61	

Jails.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Average constantly sick per 1,000 of strength.
Jalpaiguri	76	...	...	...	...	157·9	...	26·3	26·3	13·2	13·2	157·9	105·3	...	...	...	26·3	39·5	...	1,052·6	26·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Purneah	195	...	...	...	...	779·5	41·0	61·5	20·5	35·9	25·6	507·7	97·4	...	...	5·1	5·1	20·5	...	1,717·9	71·8
		...	...	...	...	...	5·13	...	5·13	...	...	20·51	...	...	...	...	...	...	...	30·77	
Naya Dumka	97	...	41·2	...	...	113·4	...	...	...	10·3	...	41·2	10·3	...	...	10·3	82·5	...	...	360·8	10·3
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10·31	...	...	10·31	
Suri	339	...	2·9	...	...	365·8	...	...	8·8	17·7	20·6	188·8	47·2	...	8·8	...	...	38·3	...	905·6	32·4
		...	2·95	...	...	...	...	...	5·90	11·80	...	23·60	2·95	...	5·90	...	...	...	...	59·00	
Bankura	249	...	...	...	...	425·7	12·0	...	16·0	28·1	36·1	192·8	377·5	4·0	...	...	52·2	60·2	...	1,473·9	36·1
		...	...	...	...	4·02	...	...	4·02	4·02	...	36·14	4·02	...	...	...	4·02	...	...	60·24	
Midnapore	844	...	3·6	...	...	303·3	26·1	...	2·4	32·0	17·8	131·5	53·3	...	...	...	7·1	53·3	...	778·4	28·4
		...	2·37	...	...	...	...	...	...	7·11	1·18	14·22	2·37	...	...	...	...	...	...	33·18	
Balasore	111	9·0	9·0	...	...	207·2	...	...	...	9·0	...	171·2	72·1	...	...	...	...	9·0	...	540·5	18·0
		...	9·01	...	...	...	...	...	...	9·01	...	9·01	...	...	...	...	...	...	...	36·04	
Cuttack	284	...	21·1	...	...	390·8	3·5	3·5	14·1	28·2	7·0	162·0	123·2	3·5	...	3·5	3·5	42·3	...	876·8	31·7
		...	14·08	...	...	...	...	3·52	10·56	...	...	14·08	3·52	...	...	...	...	...	...	49·30	
Puri	104	...	...	...	...	28·8	9·6	...	...	9·6	...	28·8	9·6	...	...	...	86·5	38·5	...	365·4	9·6
		...	...	...	...	...	...	...	...	...	...	9·62	...	...	...	...	...	...	...	9·62	
Group IV.—Bengal and Orissa.	11,019	1·1	2·4	·1	...	267·8	14·4	68·9	8·4	19·9	24·8	279·6	89·6	·3	2·2	2·5	13·1	35·9	·2	1,035·9	37·2
		...	1·18	...	...	1·54	·73	·18	2·90	4·36	1·09	9·62	1·27	·09	·27	·09	·54	...	...	29·13	
A.																					
Chaibassa	151	...	...	...	...	337·7	53·0	...	19·9	19·9	33·1	1,039·7	185·4	...	...	...	6·6	13·2	...	1,867·5	86·1
		...	...	...	...	...	...	...	...	...	...	66·23	...	...	...	...	...	...	...	79·47	
Purulia	264	...	15·2	18·9	...	227·3	11·4	...	3·8	22·7	41·7	443·2	212·1	...	...	...	30·3	18·9	...	1,128·8	18·9
		...	11·36	...	...	...	3·79	...	3·79	7·58	3·79	41·67	7·58	...	...	...	...	...	...	83·33	
Ranchi	269	...	55·8	14·9	...	122·7	7·4	...	22·3	3·7	7·4	427·5	301·1	...	...	3·7	18·6	37·2	...	1,163·6	33·5
		...	37·17	3·72	...	...	3·72	...	14·87	...	...	37·17	14·87	...	...	...	...	...	...	130·11	
Palamau	86	...	255·8	...	...	372·1	...	...	11·6	...	23·3	34·9	23·3	...	...	...	...	...	...	767·4	23·3
		...	151·16	...	...	69·77	...	...	11·63	...	...	11·63	11·63	...	...	...	...	...	...	279·07	
Hazaribagh	1,002	...	31·9	...	...	103·8	9·0	231·5	14·0	8·0	17·0	124·8	36·9	...	...	...	3·0	20·0	1·0	695·6	24·0
		...	20·96	...	...	1·00	2·00	...	9·98	2·00	1·00	12·97	1·00	...	...	...	1·00	...	1·00	61·88	
B.																					
Gya	512	...	...	2·0	...	791·0	9·8	29·3	3·9	5·9	66·4	214·8	136·7	...	...	...	5·9	111·3	...	1,671·9	43·0
		...	...	...	...	...	...	...	1·95	1·95	...	5·86	9·77	...	...	...	...	...	...	27·34	
Bhagalpur	1,585	...	...	·6	...	160·3	1·9	71·3	1·9	8·2	28·4	39·1	39·1	...	...	...	13·9	32·8	...	607·6	26·5
		...	...	...	...	1·89	1·26	...	1·26	1·89	...	5·68	1·26	...	...	...	·63	...	...	22·08	
Monghyr	265	...	...	...	...	120·8	...	...	...	7·5	67·9	169·8	309·4	...	...	...	7·5	135·8	...	1,377·4	49·1
		...	...	...	...	...	...	...	...	7·55	...	...	11·32	...	...	...	...	...	...	33·96	
Darbhanga	397	...	...	...	...	103·3	5·0	10·1	7·6	10·1	17·6	133·5	70·5	...	...	2·5	5·0	22·7	...	566·8	22·7
		...	...	...	...	5·04	2·52	...	5·04	7·56	...	7·56	2·52	...	...	2·52	...	...	...	35·26	
Champarun	377	...	...	2·7	...	535·8	18·6	...	8·0	8·0	8·0	427·1	321·0	...	...	...	82·2	111·4	...	1,899·2	76·9
		...	...	...	...	7·96	...	...	2·65	...	...	23·87	2·65	...	...	...	7·96	...	...	47·75	
Muzaffarpur	370	21·6	...	...	...	259·5	13·5	...	2·7	2·7	24·3	121·6	62·2	...	8·1	...	35·1	16·2	...	713·5	29·7
		...	...	...	...	5·41	...	...	...	...	...	13·51	5·41	...	5·41	...	10·81	...	...	43·24	
Patna	333	...	...	...	...	369·4	12·0	...	...	6·0	24·0	126·1	261·3	...	...	...	...	117·1	...	1,309·3	33·0
		...	...	...	...	...	...	...	...	6·01	6·01	3·00	...	...	...	...	...	...	...	21·02	
Arrah	257	...	...	...	...	112·8	...	11·7	3·9	23·3	15·6	54·5	15·6	...	...	...	62·3	7·8	...	443·6	31·1
		...	...	...	...	...	...	...	...	7·78	...	...	...	...	...	...	...	...	...	11·67	
Chapra	267	...	...	3·7	...	292·1	11·2	...	3·7	...	33·7	674·2	265·9	...	...	...	11·2	44·9	...	1,797·8	89·9
		...	...	3·75	...	18·73	3·75	...	...	...	...	33·71	...	...	...	...	3·75	...	...	71·16	
Buxar	1,104	...	...	...	...	1,037·1	...	82·4	6·3	6·3	22·6	27·2	61·6	...	...	...	5·4	48·9	...	1,442·9	33·5
		...	...	...	...	·91	...	...	5·43	2·72	...	1·81	...	...	...	...	...	...	...	13·59	
Ghazipur	590	8·5	...	1·7	...	50·8	...	3·4	3·4	22·0	23·7	10·2	8·5	...	...	...	16·9	79·7	...	405·1	18·6
		...	...	...	...	...	...	...	...	3·39	...	...	1·69	...	...	...	...	1·69	...	15·25	
Azamgarh	557	...	5·4	7·2	...	269·3	3·6	...	3·6	14·4	32·3	82·6	71·8	...	...	...	113·1	93·4	...	1,845·6	150·8
		...	3·59	...	...	...	1·80	...	1·80	1·80	3·59	12·57	5·39	...	...	...	10·77	...	...	95·15	
Gorakhpur	547	...	1·8	3·7	...	270·6	...	...	3·7	29·3	9·1	254·1	12·8	...	...	9·1	195·6	109·7	...	1,192·0	106·0
		...	1·83	1·83	...	...	...	...	...	5·48	...	21·94	...	...	...	...	...	...	...	36·56	
Basti	506	...	...	4·0	...	284·6	...	11·9	4·0	7·9	15·8	77·1	118·6	...	...	...	112·6	90·9	...	922·9	45·5
		...	...	1·98	...	1·98	...	...	...	3·95	...	3·95	3·95	...	...	...	1·98	...	...	29·64	
Fyzabad	746	...	4·0	5·4	...	305·6	1·3	...	2·7	8·0	17·4	72·4	95·2	...	...	1·3	26·8	207·8	...	1,181·0	48·3
		...	4·02	1·34	...	...	...	...	...	4·02	...	9·38	2·68	...	...	...	1·34	...	...	24·13	
Sultanpur	524	...	...	3·8	...	536·3	...	...	...	11·5	3·8	53·4	66·8	...	...	...	68·7	19·1	...	938·9	43·9
		...	...	...	...	...	...	...	...	5·73	...	...	9·54	...	...	...	5·73	...	...	28·63	
Rae Bareli	760	...	6·6	1·3	...	123·7	...	...	3·9	5·3	7·9	21·1	53·9	...	1·3	...	315·8	55·3	...	818·4	50·0
		...	5·26	1·32	...	1·32	...	...	1·32	1·32	...	...	10·53	...	...	...	9·21	...	...	72·37	

TABLE XLII—*continued.*

RATIOS of JAILS, GROUPS, and ADMINISTRATIONS. For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	2. DEATH-RATE, PER 1,000 OF STRENGTH. Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Average constantly sick per 1,000 of strength.
Partabgarh	355	...	...	...	...	157·7	2·8	2·8	8·5	8·5	39·4	78·9	28·2	2·8	...	...	123·9	56·3	...	743·7	25·4
		...	...	...	...	...	...	...	2·82	...	...	14·08	...	...	...	...	5·63	...	...	22·54	
Jaunpur	403	...	7·4	9·9	...	305·2	2·5	2·5	2·5	9·9	17·4	153·8	193·5	...	...	...	29·8	79·4	...	990·1	32·3
		...	7·44	4·96	...	...	...	...	...	4·96	...	12·41	32·26	...	...	...	...	...	...	62·03	
Benares Central.	2,553	...	...	...	...	222·5	...	...	5·9	6·3	18·8	77·9	16·1	...	...	...	23·1	128·1	...	729·7	44·3
		...	...	...	...	2·74	...	...	3·92	3·53	1·18	18·02	·39	...	...	...	·39	...	...	36·43	
,, District.	602	...	...	...	...	249·2	26·6	...	5·0	16·6	18·3	116·3	39·9	...	...	...	49·8	127·9	...	838·9	63·1
		...	...	...	...	4·98	...	...	1·66	3·32	1·66	21·59	1·66	...	...	...	1·66	...	...	39·87	
Chunar	1,558	...	4·5	...	...	381·9	18·6	...	19·9	1·3	11·6	44·3	53·9	...	...	...	214·4	101·4	...	1,052·0	53·9
		...	4·49	...	...	10·91	5·13	...	6·42	·64	1·93	10·91	8·34	...	...	...	60·98	·64	...	120·03	
Mirzapur	361	...	5·5	13·8	...	606·6	52·6	...	13·8	85·9	47·1	238·2	285·3	...	...	...	268·7	191·1	2·8	2,088·6	85·9
		...	5·54	2·77	...	...	...	...	...	27·70	...	41·55	8·31	...	...	...	...	...	...	102·49	
Allahabad Central.	2,316	...	...	4·7	·4	333·8	...	3·0	2·2	17·7	13·4	25·5	28·9	...	...	·4	46·2	104·5	...	800·1	39·7
		...	...	...	...	1·30	...	...	1·30	6·04	·86	1·73	1·73	...	...	...	3·89	...	...	20·73	
,, District.	761	1·3	6·6	6·6	...	415·2	9·2	5·3	10·5	60·4	63·1	102·5	105·1	...	21·0	...	61·8	128·8	...	1,479·6	69·6
		...	2·63	...	...	1·31	3·94	...	2·63	18·40	...	9·20	...	...	...	...	1·31	...	...	42·05	
Banda	304	236·8	...	6·6	...	401·3	...	...	13·2	105·3	13·2	282·9	82·2	...	...	...	36·2	243·3	...	1,690·8	82·2
		23·03	...	...	..	3·29	...	...	...	29·61	3·29	16·45	6·58	...	...	...	...	9·87	...	115·13	
Fatehpur	488	...	4·1	2·0	...	61·5	...	14·3	2·0	16·4	24·6	65·6	20·5	...	10·2	...	67·6	34·8	...	477·5	34·8
		...	...	...	...	....	...	...	2·05	6·15	2·05	4·10	8·20	...	...	...	...	...	...	26·64	
Hamirpur	244	...	8·2	...	...	983·6	...	8·2	...	20·5	135·2	508·2	90·2	...	20·5	...	262·3	159·8	...	2,737·7	98·4
		...	4·10	...	...	4·10	...	...	...	8·20	...	53·28	...	...	...	...	...	...	...	80·07	
Orai	222	...	130·6	...	...	1,337·5	...	36·0	31·5	31·5	81·1	378·4	121·6	...	18·0	...	54·1	121·6	...	2,693·7	67·6
		...	58·56	...	...	...	...	...	13·51	22·53	...	49·55	4·50	...	...	...	...	...	...	166·67	
Cawnpore	442	...	4·5	...	...	58·8	...	...	6·8	20·4	6·8	29·4	79·2	...	...	...	902·7	36·6	...	1,386·9	126·7
		...	...	...	...	...	...	...	2·26	4·52	...	2·26	13·57	...	...	...	18·10	...	...	45·25	
Unao	405	...	...	...	...	422·2	9·9	44·4	7·4	4·9	32·1	116·0	71·6	...	...	...	170·4	130·9	...	1,402·5	46·9
		...	...	...	...	...	...	...	2·47	...	...	12·35	...	...	...	...	...	...	...	14·81	
Lucknow Central.	1,729	156·7	7·5	·6	...	61·3	7·5	3·5	4·6	16·2	6·9	28·3	20·8	...	...	...	13·3	30·7	...	546·6	30·1
		...	4·63	...	...	...	...	...	2·31	1·74	...	...	...	...	...	...	·58	...	...	10·41	
,, District.	720	256·9	...	...	...	116·7	6·9	6·9	9·7	9·7	11·1	163·9	58·3	...	4·2	...	73·6	73·6	...	1,011·1	41·7
		2·78	...	...	...	...	...	...	2·78	2·78	...	6·94	1·39	...	...	...	1·39	...	...	22·22	
Barabanki	479	...	...	...	...	60·5	2·1	...	2·1	4·2	12·5	4·2	10·4	...	4·2	...	2·1	60·5	...	281·8	18·8
		...	...	...	...	...	...	...	...	...	...	...	2·09	...	...	...	...	...	...	6·26	
Gonda	645	...	...	4·7	...	347·3	6·2	...	1·6	26·4	14·0	97·7	26·4	...	...	...	10·9	52·7	...	738·0	43·4
		...	...	...	...	7·75	3·10	...	1·55	6·20	4·65	12·40	1·55	...	...	...	...	...	...	38·76	
Bahraich	465	...	...	...	...	772·0	...	...	...	49·5	25·8	221·5	12·9	...	...	...	30·1	144·1	...	1,716·1	83·9
		...	...	...	...	...	...	...	...	10·75	...	6·45	...	...	...	...	...	...	...	25·81	
Kheri	399	30·1	...	...	...	531·3	7·5	...	5·0	42·6	67·7	142·9	155·4	...	...	...	218·0	147·9	...	1,641·6	55·1
		...	...	...	...	...	...	...	...	10·03	7·52	12·53	...	...	...	...	...	...	...	37·59	
Sitapur	826	...	...	9·7	...	161·0	3·6	...	2·4	26·6	9·7	36·3	89·6	...	...	...	25·4	79·9	...	636·8	24·2
		...	...	...	...	1·21	...	...	1·21	7·26	...	...	...	...	...	...	1·21	...	...	16·95	
Hardoi	614	...	3·3	1·6	...	133·6	224·8	86·3	1·6	...	8·1	48·9	193·8	...	...	...	6·5	89·6	...	1,055·4	40·7
		...	...	...	...	...	1·63	...	3·26	...	1·63	...	13·03	...	...	...	...	...	...	26·06	
Etawah	318	...	...	...	...	81·8	9·4	84·9	3·1	37·7	25·2	47·2	88·1	...	...	...	62·9	81·8	...	726·4	31·4
		...	...	...	...	...	...	...	3·14	9·43	...	9·43	6·29	...	...	...	3·14	...	...	34·59	
Mainpuri	386	...	7·8	...	...	523·3	...	...	5·2	25·9	10·4	59·6	23·3	...	2·6	...	13·0	59·6	...	948·2	28·5
		...	...	...	...	2·59	...	...	2·59	2·59	...	7·77	...	...	...	...	2·59	...	...	23·32	
Etah	376	...	...	...	...	787·2	13·3	...	2·7	8·0	29·3	16·0	58·5	...	...	...	353·7	191·5	...	1,723·4	85·1
		...	...	...	...	...	2·66	...	2·66	...	2·66	2·66	...	...	...	...	...	...	...	10·64	
Fatehgarh Central.	2,113	166·5	...	·5	·9	364·4	1·9	...	15·1	17·0	41·6	208·7	93·2	...	...	...	12·3	94·2	...	1,218·6	67·7
		·47	...	...	...	...	...	...	6·15	2·37	1·42	17·64	·47	...	...	...	...	...	...	31·24	
,, District	494	68·8	...	2·0	...	548·6	...	...	8·1	16·2	68·8	240·9	78·9	2·0	...	...	8·1	145·7	...	1,550·6	52·6
		...	...	...	...	...	...	...	2·02	2·02	...	14·17	...	2·02	...	...	...	...	...	22·27	
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	32,047	25·4	4·8	2·2	·1	319·5	9·7	18·9	6·6	16·1	24·2	114·8	74·0	·1	1·2	·3	73·8	88·1	·1	1,034·24	48·9
		·31	2·90	·28	...	2·03	·75	...	2·80	4·43	·87	10·42	3·28	·03	·06	·03	4·68	·16	·03	40·4	
A.																					
Shahjahanpur	463	...	...	...	...	473·0	...	...	4·3	34·6	47·5	67·0	36·7	...	2·2	...	69·1	77·8	...	1,010·8	34·6
		...	...	...	...	...	...	...	2·16	8·64	4·32	...	4·32	...	...	...	2·16	...	...	28·08	
Bareilly Central.	2,497	...	...	1·6	...	611·1	...	...	4·4	27·6	2·0	18·0	10·4	...	...	...	3·6	152·6	...	991·6	48·9
		...	...	...	...	...	...	...	3·60	4·41	...	1·60	·40	...	...	...	·40	...	...	12·01	
,, District.	1,069	...	...	1·9	...	241·3	17·8	...	10·3	72·0	22·5	31·8	44·9	...	29·9	1·9	35·5	30·9	...	647·3	43·0
		...	...	...	...	...	...	...	1·87	14·03	2·81	3·74	3·74	...	...	...	·94	...	...	34·61	

Jails.	Average annual strength.	1. Admission-rate. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	2. Death-rate, per 1,000 of strength. Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Average constantly sick per 1,000 of strength.
Budaon	426	...	...	..	...	483·6	11·7	...	7·0	35·2	35·2	44·6	70·4	2·3	...	...	37·6	39·9	...	978·9	28·2
		...	...	...	...	...	...	...	4·69	4·69	2·35	2·35	...	2·35	...	...	2·35	...	...	23·43	
Aligarh	417	...	...	2·4	...	429·3	2·4	...	4·8	9·6	43·2	79·1	83·9	...	...	...	4·8	129·5	...	1,060·0	31·2
		...	...	...	...	...	...	...	...	2·40	...	...	...	...	...	...	...	...	...	4·80	
Bulandshahr	277	...	...	...	...	332·1	3·6	...	...	18·1	50·5	36·1	3·6	...	...	...	18·1	155·2	...	996·4	39·7
		...	...	...	...	...	...	...	...	7·22	...	...	...	...	...	...	...	...	...	7·22	
Moradabad	438	...	...	...	...	678·1	9·1	34·2	6·8	61·6	32·0	175·8	52·5	...	...	...	68·5	66·2	...	1,493·2	63·9
		...	...	...	...	2·28	2·28	...	4·57	2·28	4·57	20·55	...	...	...	...	...	...	...	45·66	
Bijnor	292	...	...	...	...	54·8	3·4	...	...	34·2	10·3	41·1	74·0	...	...	...	3·4	13·7	...	250·0	10·3
		...	...	...	...	...	3·42	...	...	...	...	6·85	6·85	...	...	...	...	...	...	20·55	
Dehra Dun	87	...	...	...	...	195·4	23·0	...	11·5	...	11·5	92·0	137·9	...	...	...	46·0	23·0	...	701·1	57·5
		...	...	...	...	22·99	...	...	...	...	...	22·99	22·99	...	...	...	...	...	...	91·95	
Saharanpur	344	...	2·9	...	...	244·2	...	...	8·7	11·6	26·2	81·4	20·3	...	...	...	2·9	142·4	...	811·0	40·7
		...	...	...	...	...	...	...	...	5·81	2·91	8·72	2·91	...	...	...	...	...	...	23·26	
Muzaffarnagar	221	...	...	4·5	4·5	561·1	...	...	...	45·2	22·6	140·3	67·9	...	...	...	22·6	90·5	...	1,194·6	49·8
		...	...	...	...	...	...	...	...	4·52	4·52	4·52	...	...	...	...	...	...	...	18·10	
Meerut	711	71·7	...	...	1·4	971·9	18·3	73·1	5·6	14·1	23·9	201·1	102·7	...	...	...	38·0	66·1	...	1,765·1	46·4
		4·22	...	...	...	9·85	...	...	...	7·03	4·22	16·88	5·63	...	...	...	2·81	...	...	56·26	
Delhi	518	...	...	...	...	953·7	1·9	...	3·9	42·5	13·5	38·6	94·6	...	...	...	7·7	131·3	...	1,415·1	25·1
		...	...	...	...	...	1·93	...	...	17·37	...	1·93	1·93	...	...	...	...	...	...	23·17	
Rohtak	174	...	...	...	...	1,798·9	5·7	...	5·7	...	23·0	63·2	103·4	...	...	...	5·7	155·2	...	2,396·6	34·5
		...	...	...	...	...	5·75	...	...	...	...	...	...	...	...	...	...	...	...	17·24	
Hissar	247	...	...	...	...	255·1	4·0	...	8·1	8·1	8·1	20·2	32·4	...	...	...	4·0	28·3	...	510·1	16·2
		...	...	...	...	...	...	...	4·05	...	...	...	4·05	...	...	...	...	...	...	8·10	
Karnal	144	...	...	...	...	250·0	...	...	6·9	34·7	20·8	41·7	6·9	...	...	...	...	41·7	...	597·2	13·9
		...	...	...	...	...	...	...	...	13·89	...	...	...	...	...	...	...	...	...	13·89	
Umballa	722	...	...	...	...	43·07	11·1	...	...	6·9	49·9	102·5	131·6	...	1·4	...	1·4	137·1	...	1,056·8	30·5
		...	...	...	...	...	2·77	...	...	1·39	1·39	6·93	4·16	...	...	...	...	...	...	19·39	
B. Ludhiana	262	...	...	3·8	...	931·3	...	61·1	...	19·1	3·8	49·6	30·5	...	3·8	...	7·6	64·9	...	1,301·5	22·9
		...	...	...	...	...	...	...	...	11·45	...	...	...	...	...	...	3·82	...	...	19·08	
Hoshiarpur	50	...	...	...	...	340·0	...	...	...	20·0	100·0	40·0	40·0	...	...	...	20·0	280·0	...	1,300·0	40·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jullundur	273	91·6	...	...	...	219·8	7·3	...	11·0	11·0	18·3	62·3	33·0	...	...	...	11·0	91·6	...	721·6	22·0
		...	...	...	...	...	...	...	...	7·33	...	...	...	...	...	...	...	...	...	10·99	
Ferozepore	424	...	...	...	...	294·8	...	...	7·1	7·1	11·8	23·6	33·0	...	...	...	9·4	103·8	...	776·4	16·5
		...	...	...	...	...	...	...	4·72	...	2·36	...	...	...	...	...	...	...	...	11·79	
Amritsar	194	...	...	...	...	505·2	...	...	...	5·2	5·2	10·3	30·9	...	...	...	46·4	180·4	...	963·9	20·6
		...	...	...	...	...	...	...	...	5·15	...	5·15	...	...	...	...	...	...	...	15·46	
Lahore Central.	1,419	...	...	·7	...	1,419·3	13·4	1·4	21·8	6·3	59·2	148·0	105·7	...	...	...	5·6	190·3	...	2,294·6	40·2
		...	...	...	...	·70	2·82	...	4·93	·70	1·41	2·11	2·82	...	...	...	...	...	...	19·73	
,, District	561	...	...	...	1·8	775·4	5·3	...	8·9	21·4	32·1	187·2	33·9	...	10·7	...	1·8	94·5	...	1,351·2	41·0
		...	...	...	...	...	...	...	5·35	8·91	...	8·91	...	...	...	...	...	...	...	30·30	
,, Female	132	...	...	7·6	...	1,030·3	7·6	...	7·6	...	60·6	234·8	30·3	...	...	22·7	...	37·9	...	1,780·3	37·9
		...	...	...	...	...	...	...	...	...	...	15·15	...	...	...	...	...	...	...	22·73	
Gurdaspur	198	...	...	...	...	126·3	...	...	...	15·2	5·1	20·2	45·5	...	...	...	...	10·1	...	378·8	15·2
		...	...	...	...	...	...	...	...	10·10	...	...	...	...	...	...	...	...	...	10·10	
Gujranwala	331	9·1	...	...	...	356·5	...	3·0	9·1	6·0	18·1	39·3	63·4	...	...	6·0	18·1	72·5	...	740·2	27·2
		...	...	...	...	...	...	...	3·02	...	...	3·02	3·02	...	...	...	...	...	...	9·06	
Chinawan	425	...	...	2·4	...	200·0	2·4	9·4	2·4	16·5	2·4	11·8	21·2	...	...	...	2·4	94·1	...	454·1	14·1
		...	...	...	...	...	...	...	2·35	2·35	...	...	...	...	...	...	...	...	...	7·06	
Sialkot	379	...	...	...	...	219·0	2·6	7·9	2·6	10·6	10·6	21·1	31·7	...	...	2·6	10·6	68·6	...	575·2	13·2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2·64	...	...	5·28	
Gujrat	82	...	...	...	...	122·0	...	...	...	12·2	61·0	109·8	12·2	...	...	...	61·0	97·6	...	792·7	24·4
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jhelum	248	...	...	...	...	991·9	28·2	...	8·1	8·1	12·1	64·5	76·6	...	...	...	4·0	153·2	...	1,447·6	24·2
		...	...	...	...	...	...	...	8·06	...	...	12·10	...	...	...	...	...	...	...	24·19	
Rawalpindi	739	4·1	...	1·4	...	1,093·4	...	41·9	6·8	41·9	48·7	144·8	151·6	...	16·2	...	17·6	269·3	...	2,134·0	39·2
		...	...	...	...	...	...	1·35	5·41	6·77	...	...	...	...	...	...	...	...	...	17·59	
Group VI.—Upper Sub-Himalayan.	14,764	5·6	·1	·9	·2	638·7	6·2	8·4	6·8	24·7	25·9	77·1	58·2	·1	3·6	·5	15·9	116·6	...	1,189·4	36·0
		·20	...	...	...	·75	·67	·07	2·51	5·15	1·15	4·00	1·76	·07	...	...	·54	...	...	20·73	

TABLE XLII—*continued.*

RATIOS of JAILS, GROUPS, and ADMINISTRATIONS. For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION RATE. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	2. DEATH-RATE, PER 1,000 OF STRENGTH. Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Average constantly sick per 1,000 of strength.
A																					
Peshawar .	436	...	...	...	...	1,328·0	9·2	...	...	9·2	39·0	110·1	59·6	...	...	6·9	25·2	236·2	...	1,977·1	75·7
		...	...	...	...	4·59	4·59	...	...	...	...	...	...	...	...	...	...	...	...	11·47	
Kohat . .	116	...	...	...	...	629·3	25·9	...	...	34·5	8·6	34·5	51·7	...	...	...	17·2	172·4	...	1,129·3	25·9
		...	...	...	...	...	...	...	...	8·62	...	...	8·62	...	...	...	...	...	...	25·86	
Bannu . .	106	...	...	...	...	707·5	47·2	...	9·4	28·3	75·5	226·4	113·2	...	...	9·4	18·9	37·7	9·4	1,632·1	28·2
		...	...	...	...	...	9·43	...	9·43	...	18·87	28·30	...	...	...	...	...	...	...	75·47	
Shahpur .	257	...	...	3·9	...	1,459·1	...	...	...	38·9	27·2	38·9	241·2	...	...	...	3·9	206·2	...	2,225·7	38·9
		...	...	...	...	3·89	...	...	...	3·89	...	...	...	...	...	...	...	...	...	11·67	
Jhang .	261	...	...	...	...	1,229·9	...	...	...	7·7	30·7	199·2	160·9	...	...	...	23·0	157·1	...	2,137·9	30·7
		...	...	...	...	...	...	...	...	3·83	...	3·83	...	...	...	...	3·83	3·83	...	22·99	
Montgomery.	1,512	...	...	...	...	508·6	...	...	4·6	9·9	27·8	66·1	57·5	...	...	·7	15·2	155·4	...	970·2	23·1
		...	...	...	...	·66	...	...	1·98	1·98	1·32	2·65	...	...	...	...	1·98	...	...	13·89	
Mooltan Central.	939	...	...	...	2·1	997·9	...	...	...	21·3	56·4	84·1	63·9	...	...	...	49·0	155·5	...	1,705·0	53·2
		...	...	...	...	...	...	...	...	5·32	1·06	5·32	1·06	...	...	...	2·13	...	...	17·04	
,, District	679	...	...	...	...	248·9	2·9	...	2·9	26·5	20·6	20·6	4·4	...	...	...	1·5	16·2	...	397·6	11·8
		...	...	...	...	...	1·47	...	2·95	5·89	...	...	1·47	...	...	...	...	...	...	13·25	
Dera Ismail Khan.	392	...	...	...	...	558·7	33·2	...	...	12·8	25·5	23·0	23·0	...	...	..	7·7	125·0	...	956·6	23·0
		...	...	...	...	...	2·55	...	...	7·65	...	...	2·55	...	...	...	...	...	...	12·76	
Dera Ghazi Khan.	366	...	...	..	...	1,024·6	...	...	2·7	30·1	32·8	27·3	109·3	...	...	...	32·8	90·2	...	1,541·0	30·1
		...	...	...	...	...	...	...	...	10·93	...	...	2·73	...	...	...	...	...	...	13·66	
C																					
Shikarpur .	462	...	...	13·0	...	129·9	4·3	...	...	84·4	32·5	21·6	30·3	...	...	13·0	10·8	41·1	...	476·2	21·6
		...	...	...	...	...	...	...	...	38·90	...	2·16	...	...	...	...	2·16	...	...	45·45	
Sind Gang .	276	108·7	...	...	...	50·7	76·1	68·8	...	199·3	76·1	14·5	43·5	...	10·9	...	10·9	10·9	...	775·4	25·4
		43·48	...	...	...	...	10·87	...	...	76·09	...	...	...	...	...	...	7·25	...	...	148·55	
Hyderabad .	638	...	...	...	3·1	315·0	1·6	...	3·1	17·2	31·3	7·8	81·5	...	...	4·7	97·2	170·8	...	1,040·8	36·1
		...	...	...	1·57	...	...	...	...	1·57	...	...	...	...	...	...	...	...	...	6·27	
Kurrachee .	272	...	...	...	...	430·1	3·7	...	18·4	3·7	44·1	44·1	36·8	...	...	...	36·8	58·8	...	941·2	47·8
		...	...	...	...	...	...	...	3·68	3·68	...	...	...	...	...	...	...	...	...	18·38	
GROUP VII.—N. W. FRONTIER, INDUS VALLEY, AND N. W. RAJPUTANA.	6,712	4·5	...	1·0	·6	638·3	7·7	2·8	2·7	29·5	35·8	56·8	64·8	...	·4	2·1	27·9	125·4	·1	1,181·0	33·2
		1·79	...	...	·15	·60	1·19	...	1·04	9·39	·74	2·09	·74	...	...	...	1·34	·15	...	22·65	
A																					
Rajkot . .	92	...	...	...	...	304·3	...	10·9	...	10·9	10·9	32·6	21·7	...	...	...	...	108·7	...	771·7	21·7
		...	...	...	...	...	...	..	...	10·87	...	...	..	...	...	...	...	...	...	32·61	
Ahmedabad .	1,002	...	...	...	...	307·4	...	1·0	18·0	42·9	60·9	124·8	31·9	..	...	1·0	11·0	74·9	...	899·2	24·0
		...	...	...	...	...	...	...	7·98	7·98	...	2·00	...	...	...	...	...	...	...	21·96	
B																					
Ajmere . .	293	...	...	...	...	95·6	...	...	...	6·8	13·7	23·9	...	...	3·4	...	...	23·9	...	252·6	13·7
		...	...	...	...	...	...	...	...	3·41	...	3·41	...	...	...	...	...	...	...	6·83	
Muttra . .	305	...	...	...	...	400·0	3·3	...	6·6	19·7	29·5	88·5	16·4	...	...	...	29·5	65·6	...	950·8	49·2
		...	...	...	...	...	...	...	3·28	6·56	...	9·84	...	...	...	...	...	...	...	22·95	
Agra Central	2,458	...	...	...	...	345·8	·4	..	7·3	15·1	23·6	60·2	75·3	...	...	...	23·6	56·1	...	906·0	41·5
		...	...	...	...	...	...	...	2·85	2·44	1·22	11·80	2·44	...	...	...	...	...	...	24·41	
,, District	701	...	1·4	...	...	419·4	1·4	...	7·1	30·0	31·4	48·5	92·7	...	...	...	27·1	138·4	...	1,015·7	62·8
		...	...	...	...	1·43	...	...	1·43	4·28	1·43	7·13	5·71	...	...	...	...	...	...	25·68	
Jhansi . .	285	...	...	...	...	175·4	...	...	3·5	10·5	3·5	115·8	77·2	...	...	...	38·6	112·3	...	750·9	38·6
		...	...	...	...	...	...	...	3·51	...	...	17·54	14·04	...	...	...	...	...	...	38·60	
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	5,136	...	·2	...	...	327·1	·6	·4	8·6	22·0	30·4	73·4	60·6	...	·2	·2	21·0	73·7	...	874·0	39·3
		...	...	...	...	·19	...	...	3·50	4·09	·78	8·76	2·73	...	...	...	...	...	...	23·95	

Jails.	Average annual strength.	1. Admission-rate.										2. Death-rate, per 1,000 of strength.								Average constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	
A																					
Damoh	210	...	...	...	...	176·2	9·5	...	...	9·5	52·4	800·0	9·5	...	...	...	28·6	100·0	4·8	1,819·0	90·5
		...	...	...	...	...	4·76	...	...	...	9·52	176·19	...	...	...	...	...	...	4·76	271·43	
Saugor	397	...	...	...	...	438·3	7·6	...	12·6	47·9	40·3	355·2	317·4	...	17·6	68·0	173·8	138·5	...	2,131·0	98·2
		...	...	...	...	...	...	...	5·04	10·08	2·52	156·17	40·30	...	5·04	...	7·56	...	...	259·45	
Jubbulpore	1,596	...	...	...	...	225·6	...	...	1·3	18·8	15·7	233·7	25·7	...	4·4	...	32·6	138·5	·6	1,145·4	57·0
		...	...	...	...	...	...	...	1·25	8·77	1·25	68·92	...	...	...	...	1·25	...	·63	88·35	
Narsieghpur	230	...	...	...	...	395·7	4·3	...	34·8	21·7	60·9	260·9	182·6	...	...	169·6	282·6	330·4	...	2,256·5	78·3
		...	...	...	...	...	...	...	26·09	13·04	...	82·61	4·35	...	...	...	...	...	...	160·87	
Mandla	224	...	26·8	...	...	156·3	102·7	...	...	49·1	53·6	334·8	160·7	...	...	40·2	75·9	272·3	...	1,776·8	75·9
		...	17·86	...	...	...	31·25	...	...	40·18	8·93	183·04	...	...	...	...	4·46	...	...	303·57	
Bilaspur	625	...	30·4	4·8	...	140·8	...	...	4·8	14·4	12·8	348·8	70·4	...	...	...	947·2	64·0	...	2,318·4	203·2
		...	19·20	1·60	...	...	...	...	4·80	12·80	3·20	164·80	6·40	...	...	...	73·60	...	...	339·20	
Sambalpur	260	...	30·8	53·8	...	38·5	11·5	...	3·8	19·2	3·8	146·2	50·0	...	...	...	23·1	11·5	...	473·1	23·1
		...	30·77	...	...	...	...	...	3·85	11·54	...	34·62	23·08	...	...	...	...	...	...	123·08	
Raipur	1,036	...	...	1·0	...	67·6	...	...	9·7	10·6	12·5	95·6	57·9	...	1·0	31·9	6·8	66·6	1·0	687·3	45·4
		...	...	...	...	·97	...	...	9·65	2·90	...	24·13	7·72	...	·97	...	4·83	...	·97	61·78	
Balaghat	164	...	24·4	...	...	61·0	...	6·1	24·4	61·0	...	140·2	737·8	..	...	...	73·2	36·6	...	1,268·3	54·9
		...	...	...	...	...	...	...	24·39	18·29	...	12·20	414·63	...	...	...	18·29	...	...	530·49	
Seoni	185	...	21·6	...	...	302·7	27·0	5·4	5·4	59·5	91·9	924·3	437·8	...	...	...	5·4	221·6	5·4	2,345·9	75·7
		...	10·81	...	...	...	...	...	5·41	...	...	172·97	59·46	...	...	...	...	...	5·41	259·46	
Chhindwara	195	...	...	...	...	261·5	5·1	56·4	...	51·3	10·3	5·1	123·1	...	...	...	143·6	97·4	...	1,276·9	46·2
		...	...	...	...	...	...	5·13	...	15·38	...	5·13	5·13	...	...	...	20·51	...	...	117·95	
Hoshangabad	327	...	...	9·2	...	183·5	...	...	3·1	21·4	39·8	128·4	159·0	...	...	128·4	73·4	131·5	...	1,048·9	42·8
		...	...	...	...	6·12	...	...	3·06	15·29	9·17	21·41	27·53	...	...	3·06	15·29	...	...	113·15	
Nimar	117	...	...	...	...	188·0	...	...	...	8·5	8·5	162·4	256·4	...	...	...	17·1	51·3	...	786·3	34·2
		...	...	...	...	...	...	...	...	8·55	...	...	34·19	...	...	...	...	8·55	...	59·83	
Betul	148	...	27·0	...	...	135·1	20·3	...	...	33·8	13·5	763·5	33·8	...	...	...	6·8	27·0	...	1,182·4	33·8
		...	13·51	...	...	...	6·76	...	...	13·51	6·76	101·35	...	...	...	...	...	...	...	148·65	
Nagpur	1,269	...	3·9	...	2·4	292·4	1·6	...	5·5	3·2	8·7	70·9	115·1	...	...	33·9	2·4	44·9	...	665·1	26·8
		...	2·36	...	2·36	...	1·58	...	2·36	1·58	·79	5·52	5·52	...	...	...	1·58	...	...	29·94	
Bhandara	178	...	5·6	...	...	264·0	...	196·6	5·6	11·2	56·2	134·8	269·7	...	...	...	84·3	39·3	...	1,747·2	95·5
		...	...	...	...	...	...	...	...	5·62	11·24	...	...	...	...	...	...	...	...	22·47	
Wardha	95	...	...	...	...	663·2	21·1	31·6	...	10·5	...	210·5	221·1	...	...	...	52·6	94·7	...	1,610·5	63·2
		...	...	...	...	...	...	...	...	10·53	...	73·68	...	...	...	...	...	...	...	84·21	
Chanda	139	...	...	...	7·2	165·5	...	...	...	7·2	...	21·6	43·2	...	...	...	14·4	36·0	...	402·9	14·4
		...	...	...	7·19	7·19	...	...	...	...	...	14·39	21·58	...	...	...	7·19	...	...	79·14	
Sironcha	6	...	...	...	...	...	...	...	...	...	...	...	166·7	...	...	...	...	...	...	166·7	1·3*
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
B.																					
Secunderabad	105	...	...	...	...	104·8	...	...	...	19·0	9·5	57·1	28·6	9·5	...	...	...	76·2	...	485·7	19·0
		...	...	...	...	...	...	...	...	9·52	...	19·05	...	9·52	...	...	...	...	...	38·10	
Yeotmahl	140	7·1	...	...	...	92·9	14·3	50·0	42·9	7·1	28·6	50·0	85·7	...	...	...	42·9	64·3	...	678·6	21·4
		...	...	...	...	...	7·14	...	14·29	...	...	7·14	7·14	...	...	...	...	...	...	42·86	
Amraoti	611	...	1·6	1·6	...	148·9	3·3	...	...	27·8	16·4	16·4	42·6	...	1·6	...	24·5	68·7	...	523·7	14·7
		...	...	...	...	...	...	...	...	8·18	3·27	4·91	3·27	...	...	...	...	...	...	26·19	
Ellichpur	85	...	...	...	...	858·8	...	...	...	11·8	11·8	23·5	47·1	...	...	...	23·5	70·6	...	1,188·2	23·5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11·76	...	...	23·53	
Akola	651	...	1·5	...	...	162·8	...	24·6	3·1	10·8	27·6	30·7	20·0	...	6·1	15·4	56·8	30·7	...	566·8	18·4
		...	1·54	...	...	1·54	...	...	1·54	3·07	3·07	4·61	...	...	...	6·14	10·75	...	...	46·08	
Basim	161	...	...	...	...	68·3	...	6·2	...	...	12·4	49·7	12·4	...	...	...	...	6·2	...	229·8	6·2
		...	...	...	...	...	...	...	...	...	...	18·63	...	...	...	...	...	...	...	37·27	
Buldana	145	...	...	...	...	186·2	...	20·7	6·9	13·8	20·7	13·8	27·6	...	...	...	34·5	34·5	...	496·6	20·7
		...	...	...	...	...	...	...	...	...	6·90	...	...	...	...	...	...	...	...	13·79	
Dhulia	508	...	5·9	...	...	106·3	...	...	...	9·8	5·9	102·4	31·5	...	7·9	17·7	3·9	37·4	...	405·5	17·7
		...	1·97	...	...	...	...	...	...	5·91	...	9·84	...	...	...	3·94	...	...	...	23·62	
Nasik	61	...	32·8	...	...	98·4	...	...	...	16·4	...	229·5	245·9	...	...	...	49·2	16·4	...	885·2	16·4
		...	16·39	...	...	...	...	...	...	...	...	16·39	16·39	...	...	...	...	...	...	65·57	
Yerrowda	1,775	...	·6	...	...	347·6	...	...	3·9	3·9	29·3	26·5	63·4	...	...	·6	8·5	118·3	·6	956·1	30·4
		...	·56	...	...	...	...	...	2·82	2·25	1·13	...	1·69	...	...	...	·56	...	·56	15·21	
Bijapur District	289	...	...	...	...	439·4	6·9	...	...	...	13·8	34·6	20·8	...	...	...	6·9	51·9	...	851·2	20·8
		...	...	...	...	...	...	...	...	3·46	...	3·46	...	...	...	...	...	...	...	10·38	
Deccan Gang	292	...	...	...	...	476·0	6·8	...	...	...	44·5	113·0	161·0	...	...	6·8	20·5	75·3	...	1,260·3	34·2
		...	...	...	...	...	3·42	...	...	...	...	...	...	...	...	...	...	...	...	3·42	
Dharwar	374	...	2·7	...	...	171·1	...	2·7	5·3	2·7	29·4	42·8	32·1	...	...	5·3	2·7	16·0	...	433·2	18·7
		...	...	...	...	...	...	...	...	...	...	...	5·35	...	...	...	...	...	...	5·35	
Group IX.—Deccan	12,598	·1	4·8	1·7	·3	232·3	4·2	6·3	4·8	14·9	22·1	151·2	93·0	·1	1·9	17·2	79·5	87·9	·4	1,029·7	47·4
		...	2·78	·08	·32	·40	1·03	·08	3·26	6·19	1·83	39·53	11·67	·68	·24	·56	6·43	·08	·40	88·43	

* Worked on the aggregates.

TABLE XLII—*continued.*

RATIOS of JAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE. Influenza.	Cholera.	Small-pox	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	2. DEATH-RATE, PER 1,000 OF STRENGTH. Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Average constantly sick per 1,000 of strength.
Thana	816	...	77·2	...	...	346·8	208·3	2·5	14·7	7·4	53·9	133·6	176·5	...	...	1·2	42·9	42·9	1·2	1,294·1	46·6
		...	45·34	...	...	...	24·51	...	4·90	1·23	6·13	17·16	17·16	...	...	1·23	...	...	...	118·87	
Bombay Common	305	...	...	...	...	55·7	...	...	13·1	6·6	9·8	36·1	65·6	...	...	...	...	13·1	...	301·6	9·8
		...	...	...	...	...	...	...	13·11	...	...	...	16·39	...	...	...	...	...	...	52·46	
Bombay House of Correction	255	...	3·9	...	...	113·7	19·6	...	15·7	15·7	23·5	102·0	19·6	...	...	...	...	15·7	...	623·5	27·5
		...	3·92	...	...	...	3·92	...	...	3·92	...	3·92	...	...	...	...	...	...	...	86·27	
Ratnagiri	191	...	...	...	...	78·5	5·2	5·2	5·2	...	5·2	20·9	20·9	...	...	73·3	15·7	15·7	...	466·0	47·1
		...	...	...	...	...	...	...	5·24	...	...	...	15·71	...	...	5·24	...	...	...	41·88	
Karwar	110	...	...	...	...	63·6	...	...	...	...	36·4	100·0	9·1	...	...	9·1	...	27·3	...	336·4	9·1
		...	...	...	...	...	...	...	...	9·09	...	...	...	...	...	...	...	...	...	9·09	
Mangalore	121	...	...	...	124·0	115·7	41·3	41·3	8·3	...	8·3	90·9	8·3	...	...	...	...	8·3	...	619·8	24·8
		...	...	...	41·32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41·32	
Cannanore	608	...	4·9	1·6	...	...	1·6	46·1	...	8·2	60·9	29·6	...	...	8·2	3·3	8·2	14·8	...	557·6	34·5
		...	3·29	1·64	...	...	...	...	1·64	1·64	1·64	1·64	...	...	...	1·64	...	...	...	34·54	
GROUP X.—WESTERN COAST.	2,406	...	27·8	·4	6·2	151·7	75·6	15·0	9·1	7·1	39·9	79·0	72·7	...	2·1	7·5	17·9	24·5	·4	767·7	34·1
		...	16·63	·42	2·68	...	8·73	...	4·16	1·66	2·49	6·65	9·14	...	...	1·25	...	...	...	70·66	
A Bellary	366	...	...	2·7	...	161·2	...	...	10·9	2·7	19·1	87·4	...	...	...	...	5·5	13·7	...	751·4	24·6
		...	...	...	...	...	...	...	2·73	...	...	...	...	...	...	...	...	...	...	8·20	
Salem	528	7·6	...	...	...	15·2	...	53·0	9·5	7·6	15·2	49·2	...	...	...	...	...	13·3	...	304·9	11·4
		...	...	...	...	...	...	...	3·79	...	1·89	1·89	...	...	...	...	...	...	...	9·47	
Coimbatore	863	...	324·4	...	...	33·6	...	29·0	30·1	4·6	23·2	97·3	...	...	...	...	...	12·7	...	797·2	29·0
		...	128·62	...	...	...	...	...	6·95	2·32	...	17·38	...	...	...	...	...	...	...	169·18	
B Palamcottah	336	...	6·0	...	...	3·0	3·0	113·1	8·9	6·0	38·7	44·6	...	...	...	...	8·9	71·4	...	610·1	26·8
		...	2·98	...	...	...	2·98	...	2·98	2·98	...	...	...	...	...	...	2·98	...	...	17·86	
Madura	339	...	5·9	...	...	126·8	5·9	59·0	5·9	5·9	44·2	76·7	...	...	...	...	...	8·8	...	513·3	20·6
		...	...	...	...	2·95	2·95	...	...	...	2·95	...	...	...	...	...	...	...	...	23·60	
Trichinopoly	790	...	...	...	...	236·7	2·5	...	21·5	...	34·2	25·3	10·1	...	...	...	7·6	72·2	...	539·2	20·3
		...	...	...	...	1·27	1·27	...	5·06	...	1·27	1·27	...	...	...	...	1·27	...	...	20·25	
Tanjore	334	...	...	...	...	24·0	...	56·9	9·0	9·0	29·9	44·9	...	...	...	...	9·0	21·0	...	449·1	24·0
		...	...	...	...	...	...	...	2·99	2·99	...	8·98	...	...	...	...	...	...	...	23·95	
Cuddalore	429	...	...	...	...	30·3	...	...	11·7	...	4·7	55·9	...	...	...	2·3	...	69·9	...	424·2	25·6
		...	...	...	...	...	...	...	2·33	...	...	9·32	...	...	...	...	...	...	...	16·32	
Vellore	1,058	...	20·8	...	·9	206·0	...	81·3	15·1	8·5	20·8	109·6	48·2	...	...	...	3·8	76·6	...	927·2	32·1
		...	5·67	...	·95	...	...	...	4·73	2·84	...	2·84	...	...	...	...	...	...	...	24·57	
Madras Debtors,' (natives)	35	...	...	...	...	142·9	...	28·6	...	...	28·6	28·6	...	...	...	...	28·6	...	...	457·1	11·4*
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Madras Penitentiary, (natives)	815	...	2·5	...	...	36·8	...	132·5	12·3	7·4	57·7	23·3	49·1	...	...	...	18·4	77·3	...	768·1	28·2
		...	1·23	...	...	...	...	...	4·91	1·23	...	...	...	...	...	...	...	...	...	14·72	
Madras Penitentiary, (Europeans)	15	...	...	...	...	133·3	...	...	66·7	66·7	200·0	...	...	...	...	...	...	...	...	1,400·0	66·7
		...	...	...	...	...	...	...	66·67	...	...	...	...	...	...	...	...	...	...	66·67	
Madras Debtors,' (Europeans)	·4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Nellore	113	...	...	...	...	17·7	...	238·9	...	...	53·1	26·5	35·4	...	...	...	...	61·9	...	619·5	17·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
C Rajamundry	1,016	...	199·8	...	...	434·1	...	28·5	25·6	17·7	78·7	197·8	...	...	1·0	2·0	3·9	70·9	...	2,044·3	85·6
		...	74·80	...	...	2·95	...	...	3·94	6·89	...	4·92	...	...	...	...	...	...	...	123·03	
Vizagapatam	356	...	22·5	...	...	87·1	...	42·1	14·0	36·5	16·9	56·2	59·0	...	...	8·4	...	16·9	...	601·0	28·1
		...	11·24	...	...	2·81	...	...	2·81	14·04	...	19·66	...	...	...	...	...	...	...	58·99	
Berhampur	162	...	43·2	18·5	...	86·4	...	111·1	12·3	6·2	37·0	179·0	...	...	...	...	6·2	123·5	...	1,154·3	30·9
		...	30·86	12·35	...	...	...	...	...	6·17	...	80·25	...	...	...	...	...	...	...	154·32	
GROUP XI.—SOUTHERN INDIA.	7,553	·5	69·4	·5	·1	144·4	·7	54·8	16·5	8·5	36·1	83·5	16·4	...	·1	·8	5·2	52·0	...	854·1	33·5
		...	27·00	·26	·13	·79	·40	...	4·10	2·78	·40	0·88	...	...	...	...	·26	...	...	54·14	

* Worked on the aggregates.

Jails.	Average annual strength.	1. Admission-rate. Influenza.	Cholera	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	2. Death-rate, per 1,000 of strength. Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Average constantly sick per 1,000 of strength.
Shillong .	40	...	...	...	...	275·0	...	...	...	...	...	250·0	250·0	...	...	...	...	...	...	900·0	25·0
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Darjeeling .	85	...	...	...	...	400·0	...	...	11·8	23·5	47·1	129·4	129·4	...	...	...	11·8	70·6	...	1,035·3	23·5
		...	...	...	...	11·76	...	...	11·76	...	...	...	...	...	...	...	...	...	...	23·53	
Almora .	91	...	...	...	...	65·9	11·0	11·0	...	22·0	11·0	44·0	11·0	...	...	...	11·0	22·0	...	373·6	33·0
		...	...	...	...	10·99	10·99	...	...	...	10·99	10·99	...	...	...	...	...	...	...	54·95	
Simla . .	13	...	...	...	...	615·4	153·8	...	...	...	...	...	...	...	...	...	...	153·8	...	1,461·5	35·8*
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dharmsala .	103	...	...	...	...	504·9	19·4	...	9·7	77·7	58·3	223·3	504·9	...	...	...	9·7	174·8	...	2,000·0	48·5
		...	...	...	...	...	...	...	...	9·71	...	...	...	...	...	...	...	...	...	9·71	
Abbottabad .	83	...	...	...	...	349·4	...	...	12·0	...	...	48·2	84·3	...	...	...	...	216·9	...	939·8	24·1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12·05	
Quetta . .	44	...	...	...	...	227·3	...	181·8	...	...	90·9	90·9	136·4	...	...	22·7	...	159·1	...	1,250·0	22·7
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mercara .	79	...	...	...	...	126·6	12·7	12·7	...	...	...	63·3	88·6	...	...	...	...	38·0	...	481·0	12·7
		...	...	...	...	...	12·66	...	...	...	...	...	12·66	...	...	...	...	...	...	25·32	
Russellkonda .	65	...	61·5	...	...	123·1	...	61·5	30·8	15·4	15·4	230·8	...	...	...	...	...	215·4	...	1,061·5	30·8
		...	46·15	...	...	...	...	...	30·77	...	...	15·38	...	...	...	...	...	...	...	92·31	
Group XII.—Hills.	603	...	6·6	...	...	278·6	10·0	23·2	8·3	21·6	26·5	126·0	155·9	...	...	1·7	5·0	116·1	...	1,033·2	28·2
		...	4·98	...	...	3·32	3·32	...	4·98	1·66	1·66	3·32	1·66	...	...	...	...	...	...	28·19	
Extra India—Aden .	49	...	...	...	...	40·8	...	...	...	...	...	61·2	...	...	...	...	...	20·4	...	122·4	3·1*
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
INDIA . .	118,107	8·4	8·1	1·0	·3	373·5	9·2	24·5	6·9	15·6	30·3	114·0	64·6	·1	1·4	2·6	39·0	92·1	·1	1,044·8	41·2
		·21	3·94	·12	·13	1·07	1·08	·03	2·95	4·24	1·02	11·07	3·17	·05	·08	·11	2·33	·06	·05	38·75	
Andamans .	10,590	...	...	...	...	879·7	16·4	21·2	5·3	3·5	74·2	89·9	44·6	...	1·4	·6	33·7	171·2	...	1,673·6	50·2
		...	...	...	...	·19	2·83	...	4·53	1·89	1·23	9·35	1·13	...	·19	·09	1·13	...	...	27·20	
Burma .	13,435	3·3	8·0	·3	·3	87·5	3·1	46·3	5·9	7·7	21·1	58·5	36·3	·4	...	·1	5·7	92·1	...	595·7	28·8
		...	5·21	·07	·30	·30	·52	...	2·38	1·86	·45	5·21	1·71	·15	...	...	·52	...	...	24·12	
Assam . .	1,233	...	10·5	...	...	399·0	4·9	·8	3·2	6·5	17·0	226·3	118·4	...	...	·8	35·7	31·6	...	1,028·4	51·9
		...	5·68	...	...	7·30	·81	...	...	1·62	1·62	9·73	4·06	...	...	...	2·43	...	...	46·23	
Bengal .	18,343	1·1	5·4	·8	...	309·1	11·4	66·3	7·6	15·3	25·9	237·2	99·1	·2	1·5	1·6	14·2	40·8	·2	1,045·1	36·6
		...	3·27	·11	...	2·24	·87	·11	3·33	3·71	·87	10·47	1·96	·05	·27	·11	·87	...	·05	34·24	
N.-W. Provinces and Oudh.	35,890	23·9	2·3	1·9	·1	350·7	8·6	6·0	6·4	21·6	22·7	87·4	59·1	·1	2·0	·3	70·1	97·0	...	1,011·7	50·1
		·36	1·28	·20	...	1·50	·53	...	2·45	4·93	1·17	9·17	3·15	·06	...	...	4·07	·14	...	35·44	
Punjab .	12,785	2·4	...	·5	·2	758·9	5·9	4·5	5·8	17·1	32·3	81·7	76·0	...	1·6	·9	13·5	136·1	·1	1,335·9	30·8
		...	...	...	...	·39	1·02	·08	2·11	4·30	·70	2·66	1·17	...	...	...	·63	·08	...	16·35	
Bombay .	7,767	3·9	9·1	·8	·3	268·8	26·4	3·2	7·1	22·7	34·9	63·7	65·0	...	·9	5·1	20·3	71·5	·3	845·8	28·8
		1·54	5·28	...	·13	...	3·22	...	2·96	7·85	·90	3·22	3·60	...	...	·51	·51	...	·13	37·21	
Berar and Secunderabad	1,898	·5	1·1	·5	...	174·9	2·1	14·2	4·7	15·8	20·5	29·0	33·7	·5	2·6	5·3	34·2	47·9	...	550·6	16·9
		...	·53	...	...	·53	·53	...	1·58	4·21	2·03	6·32	1·58	·53	...	2·11	4·21	...	...	34·77	
Central Provinces.	7,401	...	6·9	2·8	·5	214·6	6·1	6·9	5·8	19·5	21·1	226·7	121·5	...	2·0	26·1	122·6	100·4	·5	1,232·7	64·6
		...	4·19	·14	·54	·54	1·49	·14	4·46	8·38	2·16	64·72	18·65	...	·41	·14	9·73	·14	·54	134·98	
Madras .	8,349	·5	63·6	·6	1·9	133·3	1·3	54·0	15·3	8·4	37·4	80·8	15·0	...	·7	1·0	5·3	40·9	...	830·8	33·4
		...	25·03	·36	·72	·72	·36	...	4·07	2·64	·48	6·47	...	...	...	·12	·24	...	...	52·82	
Non-British Jails:—																					
Sadra .	41	...	...	...	...	24·4	...	...	24·4	...	...	...	48·8	...	...	...	...	24·4	...	243·9	9·8*
		...	...	...	...	...	...	...	24·39	...	...	...	24·39	...	...	...	...	...	...	48·78	
Kolhapur .	210	...	...	...	...	119·0	...	395·2	...	23·8	...	90·5	28·6	...	...	100·0	...	19·0	...	919·0	23·8
		...	...	...	...	...	...	...	...	...	...	4·76	4·76	...	...	...	...	...	...	19·05	
Savantvadi .	41	...	...	...	...	...	48·8	24·4	...	...	...	170·7	73·2	...	...	...	...	...	...	365·9	24·4
		...	...	...	...	...	24·39	...	...	...	...	...	...	...	...	...	...	...	...	24·39	

* Worked on the aggregates.

TABLE XLIII.

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS.																						2. DEATHS.										Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.								
Port Blair	10,590	...	...	...	...	9,316	174	224	56	37	786	952	472	...	15	6	357	1,813	...	17,723	...	...	...	1	...									532
		...	...	...	...	2	30	...	48	20	13	99	12	...	2	1	12	...	...	288	...	...	...	...	...									
Mergui	31	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	22	...	...	...	...	...									1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Tavoy	74	...	...	...	...	4	...	2	...	...	...	9	5	...	...	...	2	4	...	36	...	...	...	...	...									2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Moulmein	761	...	63	...	...	7	5	60	8	5	15	116	80	2	...	...	2	134	...	663	...	...	...	...	...									32
		...	37	...	...	...	1	...	5	...	...	10	3	...	...	...	...	...	...	60	...	...	...	...	...									
Shwegyin	183	...	3	...	...	68	..	1	...	...	8	61	29	..	...	...	...	32	...	280	...	...	...	...	...									14
		...	2	...	...	1	...	...	...	...	...	2	...	..	...	...	...	...	...	6	...	...	..	...	...									
Toungoo	587	...	4	...	...	44	...	...	6	2	3	39	29	...	...	...	...	18	...	246	...	...	...	...	...									8
		..	2	...	...	...	...	...	3	...	...	4	...	...	...	...	...	...	...	13	...	...	...	...	...									
Rangoon, Europeans.	22	...	...	...	...	...	...	7	...	...	2	4	1	...	...	...	...	1	...	28	...	...	...	...	...									1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Rangoon, natives.	2,422	...	...	...	2	106	4	342	10	31	131	51	99	2	...	...	3	403	...	1,863	1	6	...	...	1									90
		...	...	...	2	...	...	...	6	6	...	8	7	1	...	...	2	...	...	54	...	...	...	...	...									
Maubin	406	...	...	...	...	1	...	9	...	5	...	7	3	...	...	...	4	35	...	114	...	...	...	...	...									6
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	...	3	...	...	...	...	...									
Bassein	1,267	...	3	1	...	93	...	108	13	6	10	17	10	...	...	1	8	167	...	785	...	...	...	...	...									36
		...	3	...	...	...	...	...	2	...	...	1	1	...	...	...	...	...	...	12	...	...	...	...	...									
Insein	1,747	...	...	2	1	212	6	...	4	11	37	68	33	1	...	1	7	218	...	1,313	2	1	...	...	...									67
		...	...	1	1	1	...	...	1	...	2	3	1	1	...	...	2	...	...	21	...	...	...	...	...									
Henzada	471	...	...	...	...	17	4	...	...	...	5	3	2	...	...	...	...	7	...	132	...	...	...	...	...									9
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...									
Myanaung	78	...	...	...	...	25	...	...	...	...	...	4	6	...	...	...	1	11	...	73	...	...	...	...	...									2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
Sandoway	54	...	...	...	...	8	...	...	...	...	1	...	...	...	...	...	...	2	...	21	...	...	...	...	...									1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...									
Kyaukpyu	243	...	...	...	...	34	...	...	1	1	4	60	5	...	...	...	...	12	...	123	...	...	...	...	...									4
		...	...	...	...	...	...	...	1	...	2	19	1	...	...	...	...	...	...	25	...	...	...	...	...									
Akyab	478	...	1	...	...	21	1	...	1	9	2	53	6	...	...	...	10	7	...	148	..	...	...	...	...									7
		...	...	...	...	...	...	...	...	1	1	5	...	...	...	...	...	...	...	8	..	...	...	...	...									
GROUP I.—BURMA COAST AND BAY ISLANDS.	19,414	...	74	3	3	9,958	194	753	99	107	1,004	1,444	780	5	15	8	394	2,865	...	23,570	3	7	...	1	1									812
		...	44	1	3	4	31	...	66	29	18	151	25	2	2	1	17	...	...	492	...	...	...	...	...									
Paungdi	54	...	3	...	...	14	..	...	...	...	...	5	4	...	...	...	...	8	...	44	...	...	...	...	...									1
		...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...									
Prome	218	...	5	...	...	6	...	...	...	...	2	6	1	...	...	...	...	9	...	75	...	...	...	...	...									4
		...	4	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	7	...	...	...	...	...									
Thayetmyo	1,015	...	...	...	1	141	...	5	1	14	27	16	15	...	...	...	3	32	...	361	...	...	...	...	...									23
		...	...	...	1	...	...	...	1	6	1	1	...	...	...	...	...	...	...	14	...	...	...	...	...									
Taungdwingyi	75	...	...	...	...	3	...	...	...	...	...	4	2	...	...	...	...	8	...	25	...	...	...	...	...									2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...									
Magwe	146	...	...	...	...	...	...	5	...	...	...	3	4	...	...	...	...	3	...	20	...	...	...	...	...									1
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...									
Minbu	118	...	10	...	...	12	1	...	...	...	...	4	3	...	...	...	...	24	...	115	...	...	...	...	...									3
		...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...									
Yamethin	115	...	...	...	...	22	...	...	2	...	...	9	4	...	...	...	1	7	...	57	...	...	...	...	...									3
		...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...									
Meiktila	160	...	1	...	...	20	...	...	1	1	1	16	3	...	...	...	...	18	...	94	...	...	...	...	...									4
		...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...									
Pagan	91	...	...	...	...	4	3	...	...	...	...	7	3	...	...	...	...	1	...	48	...	...	...	...	...									3
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	8	...	...	...	...	...									
Pakôkku	73	...	2	1	...	8	...	...	...	...	1	2	9	...	...	...	...	3	...	32	...	...	...	...	...									1
		...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	5	...	...	...	...	...									
Myingyan	1,025	45	13	...	..	105	13	...	7	...	2	21	19	...	...	...	7	22	...	332	...	...	...	...	...									17
		...	10	...	..	...	2	...	5	...	...	2	1	...	...	...	...	...	...	20	...	...	...	...	...									
Mandalay	1,024	...	...	...	...	111	1	78	19	14	18	142	79	...	...	...	9	20	...	607	...	...	...	...	...									31
		...	...	...	...	1	2	...	6	7	...	2	8	...	...	...	1	...	...	30	...	...	...	...	...									
Monywa	105	...	...	...	...	4	...	1	...	...	2	3	...	...	...	...	2	8	...	36	...	...	...	...	...									2
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...									
Shwebo	159	...	...	...	...	3	2	4	1	1	3	7	6	...	...	...	6	9	...	54	...	...	...	...	...									3
		...	...	...	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...									
Bhamo	76	...	...	...	...	6	...	...	2	1	...	28	6	...	...	...	5	1	...	55	1	...	...	...	...									3
		...	...	...	...	...	...	...	1	1	...	5	...	...	...	...	1	...	...	10	...	...	...	...	...									
Katha	81	...	...	...	...	58	1	...	1	2	6	14	18	...	...	...	6	9	...	152	...	...	...	...	...									4
		...	...	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	6	...	...	...	...	...									
Kindat	76	...	...	...	...	16	1	...	2	...	4	7	4	...	...	...	...	4	...	49	...	...	...	...	...									2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...									
GROUP II.—BURMA INLAND.	4,611	45	34	1	1	533	22	93	36	33	66	294	180	...	...	...	38	186	...	2,156	1	...	...	...	...									107
		...	29	...	1	2	6	...	14	16	1	18	10	...	...	...	2	...	...	120	...	...	...	...	...									

Jails.	Average annual strength.	1. Admissions.																													Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.							
Cachar	72	...	...	...	...	48	...	...	...	...	1	29	14	...	...	...	...	5	...	112	...	...	...	...	...						4
		...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	4	...	...	...	...	...						
Sibsagar	63	...	...	...	...	26	1	...	...	...	1	13	11	...	...	...	2	2	...	69	...	...	...	...	...						2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...						
Dibrugarh	72	...	2	...	...	51	...	...	4	4	...	45	12	...	...	...	...	4	...	146	...	...	...	...	...						5
		...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	4	...	...	...	...	...						
Tezpur	225	...	...	...	...	76	...	...	...	3	1	8	8	...	...	...	12	14	...	154	...	...	...	...	...						9
		...	...	...	...	5	...	...	...	1	...	...	2	...	...	...	3	...	...	11	...	...	...	...	...						
Nowgong	51	...	...	...	...	48	1	1	...	...	4	3	2	...	...	...	1	6	...	97	...	2	...	4	...						4
		...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...						
Gauhati	148	...	8	...	...	64	1	...	...	1	3	56	40	...	...	...	1	4	...	186	...	...	...	1	...						9
		...	4	...	...	1	1	...	...	...	1	2	...	...	...	...	...	...	...	10	...	...	...	...	...						
Dhubri	17	...	2	...	...	...	...	...	...	...	...	3	7	...	...	...	...	...	...	16	...	...	...	...	...						1
		...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...						
Sylhet	545	...	1	...	...	168	3	...	...	...	11	112	42	...	...	1	28	4	...	452	...	...	...	...	1						29
		...	1	...	...	1	...	...	...	...	1	7	2	...	...	...	...	...	...	24	...	...	...	...	...						
Group III.—Assam.	1,193	...	13	...	...	481	6	1	4	8	21	269	136	..	...	1	44	39	...	1,232	...	2	...	5	1						63
		...	7	...	...	9	1	...	...	2	2	12	5	...	...	...	3	...	...	57	...	...	...	...	...						
Mymensingh	367	...	...	...	...	108	3	4	2	2	7	85	35	...	...	3	22	27	...	467	...	...	...	...	...						15
		...	...	...	...	1	...	1	1	1	1	1	...	...	...	...	1	...	...	7	...	...	...	...	...						
Dacca	1,094	...	1	...	...	268	1	107	4	13	6	238	13	...	1	...	22	11	...	860	...	...	...	...	...						41
		...	1	...	...	...	...	...	2	1	1	2	...	..	1	...	...	...	...	10	...	...	...	...	...						
Tippera	182	...	...	...	...	31	1	62	4	...	6	91	12	...	1	7	1	8	...	275	...	...	...	...	...						8
		...	...	...	...	...	...	...	3	...	...	3	1	...	...	...	...	...	...	11	...	...	...	...	...						
Chittagong	222	...	1	...	...	62	1	...	1	1	2	49	8	...	...	...	1	8	...	145	...	...	...	...	...						4
		...	1	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	6	...	...	...	...	...						
Noakhali	93	...	...	...	...	34	...	...	...	...	3	83	20	...	...	...	1	2	...	151	...	...	...	...	...						5
		...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	4	...	...	...	...	...						
Backergunge	467	...	1	...	...	132	...	...	4	5	18	204	113	...	...	2	6	15	2	552	...	...	...	...	...						29
		...	...	...	...	2	...	...	4	2	2	20	4	...	...	...	2	...	...	41	...	...	...	...	...						
Khulna	41	...	...	...	...	4	...	5	1	1	1	9	1	...	...	...	...	...	...	29	...	...	...	...	...						1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
Jessore	391	...	...	...	...	146	6	...	...	40	10	316	4	...	...	...	2	4	...	602	...	...	...	...	...						35
		...	...	...	...	...	1	...	...	9	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...						
Baraset	182	...	...	...	...	101	9	...	1	4	2	123	6	...	...	5	1	9	...	302	...	...	...	...	...						7
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	6	...	...	...	...	...						
Presidency, Europeans.	29	...	...	...	...	7	...	...	1	...	...	3	6	...	...	...	...	2	...	34	...	...	...	...	...						1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
Presidency, natives.	1,193	...	...	...	...	143	2	41	18	11	15	189	50	...	1	...	4	16	...	610	...	...	...	...	...						24
		...	...	...	...	2	...	...	3	3	3	7	2	...	...	...	...	...	...	23	...	...	...	...	...						
Alipore	1,780	...	4	...	...	44	15	433	19	41	83	534	128	...	18	1	18	118	...	2,096	2	...	...	...	...						67
		...	1	...	...	6	1	...	7	10	...	3	...	...	...	...	...	...	...	34	...	...	...	...	...						
Hooghly	370	...	...	...	...	67	...	...	1	7	4	172	176	...	...	...	...	1	...	466	3	...	...	...	...						13
		...	...	...	...	1	...	...	...	1	...	2	...	...	...	...	...	...	...	6	...	...	...	...	...						
Burdwan	210	...	...	...	...	29	...	6	5	6	4	19	4	1	...	...	3	1	...	102	...	...	...	...	...						7
		...	...	...	...	...	...	...	1	1	...	2	...	1	...	...	...	...	...	5	...	...	...	...	...						
Krishnagar	218	...	1	...	...	25	6	...	1	2	7	31	3	...	...	...	2	7	...	95	...	...	...	...	...						7
		...	1	...	...	...	3	...	...	1	1	3	...	...	...	...	1	...	...	11	...	...	...	...	...						
Faridpur	347	...	...	...	...	63	8	65	...	14	20	200	22	...	...	6	2	6	...	460	...	...	...	...	...						19
		...	...	...	...	1	1	...	...	6	1	4	1	...	...	...	...	...	...	18	...	...	...	...	...						
Pabna	124	...	...	...	...	43	3	12	1	1	3	34	40	...	...	...	...	13	...	182	...	...	...	...	...						5
		...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...						
Murshidabad	227	...	...	1	...	80	...	...	...	2	14	39	26	...	...	...	...	15	...	241	1	...	...	...	...						7
		...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...						
Rajshahi	672	11	...	...	...	367	51	5	6	6	16	11	30	..	...	...	1	4	...	687	...	...	...	...	...						15
		...	...	...	...	...	1	...	1	...	...	3	1	..	...	...	...	...	...	8	...	...	...	...	...						
Bogra	94	...	1	...	...	82	9	4	2	...	5	89	1	...	...	...	...	2	...	205	...	...	...	...	...						5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...						
Malda	94	...	...	...	...	86	1	...	1	2	5	21	26	...	...	...	11	10	...	208	...	...	...	...	...						7
		...	...	...	...	1	...	...	1	...	1	2	...	...	...	...	...	...	...	5	...	...	...	...	...						
Dinajpur	204	...	2	..	...	160	8	...	1	2	2	86	15	...	...	...	5	11	...	340	...	...	...	...	...						12
		...	1	.....		1	...	...	1	...	...	3	...	...	...	...	...	...	...	11	...	...	...	...	...						

TABLE XLIII—*continued.*

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

Jails.	Average annual strength.	1. Admissions. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	2. Deaths. All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	Average number constantly sick.
Rangpur	119	...	...	...	...	71	...	...	1	...	1	49	21	...	...	...	2	9	...	178	1	...	...	...	...	3
		...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	4	...	...	...	...	...	
Jalpaiguri	76	...	...	...	...	12	...	2	2	1	1	12	8	...	...	...	2	3	...	80	...	...	...	...	...	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Purneah	195	...	...	...	...	152	8	12	4	7	5	99	19	...	...	1	1	4	...	335	...	...	...	...	...	14
		...	...	...	...	...	1	...	1	...	...	4	...	...	...	...	...	...	...	6	...	...	...	...	...	
Naya Dumka	97	...	4	...	...	11	...	...	...	1	...	4	1	...	...	1	8	...	...	35	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	
Suri	339	...	1	...	...	124	...	...	3	6	7	64	16	..	3	...	...	13	...	307	...	...	...	...	...	11
		...	1	..	...	...	...	...	2	4	...	8	1	...	2	...	...	...	...	20	...	...	...	...	...	
Bankura	249	...	...	...	...	106	3	...	4	7	9	48	94	1	...	...	13	15	...	367	...	...	...	...	...	9
		...	...	...	...	1	...	...	1	1	...	9	1	...	...	...	1	...	...	15	...	...	...	...	...	
Midnapore	844	...	3	...	...	256	22	...	2	27	15	111	45	...	...	...	6	45	...	657	...	...	...	...	..	24
		...	2	...	...	...	...	...	...	6	1	12	2	...	...	...	...	...	...	28	...	...	...	...	...	
Balasore	111	1	1	...	...	23	...	...	...	1	...	19	8	...	...	...	...	1	...	60	...	...	...	...	...	2
		...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	..	4	...	...	...	...	...	
Cuttack	284	...	6	...	...	111	1	1	4	8	2	46	35	1	...	1	1	12	...	249	...	...	...	...	...	9
		...	4	...	...	...	...	1	3	...	...	4	1	...	...	...	...	...	...	14	...	...	...	...	...	
Puri	104	...	...	...	...	3	1	...	...	1	...	3	1	...	...	...	9	4	...	38	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	
Group IV.—Bengal and Orissa.	11,019	12	26	1	...	2,051	159	759	93	219	273	3,081	987	3	24	27	144	396	2	11,415	7	...	...	...	...	410
		...	13	..	...	17	8	2	32	48	12	106	14	1	3	1	6	...	...	321	...	...	...	...	...	
A. Chaibassa	151	...	..	...	...	51	8	...	3	3	5	157	28	...	...	...	1	2	...	282	...	...	...	...	...	13
		...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	12	...	...	...	...	...	
Purulia	264	...	4	5	...	60	3	...	1	6	11	117	56	...	...	...	8	5	...	298	...	...	...	...	...	5
		...	3	...	...	...	1	...	1	2	1	11	2	...	...	...	...	...	...	22	...	...	...	...	...	
Ranchi	269	...	15	4	...	33	2	...	6	1	2	115	81	...	...	1	5	10	...	313	...	...	...	...	...	9
		...	10	1	...	...	1	...	4	...	...	10	4	...	...	...	...	...	...	35	...	...	...	...	...	
Palámau	86	...	22	...	...	32	...	...	1	...	2	3	2	...	...	...	...	...	...	66	...	...	...	...	...	2
		...	13	...	...	6	...	...	1	...	...	1	1	...	...	...	...	...	...	24	...	...	...	...	...	
Hazáribagh	1,002	...	32	...	..	104	9	232	14	8	17	125	37	...	...	...	3	20	1	697	...	...	...	...	...	24
		...	21	...	...	1	2	...	10	2	1	13	1	...	...	...	1	...	1	62	...	...	...	...	...	
B. Gaya	512	...	...	1	..	405	5	15	2	3	34	110	70	...	...	...	3	57	...	856	...	...	...	...	...	22
		...	...	...	...	...	...	...	1	1	...	3	5	...	...	...	...	...	...	14	...	...	...	...	...	
Bhagalpur	1,585	...	...	1	...	254	3	113	3	13	45	62	62	...	...	...	22	52	...	963	...	...	...	...	...	42
		...	...	...	...	3	2	...	2	3	...	9	2	...	...	...	1	...	...	35	...	...	...	...	...	
Monghyr	265	...	..	...	...	32	...	...	...	2	18	45	82	...	...	...	2	36	...	365	5	...	...	...	...	13
		...	...	...	...	...	...	...	...	2	...	...	3	...	...	...	...	...	...	9	...	...	...	...	...	
Darbhanga	397	...	...	...	...	41	2	4	3	4	7	53	28	...	...	1	2	9	...	225	...	...	...	...	...	9
		...	...	...	...	2	1	...	2	3	...	3	1	...	...	1	...	...	...	14	...	...	...	...	...	
Champaran	377	...	...	1	...	202	7	...	3	3	3	161	121	...	...	...	31	42	...	716	...	...	...	...	...	29
		...	...	...	...	3	...	...	1	...	...	9	1	...	...	...	3	...	...	18	...	...	...	...	...	
Muzaffarpur	370	8	...	...	...	96	5	...	1	1	9	45	23	...	3	...	13	6	...	264	1	...	...	...	...	11
		...	...	...	...	2	...	...	...	...	...	5	2	...	2	...	4	...	...	16	...	...	...	...	...	
Patna	333	...	...	...	...	123	4	...	...	2	8	42	87	...	...	...	...	39	...	436	...	...	...	...	...	11
		...	...	...	...	...	...	...	...	2	2	1	...	...	...	...	...	...	...	7	...	...	...	...	...	
Arrah	257	...	..	...	...	29	...	3	1	6	4	14	4	...	...	...	16	2	...	114	...	...	...	...	...	8
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Chapra	267	...	...	1	...	78	3	...	1	...	9	180	71	...	...	...	3	12	...	480	3	27	...	1	...	24
		...	...	1	...	5	1	...	...	...	...	9	...	...	...	...	1	...	...	19	...	...	...	1	...	
Buxar	1,104	...	...	...	...	1,145	...	91	7	7	25	30	68	...	...	...	6	54	...	1,593	...	1	...	...	1	37
		...	...	...	...	1	...	...	6	3	...	2	...	...	...	...	...	...	...	15	...	...	...	...	...	
Ghazipur	590	5	...	1	...	30	...	2	2	13	14	6	5	...	...	...	10	47	...	239	...	1	...	...	...	11
		...	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	1	...	9	...	...	...	...	...	
Azamgarh	557	...	3	4	...	150	2	...	2	8	18	46	40	...	...	...	63	52	...	1,028	..	...	...	...	...	84
		...	2	...	...	...	1	...	1	1	2	7	3	...	...	...	6	...	...	53	...	...	...	...	...	
Gorakhpur	547	...	1	2	...	148	...	...	2	16	5	139	7	...	...	5	107	60	...	652	4	2	...	13	...	58
		...	1	1	...	...	...	...	...	3	...	12	...	...	...	...	...	...	...	20	...	...	...	2	...	
Basti	506	...	...	2	...	144	...	6	2	4	8	39	60	...	...	...	57	46	...	467	1	...	...	...	...	23
		...	...	1	...	1	...	...	...	2	...	2	2	...	...	...	1	...	...	15	...	...	...	...	...	
Fyzabad	746	...	3	4	...	228	1	...	2	6	13	54	71	...	...	1	20	155	...	881	1	...	...	...	...	36
		...	3	1	..	...	...	...	...	3	...	7	2	...	...	...	1	...	...	18	...	...	...	...	...	
Sultanpur	524	...	...	2	...	281	...	...	...	6	2	28	35	...	...	...	36	10	...	492	...	...	...	...	...	23
		...	...	...	...	...	...	...	...	3	...	...	5	...	...	...	3	...	...	15	...	...	...	...	...	
Rai Bareli	760	...	5	1	...	94	...	...	3	4	6	16	41	...	1	...	240	42	...	622	...	...	...	...	...	38
		...	4	1	...	1	...	...	1	1	...	...	8	...	...	...	7	...	...	55	...	...	...	...	...	

Jails.	Average annual strength.	1. Admissions. 2. Deaths.																										Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	
Partabgarh	355	...	...	...	...	56	1	1	3	3	14	28	10	1	...	...	44	20	...	264	...	...	...	...	...	9
		...	...	...	...	...	...	...	1	...	...	5	...	...	...	...	2	...	...	8	...	...	...	...	...	
Jaunpur	403	...	3	4	...	123	1	1	1	4	7	62	78	...	...	...	12	32	...	399	...	...	...	...	...	13
		...	3	2	...	...	...	...	...	2	...	5	13	...	...	...	...	...	...	25	...	...	...	...	...	
Benares Central	2,553	...	...	...	...	568	...	...	15	16	48	199	41	...	...	...	59	327	...	1,863	2	...	...	...	1	113
		...	...	...	...	7	...	...	10	9	3	46	1	...	...	...	1	...	...	93	...	...	...	...	...	
„ District	602	...	...	...	...	150	16	...	3	10	11	70	24	...	...	...	30	77	...	595	...	...	...	...	...	38
		...	...	...	...	3	...	...	1	2	1	13	1	...	...	...	1	...	...	24	...	...	...	...	...	
Chunar	1,558	...	7	...	...	595	29	...	31	2	18	69	84	...	...	...	334	158	...	1,639	...	...	...	...	...	84
		...	7	...	...	17	8	...	10	1	3	17	13	...	...	...	95	1	...	187	...	...	...	...	...	
Mirzapur	361	...	2	5	...	219	19	...	5	31	17	86	103	...	...	...	97	69	1	754	...	...	...	...	...	31
		...	2	1	...	...	...	...	...	10	...	15	3	...	...	...	...	...	...	37	...	...	...	...	...	
Allahabad Central	2,316	...	...	11	1	773	...	7	5	41	31	59	67	...	...	1	107	242	...	1,853	...	...	1	...	...	92
		...	...	...	...	3	...	...	3	14	2	4	4	...	...	...	9	...	...	48	...	...	...	...	...	
„ District	761	1	5	5	...	316	7	4	8	46	48	78	80	..	16	...	47	98	...	1,126	3	1	...	...	...	53
		...	2	...	...	1	3	...	2	14	...	7	...	...	...	...	1	...	...	32	...	...	...	...	...	
Banda	304	72	..	2	...	122	...	...	4	32	4	86	25	...	...	...	11	74	...	514	...	...	...	...	...	25
		7	...	...	...	1	...	...	...	9	1	5	2	...	...	...	...	3	...	35	...	...	...	...	...	
Fatehpur	488	...	2	1	...	30	...	7	1	8	12	32	10	...	5	...	33	17	...	233	...	...	...	...	...	17
		...	...	...	...	...	...	...	1	3	1	2	4	...	...	...	...	...	...	13	...	...	...	...	...	
Hamirpur	244	...	2	...	...	240	...	2	...	5	33	124	22	...	5	...	64	39	...	668	...	...	...	...	...	24
		...	1	...	...	1	...	...	...	2	...	13	...	...	...	...	...	...	...	21	...	...	...	...	...	
Orai	222	...	29	...	...	297	...	8	7	7	18	84	27	...	4	...	12	27	...	598	...	...	...	...	...	15
		...	13	...	...	...	...	...	3	5	...	11	1	...	...	...	...	...	...	37	...	...	...	...	...	
Cawnpore	442	...	2	...	...	26	...	...	3	9	3	13	35	...	...	...	399	25	...	613	...	...	...	...	...	56
		...	...	...	...	...	...	...	1	2	...	1	6	...	...	...	8	...	...	20	...	...	...	...	...	
Unao	405	...	...	...	...	171	4	18	3	2	13	47	29	...	...	...	69	53	...	568	...	...	3	...	...	19
		...	...	...	...	...	...	...	1	...	...	5	...	...	...	...	...	...	...	6	...	...	...	...	...	
Lucknow Central	1,729	271	13	1	...	106	13	6	8	28	12	49	36	...	...	...	23	53	...	945	1	...	...	...	...	52
		...	8	...	...	...	...	...	4	3	...	...	...	...	...	...	1	...	...	18	...	...	...	...	...	
„ District	720	185	...	...	...	84	5	5	7	7	8	118	42	...	3	...	53	53	...	728	...	...	...	...	...	30
		2	...	...	...	...	...	...	2	2	...	5	1	...	...	...	1	...	...	16	...	...	...	...	...	
Barabanki	479	...	...	...	...	29	1	...	1	2	6	2	5	...	2	...	1	29	...	135	...	...	...	...	...	9
		...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...	...	...	
Gonda	645	...	...	3	...	224	4	...	1	17	9	63	17	...	...	...	7	34	...	476	...	...	...	...	...	28
		...	...	...	...	5	2	...	1	4	3	8	1	...	...	...	...	...	...	25	...	...	...	...	...	
Bahraich	465	...	...	...	...	359	...	...	...	23	12	103	6	...	...	...	14	67	...	798	...	...	...	...	...	39
		...	...	...	...	...	...	...	...	5	...	3	...	...	...	...	...	...	...	12	...	...	...	...	...	
Kheri	399	12	...	...	...	212	3	...	2	17	27	57	62	...	...	...	87	59	...	655	...	...	...	...	...	22
		...	...	...	...	...	...	...	...	4	3	5	...	...	...	...	...	...	...	15	...	...	...	...	...	
Sitapur	826	...	...	8	...	133	3	...	2	22	8	30	74	...	...	...	21	66	...	526	...	...	...	2	5	20
		...	...	...	...	1	...	...	1	6	...	...	...	...	...	...	1	...	...	14	...	...	...	1	...	
Hardoi	614	...	2	1	...	82	138	53	1	...	5	30	119	...	...	...	4	55	...	648	...	...	...	...	...	25
		...	...	...	...	...	1	...	2	...	1	...	8	...	...	...	...	...	...	16	...	...	...	...	...	
Etawah	318	...	...	...	...	26	3	27	1	12	8	15	28	..	...	...	20	26	...	231	1	...	1	...	...	10
		...	...	...	...	...	...	...	1	3	...	3	2	...	...	...	1	...	...	11	...	...	...	...	...	
Mainpuri	386	...	3	...	...	202	...	...	2	10	4	23	9	...	1	...	5	23	...	366	...	...	...	...	...	11
		...	...	...	...	1	...	...	1	1	...	3	...	...	...	...	1	...	...	9	...	...	...	...	...	
Etah	376	...	...	...	...	296	5	...	1	3	11	6	22	...	...	...	133	72	...	648	...	...	...	...	...	32
		...	...	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	...	4	...	...	...	...	...	
Fatehgarh Central	2,113	225	...	1	2	770	4	...	32	36	88	441	197	...	...	...	26	199	...	2,575	2	...	2	...	...	143
		1	...	...	...	...	...	...	13	5	3	36	1	...	...	...	...	...	...	66	...	...	...	...	...	
„ District	494	34	...	1	...	271	...	...	4	8	34	119	39	1	...	...	4	72	...	766	...	1	1	...	...	26
		...	...	...	...	...	...	...	1	1	...	7	...	1	...	...	...	...	...	11	...	...	...	...	...	
Group V.—Gangetic Plain and Chutia Nagpur.	32,047	813	155	72	3	10,240	310	605	210	517	774	3,680	2,370	2	40	9	2,364	2,824	2	33,143	24	33	8	16	7	1,568
		10	93	9	...	65	24	...	90	142	28	334	105	1	2	1	150	5	1	1,296	...	...	...	4	...	
A. Shahjahanpur	463	...	...	...	...	219	...	...	2	16	22	31	17	...	1	...	32	36	...	468	...	...	...	...	...	16
		...	...	...	...	...	...	...	1	4	2	...	2	...	...	...	1	...	...	13	...	...	...	...	...	
Bareilly Central	2,497	...	...	4	...	1,526	...	...	11	69	5	45	26	...	...	...	9	381	...	2,476	...	...	...	...	...	122
		...	...	...	...	...	...	...	9	11	...	4	1	...	...	...	1	...	...	30	...	...	...	...	...	
„ District	1,069	...	...	2	...	258	19	...	11	77	24	34	48	...	32	2	38	33	...	692	1	...	...	...	...	46
		...	...	...	...	...	...	...	2	15	3	4	4	...	...	...	1	...	...	37	...	...	...	...	...	

TABLE XLIII—*continued.*

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

Jails.	Average annual strength.	1. Admissions.								2. Deaths.														Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Sloegh, and Gangrene.	All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	
Budaon	426	...	...	...	...	206	5	...	3	15	15	19	30	1	...	...	16	17	...	417	...	1	...	...	...	12
		...	...	...	...	...	...	...	2	2	1	1	...	1	...	...	1	...	...	10	...	...	...	...	...	
Aligarh	417	...	...	1	...	179	1	...	2	4	18	33	35	...	...	...	2	54	...	442	...	...	...	...	...	13
		...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Bulandshahr	277	...	...	...	...	92	1	...	...	5	14	10	1	...	...	...	5	43	...	276	...	...	...	...	...	11
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Moradabad	438	...	...	...	...	297	4	15	3	27	14	77	23	...	..	...	30	29	...	654	...	...	...	...	...	28
		...	...	...	...	1	1	...	2	1	2	9	...	...	...	...	...	...	...	20	...	...	...	...	...	
Bijnor	292	...	...	...	...	16	1	...	...	10	3	12	7	...	...	...	1	4	...	73	...	...	...	...	...	3
		...	...	...	...	...	1	...	...	...	...	2	2	...	...	...	...	...	...	0	...	...	...	...	...	
Dehra Dun	87	...	...	...	...	17	2	...	1	...	1	8	12	...	...	...	4	2	...	61	...	...	...	...	...	5
		...	...	...	...	2	...	...	...	...	...	2	2	...	...	...	...	...	...	8	...	...	...	...	...	
Saharanpur	344	...	1	...	...	84	...	...	3	4	9	28	7	...	...	...	1	49	...	279	...	...	...	16	...	14
		...	...	...	...	...	...	...	...	2	1	3	1	...	...	...	...	...	...	8	...	...	...	...	...	
Muzaffarnagar	221	...	...	1	1	124	...	...	...	10	5	31	15	...	...	...	5	20	...	264	...	...	1	...	...	11
		...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	4	...	...	...	...	...	
Meerut	711	51	...	...	1	691	13	52	4	10	17	143	73	...	...	...	27	47	...	1,255	...	...	...	...	...	33
		3	...	...	...	7	...	...	...	5	3	12	4	...	...	...	2	...	...	40	...	...	...	...	...	
Delhi	518	...	...	...	...	494	1	...	2	22	7	20	49	...	...	...	4	68	...	733	...	...	1	...	...	13
		...	...	...	...	...	1	...	...	9	...	1	1	...	...	...	...	...	...	12	...	...	...	...	...	
Rohtak	174	...	...	...	...	313	1	...	1	...	4	11	18	...	...	...	1	27	...	417	...	...	3	...	...	6
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Hissar	247	...	...	...	...	63	1	...	2	2	2	5	8	...	...	...	1	7	...	126	...	...	14	...	...	4
		...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	
Karnal	144	...	...	...	...	36	...	...	1	5	3	6	1	...	...	...	...	6	...	86	...	...	...	...	...	2
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Umballa	722	...	...	...	...	311	8	...	...	5	36	74	95	...	1	...	1	99	...	763	...	...	...	...	...	22
		...	...	...	...	...	2	...	...	1	1	5	3	...	...	...	...	...	...	14	...	...	...	...	...	
B																										
Ludhiana	262	...	...	1	...	244	...	16	...	5	1	13	8	...	1	...	2	17	...	341	...	...	1	...	...	6
		...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	5	...	...	...	...	...	
Hoshiarpur	50	...	...	...	...	17	...	...	...	1	5	2	2	...	...	...	1	14	...	65	...	...	...	...	...	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jullundur	273	25	...	...	...	60	2	...	3	3	5	17	9	...	...	...	3	25	...	197	...	...	1	...	...	6
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Ferozepore	424	...	...	...	...	125	...	...	3	3	5	10	14	...	...	...	4	44	...	308	...	...	5	...	...	7
		...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	5	...	...	...	...	...	
Amritsar	194	...	...	...	...	98	...	...	...	1	1	2	6	...	...	...	9	35	...	187	...	...	...	...	...	4
		...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	
Lahore Central	1,419	...	...	1	...	2,014	19	2	31	9	84	210	150	...	...	...	8	270	...	3,256	...	...	9	...	...	57
		...	...	...	...	1	4	...	7	1	2	3	4	...	...	...	...	...	...	28	...	...	...	...	...	
,, District	561	...	...	...	1	435	3	...	5	12	18	105	19	...	6	...	1	53	...	758	...	...	...	...	...	23
		...	...	...	...	...	...	...	3	5	...	5	...	...	...	...	...	...	...	17	...	...	...	...	...	
,, Female	132	...	...	1	...	136	1	...	1	...	8	31	4	...	...	3	...	5	...	235	...	...	1	...	...	5
		...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	3	...	...	...	...	...	
Gurdaspur	198	...	...	...	...	25	...	...	...	3	1	4	9	...	...	...	...	2	...	75	...	...	...	...	...	3
		...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Gujranwala	331	3	...	...	...	118	...	1	3	2	6	13	21	...	...	2	6	24	...	245	...	...	...	...	...	9
		...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	3	...	...	...	...	...	
Chinawan	425	...	...	1	...	85	1	4	1	7	1	5	9	...	...	...	1	40	...	193	...	...	2	...	...	6
		...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Sialkot	379	...	...	...	...	83	1	3	1	4	4	8	12	...	...	1	4	26	...	218	...	...	2	...	...	5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	
Gujrat	82	...	...	...	...	10	...	...	...	1	5	9	1	...	...	...	5	8	...	65	...	...	...	...	...	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jhelum	248	...	...	...	...	246	7	...	2	2	3	16	19	...	...	...	1	38	...	359	...	...	5	...	...	6
		...	...	...	...	...	...	...	2	...	...	3	...	...	...	...	...	...	...	6	...	...	...	...	...	
Rawalpindi	739	3	...	1	...	808	...	31	5	31	36	107	112	...	12	...	13	199	...	1,377	2	...	5	...	...	29
		...	...	...	...	...	...	1	4	5	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	
Group VI.—Upper Sub-Himalayan	14,764	82	1	13	3	9,430	91	124	101	365	382	1,139	860	1	53	8	235	1,722	...	17,561	3	1	50	16	...	531
		3	...	...	...	11	10	1	37	76	17	59	26	1	...	...	8	...	...	306	..	...	...	...	...	

Jails.	Average annual strength.	1. Admissions. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	2. Deaths. All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	Average number constantly sick.
A																										
Peshawar	436	...	...	...	...	579	4	...	...	4	17	48	26	...	...	3	11	103	...	862	...	...	...	...	...	33
		...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	
Kohat	116	...	...	...	...	73	3	...	...	4	1	4	6	...	...	...	2	20	...	131	...	...	...	...	...	3
		...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	3	...	...	...	...	...	
Bannu	106	...	...	...	...	75	5	...	1	3	8	24	12	...	...	1	2	4	1	173	...	...	9	...	...	3
		...	...	...	...	...	1	...	1	...	2	3	...	...	...	...	...	...	...	8	...	...	...	...	...	
Shahpur	257	...	...	1	...	375	...	...	...	10	7	10	62	...	...	...	1	53	...	572	...	...	...	...	...	10
		...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Jhang	261	...	...	...	...	321	...	...	...	2	8	52	42	..	...	..	6	41	...	558	...	...	...	...	...	8
		...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1	...	6	...	...	...	...	...	
Montgomery	1,512	...	...	...	...	769	...	...	7	15	42	100	87	...	...	1	23	235	...	1,467	...	...	10	...	1	35
		...	...	...	...	1	...	...	3	3	2	4	...	...	...	...	3	...	...	21	...	...	...	...	...	
Mooltan Central	939	...	...	...	2	937	...	...	...	20	53	79	60	...	...	...	46	146	...	1,601	1	...	6	...	...	50
		...	...	...	...	...	...	...	...	5	1	5	1	...	...	...	2	...	...	16	...	...	...	...	...	
,, District	679	...	...	...	...	169	2	...	2	18	14	14	3	...	...	...	1	11	...	270	...	...	4	...	...	8
		...	...	...	...	...	1	..	2	4	...	...	1	...	...	...	...	...	...	9	...	...	...	...	...	
Dera Ismail Khan	392	...	...	...	..	219	13	...	...	5	10	9	9	...	...	...	3	49	...	375	...	...	23	...	...	9
		...	...	...	...	...	1	...	...	3	...	...	1	...	...	...	...	...	...	5	...	...	...	...	...	
Dera Ghazi Khan	366	...	...	...	...	375	...	...	1	11	12	10	40	...	...	...	12	33	...	564	...	...	...	...	...	11
		...	...	...	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	5	...	...	...	...	...	
C																										
Shikarpur	462	...	...	6	...	60	2	...	...	39	15	10	14	...	...	6	5	19	...	220	...	...	...	...	..	10
		...	...	...	...	...	...	...	...	18	...	1	...	...	...	...	1	...	...	21	...	...	...	...	...	
Sind Gang	276	30	...	...	..	14	21	19	...	55	21	4	12	...	3	...	3	3	...	214	...	...	...	...	...	7
		12	...	...	...	...	3	...	...	21	...	...	...	...	...	...	2	...	...	41	...	...	...	...	...	
Hyderabad	638	...	...	...	2	201	1	...	2	11	20	5	52	...	...	3	62	109	...	664	1	...	1	...	...	23
		...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	
Kurrachee	272	...	...	...	..	117	1	...	5	1	12	12	10	...	...	...	10	16	...	256	...	...	...	...	...	13
		...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	6,712	30	..	7	4	4,284	52	19	18	198	240	381	435	...	3	14	187	842	1	7,927	2	...	53	...	1	223
		12	...	...	1	4	8	...	7	63	5	14	5	...	..	...	9	1	...	152	...	...	...	...	...	
A																										
Rajkot	92	...	...	...	..	28	...	1	...	1	1	3	2	...	...	...	...	10	...	71	..	...	1	...	...	2
		...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
Ahmedabad	1,002	...	...	...	...	308	...	1	18	43	61	125	32	...	...	1	11	75	...	901	1	...	11	...	...	24
		...	...	...	...	...	...	...	8	8	...	2	...	...	...	...	...	...	...	22	...	...	...	...	...	
B																										
Ajmere	293	...	...	...	...	28	...	...	...	2	4	7	...	...	1	...	...	7	...	74	...	...	2	...	...	4
		...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	
Muttra	305	...	...	...	...	122	1	...	2	6	9	27	5	...	...	...	9	20	...	290	...	...	...	...	...	15
		...	...	...	...	...	...	...	1	2	...	3	...	...	...	...	...	...	...	7	...	...	...	...	...	
Agra Central	2,458	...	...	...	...	850	1	...	18	37	58	148	185	...	...	...	58	138	...	2,227	...	...	...	...	...	102
		...	...	...	...	...	...	...	7	6	3	29	6	...	...	...	...	...	...	60	...	...	...	...	...	
,, District	701	...	1	...	...	294	1	...	5	21	22	34	65	...	...	...	19	97	...	712	...	...	2	...	...	44
		...	...	...	...	1	...	...	1	3	1	5	4	...	...	...	...	...	...	18	...	...	...	...	...	
Jhansi	285	...	...	...	...	50	...	...	1	3	1	33	22	...	...	...	11	32	...	214	...	...	...	...	...	11
		...	...	...	...	...	...	...	1	...	...	5	4	...	...	...	...	...	...	11	...	...	...	...	...	
Group VIII.—S. E. Rajputana, Central India, and Gujarat.	5,136	...	1	...	...	1,680	3	2	44	113	156	377	311	...	1	1	108	379	...	4,489	1	...	16	...	...	202
		...	...	...	...	1	...	...	18	21	4	45	14	...	...	...	...	...	...	123	...	...	...	...	...	

TABLE XLIII—*continued.*

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS.	Average annual strength.	1. ADMISSIONS. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	2. DEATHS. Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	Average number constantly sick.
A																										
Damoh . .	210	...	...	...	...	37	2	...	...	2	11	168	2	...	...	...	6	21	1	382	1	...	35	...	...	19
		...	...	...	...	...	1	...	...	...	2	37	...	...	...	...	...	...	1	57	...	...	...	...	...	
Saugor . .	397	...	...	...	...	174	3	...	5	19	16	141	126	...	7	27	69	55	...	846	...	...	...	...	...	39
		...	...	...	...	...	...	...	2	4	1	62	16	...	2	...	3	...	...	103	...	...	...	...	...	
Jubbulpur .	1,596	...	...	...	...	360	...	...	2	30	25	373	41	...	7	...	52	221	1	1,828	5	2	5	...	...	91
		...	...	...	...	...	...	...	2	14	2	110	...	...	...	...	2	...	1	141	...	...	...	...	...	
Narsinghpur .	230	...	...	...	...	91	1	...	8	5	14	60	42	...	...	39	65	76	...	519	...	...	...	...	...	18
		...	...	...	...	...	...	...	6	3	...	19	1	...	...	...	...	...	...	37	...	...	...	...	...	
Mandla . .	224	...	6	...	...	35	23	...	...	11	12	75	36	...	...	9	17	61	...	398	...	...	...	...	...	17
		...	4	...	...	...	7	...	...	9	2	41	...	...	...	...	1	...	...	68	...	...	...	...	...	
Bilaspur . .	625	...	19	3	...	88	...	...	3	9	8	218	44	...	...	...	592	40	...	1,449	...	...	...	...	...	127
		...	12	1	...	...	...	...	3	8	2	103	4	...	...	...	46	...	...	212	...	...	...	...	...	
Sambalpur .	260	...	8	14	...	10	3	...	1	5	1	38	13	...	...	...	6	3	...	123	...	...	...	...	...	6
		...	8	...	...	...	...	...	1	3	...	9	6	...	...	...	...	...	...	32	...	...	...	...	...	
Raipur . .	1,036	...	...	1	...	70	...	...	10	11	13	99	60	...	1	33	7	69	1	712	2	...	...	...	...	47
		...	...	...	...	1	...	...	10	3	...	25	8	...	1	...	5	...	1	64	...	...	...	...	...	
Balaghat .	164	...	4	...	...	10	...	1	4	10	...	23	121	...	...	...	12	6	...	208	...	...	...	...	...	9
		...	...	...	...	...	...	...	4	3	...	2	68	...	...	...	3	...	...	87	...	...	...	...	...	
Seoni . .	185	...	4	...	...	56	5	1	1	11	17	171	81	...	...	...	1	41	1	434	...	...	...	...	...	14
		...	2	...	...	...	...	...	1	...	...	32	11	...	...	...	...	...	1	48	...	...	...	...	...	
Chhindwara .	195	...	...	...	...	51	1	11	...	10	2	1	24	...	...	...	28	19	...	249	...	...	...	...	...	9
		...	...	...	...	...	...	1	...	3	...	1	1	...	...	...	4	...	...	23	...	...	...	...	...	
Hoshangabad .	327	...	...	3	...	60	...	...	1	7	13	42	52	...	...	42	24	43	...	343	...	...	...	...	...	14
		...	...	...	...	2	...	...	1	5	3	7	9	...	...	1	5	...	...	37	...	...	...	...	...	
Nimar . .	117	...	...	...	...	22	...	...	...	1	1	19	30	...	...	...	2	6	...	92	...	...	3	...	...	4
		...	...	...	...	...	...	...	...	1	...	...	4	...	...	...	...	1	...	7	...	...	...	...	...	
Betul . .	148	...	4	...	...	20	3	...	...	5	2	113	5	...	...	...	1	4	...	175	...	...	...	...	...	5
		...	2	...	...	...	1	...	...	2	1	15	...	...	...	...	...	...	...	22	...	...	...	...	...	
Nagpur . .	1,269	...	5	...	3	371	2	...	7	4	11	90	146	...	...	43	3	57	...	844	...	...	1	...	...	34
		...	3	...	3	...	2	...	3	2	1	7	7	...	...	...	2	...	...	38	...	...	...	...	...	
Bhandara .	178	...	1	...	...	47	...	35	1	2	10	24	48	...	...	...	15	7	...	311	...	...	...	...	...	17
		...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	4	...	...	...	...	...	
Wardha . .	95	...	...	...	...	63	2	3	...	1	...	20	21	...	...	...	5	9	...	153	...	...	...	...	...	6
		...	...	...	...	...	...	...	...	1	...	7	...	...	...	...	...	...	...	8	...	...	...	...	...	
Chanda . .	139	...	...	...	1	23	...	...	...	1	...	3	6	...	...	...	2	5	...	56	...	...	...	...	...	2
		...	...	...	1	1	...	...	...	...	...	2	3	...	...	...	1	...	...	11	...	...	...	...	...	
Sironcha .	6	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
B																										
Secunderabad	105	...	...	...	...	11	...	...	...	2	1	6	3	1	...	...	...	8	...	51	...	...	3	...	...	2
		...	...	...	...	...	...	...	...	1	...	2	...	1	...	...	...	...	...	4	...	...	...	...	...	
Yeotmahl .	140	1	...	...	...	13	2	7	6	1	4	7	12	...	...	...	6	9	...	95	...	1	...	...	...	3
		...	...	...	...	...	1	...	2	...	...	1	1	...	...	...	...	...	...	6	...	...	...	...	...	
Amraoti . .	611	...	1	1	...	91	2	...	...	17	10	10	26	...	1	...	15	42	...	320	...	...	1	...	...	9
		...	...	...	...	...	...	...	...	5	2	3	2	...	...	...	...	...	...	16	...	...	...	...	...	
Ellichpur .	85	...	...	...	...	73	...	...	...	1	1	2	4	...	...	...	2	6	...	101	...	...	...	...	1	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	
Akola . .	651	...	1	...	...	106	...	16	2	7	18	20	13	...	4	10	37	20	...	369	...	1	3	...	...	12
		...	1	...	...	1	...	...	1	2	2	3	...	...	...	4	7	...	...	30	...	...	...	...	...	
Basim . .	161	...	...	...	...	11	...	1	...	...	2	8	2	...	...	...	...	1	...	37	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	6	...	...	...	...	...	
Buldana . .	145	...	...	...	...	27	...	3	1	2	3	2	4	...	...	...	5	5	...	72	...	...	4	...	...	3
		...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Dhulia . .	508	...	3	...	...	54	...	...	...	5	3	52	16	...	4	9	2	19	...	206	...	...	10	...	...	9
		...	1	...	...	...	...	...	...	3	...	5	...	...	...	2	...	...	...	12	...	...	...	...	...	
Nasik . .	61	...	2	...	...	6	...	...	...	1	...	14	15	...	...	...	3	1	...	54	...	...	2	...	...	1
		...	1	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	4	...	...	...	...	...	
Yerrowda .	1,775	...	1	...	...	617	...	...	7	7	52	47	113	...	...	1	15	210	1	1,768	1	...	69	...	...	54
		...	1	...	...	...	...	...	5	4	2	...	3	...	...	...	1	...	1	27	...	...	...	...	...	
Bijapur District	289	...	...	...	...	127	2	...	...	...	4	10	6	...	...	...	2	15	...	246	...	...	31	...	...	6
		...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	
Deccan Gang .	292	...	...	...	...	139	2	...	...	...	13	33	47	...	...	2	6	22	...	368	4	...	5	...	...	10
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Dhatwar .	374	...	1	...	...	64	...	1	2	1	11	16	12	...	...	2	1	6	...	162	...	1	20	...	...	7
		...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	
GROUP IX.—DECCAN	12,598	1	60	22	4	2,927	53	79	61	188	278	1,905	1,172	1	24	217	1,001	1,107	5	12,972	13	5	192	...	1	597
		...	35	1	4	5	13	1	41	78	23	498	147	1	3	7	81	1	5	1,114	...	...	...	...	...	

Jails.	Average annual strength.	1. Admissions.																			2. Deaths.								Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.				
Thana	816	...	63	...	...	283	170	2	12	6	44	109	144	...	...	1	35	35	1	1,056	...	...	18	...	...			38
		...	37	...	...	...	20	...	4	1	5	14	14	...	...	1	...	...	...	97	...	...	...	...	...			
Bombay Common.	305	...	...	...	...	17	...	...	4	2	3	11	20	...	...	...	...	4	...	92	...	...	...	...	...			3
		...	...	...	...	...	...	...	4	...	...	...	5	...	...	...	...	...	...	16	...	...	...	...	...			
,, House of Correction.	255	...	1	...	...	29	5	...	4	4	6	26	5	...	...	...	...	4	...	139	...	...	...	...	...			7
		...	1	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	22	...	...	...	...	...			
Ratnagiri	191	...	...	...	...	15	1	1	1	...	1	4	4	...	...	14	3	3	...	89	...	...	...	...	...			9
		...	...	...	...	...	...	...	1	...	...	...	3	...	...	1	...	...	...	8	...	...	...	...	...			
Karwar	110	...	...	...	...	7	...	...	...	...	4	11	1	...	...	1	...	3	...	37	...	...	...	...	...			1
		...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...			
Mangalore	121	...	...	...	15	14	5	5	1	...	1	11	1	...	...	...	...	1	...	75	...	2	...	...	...			3
		...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...			
Cannanore	608	...	3	1	...	...	1	28	...	5	37	18	...	...	5	2	5	9	...	339	...	11	...	26	8			21
		...	2	1	...	...	...	...	1	1	1	1	...	...	...	1	...	...	...	21	...	...	...	5	...			
Group X.—Western Coast.	2,406	...	67	1	15	365	182	36	22	17	96	190	175	...	5	18	43	59	1	1,847	...	13	18	26	8			82
		...	40	1	5	...	21	...	10	4	6	16	22	...	...	3	...	...	...	170	...	...	...	5	...			
A Bellary	366	...	...	1	...	59	...	...	4	1	7	32	...	...	...	...	2	5	...	275	...	1	15	...	...			9
		...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...			
Salem	528	4	...	...	...	8	...	28	5	4	8	26	...	...	...	...	...	7	...	161	...	...	16	...	...			6
		...	...	...	...	...	...	...	2	...	1	1	...	...	...	...	...	...	...	5	...	...	...	...	...			
Coimbatore	863	...	280	...	...	29	...	25	26	4	20	84	...	...	...	...	...	11	...	688	...	9	2	...	...			25
		...	111	...	...	...	...	...	6	2	...	15	...	...	...	...	...	...	...	146	...	...	...	...	...			
B Palamcottah	336	...	2	...	...	1	1	38	3	2	13	15	...	...	...	...	3	24	...	205	...	3	4	...	...			9
		...	1	...	...	...	1	...	1	1	...	...	...	...	...	...	1	...	...	6	...	...	...	...	...			
Madura	339	...	2	...	...	43	2	20	2	2	15	26	...	...	...	...	...	3	...	174	...	...	4	...	...			7
		...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	8	...	...	...	...	...			
Trichinopoly	790	...	...	...	...	187	2	...	17	...	27	20	8	...	...	...	6	57	...	426	...	1	19	...	...			16
		...	...	...	...	1	1	...	4	...	1	1	...	...	...	...	1	...	...	16	...	...	...	...	...			
Tanjore	334	...	...	...	...	8	...	19	3	3	10	15	...	...	...	...	3	7	...	150	...	...	1	...	...			8
		...	...	...	...	...	...	...	1	1	...	3	...	...	...	...	...	...	...	8	...	...	...	...	...			
Cuddalore	429	...	...	...	...	13	...	...	5	...	2	24	...	...	...	1	...	30	...	182	1	1	5	...	...			11
		...	...	...	...	...	...	...	1	...	...	4	...	...	...	...	...	...	...	7	...	...	...	...	...			
Vellore	1,058	...	22	...	1	218	...	86	16	9	22	116	51	...	...	...	4	81	...	981	...	...	9	...	1			34
		...	6	...	1	...	...	...	5	3	...	3	...	...	...	...	...	...	...	26	...	...	...	...	...			
Madras Debtors', (natives)	35	...	...	...	...	5	...	1	...	...	1	1	...	...	...	...	1	...	...	16	...	...	...	...	...			...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Madras Penitentiary, (natives)	815	...	2	...	...	30	...	108	10	6	47	19	40	...	...	...	15	63	...	626	...	...	4	...	...			23
		...	1	...	...	...	...	...	4	1	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...			
Madras Penitentiary, (Europeans)	15	...	...	...	...	2	...	...	1	1	3	...	...	...	...	...	...	...	...	21	...	...	...	...	...			1
		...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...			
Madras Debtors', (Europeans)	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Nellore	113	...	...	...	...	2	...	27	...	...	6	3	4	...	...	...	...	7	...	70	...	1	2	...	...			2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
C Rajamundry	1,016	...	201	...	...	441	...	29	26	18	80	201	...	...	1	2	4	72	...	2,077	3	71	19	166	...			87
		...	76	...	...	3	...	...	4	7	...	5	...	...	...	...	...	...	...	125	...	1	...	4	...			
Vizagapatam	356	...	8	...	...	31	...	15	5	13	6	20	21	...	...	3	...	6	...	214	2	...	1	...	...			10
		...	4	...	...	1	...	...	1	5	...	7	...	...	...	...	...	...	...	21	...	...	...	...	...			
Berhampur	162	...	7	3	...	14	...	18	2	1	6	29	...	...	...	...	1	20	...	187	1	...	...	...	...			5
		...	5	2	...	...	...	...	...	1	...	13	...	...	...	...	...	...	...	25	...	...	...	...	...			
Group XI.—Southern India.	7,555	4	524	4	1	1,091	5	414	125	64	273	631	124	...	1	6	39	393	...	6,453	7	87	101	166	1			253
		...	204	2	1	6	3	...	31	21	3	52	...	...	...	...	2	...	...	409	...	1	...	4	...			

TABLE XLIII—*continued.*

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

Jails and Administrations.	Average annual strength.	1. Admissions. Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer and Boil.	Phagedæna, Slough, and Gangrene.	2. Deaths. All Causes.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.	Average number constantly sick.
Shillong .	40	...	...	...	...	11	...	...	...	...	...	10	10	...	...	...	...	...	...	36	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Darjeeling .	85	...	...	...	...	34	...	...	1	2	4	11	11	...	...	...	1	6	...	88	3	...	...	...	...	2
		...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
Almora . .	91	...	...	...	...	6	1	1	...	2	1	4	1	...	...	...	1	2	...	34	...	...	...	...	...	3
		...	...	...	...	1	1	...	...	...	1	1	...	...	...	...	...	...	...	5	...	...	...	...	...	
Simla . .	13	...	...	...	...	8	2	...	...	...	...	...	...	...	...	...	...	2	...	19	...	...	...	...	...	...
		...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dharmsala .	103	...	...	...	...	52	2	...	1	8	6	23	52	...	...	...	1	18	...	206	...	...	...	...	...	5
		...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Abbottabad .	83	...	...	...	...	29	...	...	1	...	...	4	7	...	...	...	...	18	...	78	...	...	...	...	...	2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Quetta . .	44	...	...	...	...	10	...	8	...	...	4	4	6	...	...	1	...	7	...	55	...	...	...	...	...	1
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Merçara .	79	...	...	...	...	10	1	1	...	...	...	5	7	...	...	...	...	3	...	38	...	...	...	...	...	1
		...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	
Russellkonda .	65	...	4	...	...	8	...	4	2	1	1	15	...	...	...	...	...	14	...	69	...	...	...	...	...	2
		...	3	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	6	...	...	...	...	...	
Group XII.—Hills.	603	...	4	...	...	168	6	14	5	13	16	76	94	...	...	1	3	70	...	623	3	...	...	...	...	17
		...	3	...	...	2	2	...	3	1	1	2	1	...	...	...	...	...	...	17	...	...	...	...	...	
Extra India: Aden .	49	...	...	...	...	2	...	...	...	...	...	3	...	...	...	...	...	1	...	6	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
INDIA† (a) * Remaining from 1896	118,107	9	1	6	...	669	61	40	91	160	222	374	115	...	5	20	315	455	1	3,749	...	4	4	2	...	4,865
Admitted .		987	959	124	34	44,110	1,083	2,899	818	1,842	3,579	13,470	7,624	12	166	310	4,601	10,883	11	123,394	64	148	438	230	20	
Died .		25	465	14	15	126	127	4	349	501	120	1,307	374	6	10	13	278	7	6	4,577	...	1	...	13	...	
* Died out of hospital .		...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	...	...	...	44	...	...	...	...	...	
Andamans .	10,590	...	...	...	...	9,316	174	224	56	37	786	952	472	..	15	6	357	1,813	...	17,723	...	...	...	1	..	532
		...	...	...	...	2	30	...	48	20	13	99	12	...	2	1	12	...	...	288	...	...	...	...	...	
Burma . .	13,439	45	108	4	4	1,175	42	622	79	103	284	786	488	5	...	2	76	1,238	...	8,003	4	7	...	...	1	387
		...	70	1	4	4	7	...	32	25	6	70	23	2	...	...	7	...	...	324	...	...	...	...	...	
Assam . .	1,233	...	13	...	...	492	6	1	4	8	21	279	146	...	...	1	44	39	...	1,268	...	2	...	5	1	64
		...	7	...	...	9	1	...	...	2	2	12	5	...	...	...	3	...	...	57	...	...	...	...	...	
Bengal. .	18,343	20	99	14	...	5,670	210	1,217	140	280	476	4,351	1,818	3	27	29	260	748	3	19,171	19	28	...	1	1	671
		...	60	2	...	41	16	2	61	68	16	192	36	1	5	2	16	...	1	628	...	...	...	1	...	
N.-W. Provinces and Oudh	35,890	856	84	67	5	12,586	309	215	230	774	813	3,138	2,122	3	70	9	2,517	3,482	1	36,309	16	6	11	31	6	1,798
		13	46	7	...	54	19	...	88	177	42	329	113	2	...	...	146	5	...	1,272	...	...	...	3	...	
Punjab . .	12,783	31	...	6	3	9,702	76	57	74	218	413	1,045	972	...	20	11	173	1,740	1	17,080	3	...	101	...	1	394
		...	...	...	...	5	13	1	27	55	9	34	15	...	...	...	8	1	...	209	...	...	...	...	...	
Bombay .	7,767	30	71	6	2	2,088	205	25	55	176	271	495	505	...	7	40	158	555	2	6,569	7	1	168	...	...	224
		12	41	...	1	...	25	...	23	61	7	25	28	...	...	4	4	...	1	289	...	...	...	...	...	
Berar and Secunderabad.	1,898	1	2	1	...	332	4	27	9	30	39	55	64	1	5	10	65	91	...	1,045	...	2	11	...	1	32
		...	1	...	...	1	1	...	3	8	5	12	3	1	...	4	8	...	...	66	...	...	...	...	...	
Central Provinces.	7,401	...	51	21	4	1,588	45	51	43	144	156	1,678	899	...	15	193	907	743	4	9,123	8	2	44	...	...	478
		...	31	1	4	4	11	1	33	62	16	479	138	...	3	1	72	1	4	999	...	...	...	...	...	
Madras. .	8,349	4	531	5	16	1,113	11	451	128	70	312	675	125	...	6	8	44	417	...	6,936	7	100	101	192	9	279
		...	209	3	6	6	3	...	34	22	4	54	...	...	...	1	2	...	...	441	...	1	...	9	...	
Non-British Jails:—																										
Sadra . .	41	...	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	1	...	10	...	...	...	...	...	...
		...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	
Kolhapur .	210	...	...	...	...	25	...	83	...	5	...	19	6	...	...	21	...	4	...	193	...	...	8	...	...	5
		...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	4	...	...	...	...	...	
Savantvadi .	41	...	...	...	...	...	2	1	...	...	...	7	3	...	...	...	...	...	...	15	...	...	...	...	...	1
		...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	

* Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases.

† Including Ajmere, Quetta, and Mercara.

(a) Including the subsidiary jails, the total figures are :—

Average strength.	Average constantly sick.	Number of deaths.	Number of admissions.
123,707	4,983	4,754	127,217

Geographical Groups.	1. Average Strength. 2. Constantly sick.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year.
Group I.—Burma Coast and Bay Islands.	1.	20,198	20,040	20,001	20,033	20,059	19,337	18,671	18,759	18,849	19,007	18,947	19,091	19,414
	2.	676	629	660	693	851	1,018	1,141	972	809	775	772	741	812
Group II.—Burma Inland	1.	4,846	4,844	4,764	4,723	4,762	4,588	4,298	4,396	4,523	4,551	4,575	4,496	4,611
	2.	97	102	105	115	108	114	102	107	113	100	108	110	107
Group III.—Assam	1.	1,355	1,248	1,292	1,309	1,344	1,234	1,057	1,080	1,114	1,117	1,115	1,123	1,193
	2.	37	42	44	46	60	72	102	70	75	77	69	51	63
Group IV.—Bengal and Orissa	1.	10,632	10,732	10,856	11,008	11,444	11,120	10,245	10,838	11,359	11,346	11,345	11,264	11,019
	2.	399	396	418	396	374	348	389	432	445	425	443	424	410
Group V.—Gangetic Plain and Chutia Nagpur.	1.	31,826	33,206	33,527	33,128	33,141	31,701	29,197	31,799	32,946	32,639	31,454	30,142	32,047
	2.	1,330	1,453	1,472	1,537	1,469	1,318	1,354	1,695	1,916	1,985	1,732	1,512	1,568
Group VI.—Upper Sub-Himalayan.	1.	14,475	14,707	15,127	15,559	15,395	15,073	13,966	14,507	15,004	14,790	14,485	14,089	14,764
	2.	493	441	465	491	440	386	411	500	627	792	674	646	531
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	1.	6,491	6,439	6,449	6,475	6,474	6,415	6,284	6,824	7,014	7,216	7,206	7,205	6,712
	2.	203	177	147	152	156	161	168	210	272	304	379	332	223
Group VIII.—S.-E. Rajputana, Central India, and Gujarat.	1.	4,787	5,062	5,141	5,216	5,290	5,233	4,700	5,084	5,278	5,265	5,316	5,356	5,136
	2.	151	133	140	134	155	161	161	170	214	315	353	337	202
Group IX.—Deccan	1.	11,078	11,468	11,703	12,080	12,367	12,495	12,198	13,756	14,381	14,102	13,324	12,188	12,598
	2.	300	371	397	390	427	486	460	731	874	856	941	880	597
Group X.—Western Coast	1.	2,282	2,235	2,270	2,359	2,373	2,334	2,307	2,398	2,533	2,621	2,557	2,587	2,406
	2.	117	124	97	73	56	64	73	105	87	78	68	63	82
Group XI.—Southern India	1.	7,590	7,696	7,613	7,630	7,536	7,203	6,887	7,370	7,761	7,726	7,892	7,792	7,555
	2.	194	190	270	265	247	222	203	199	309	326	292	305	253
Group XII.—Hills.	1.	602	620	589	645	618	617	564	589	604	547	597	650	603
	2.	12	16	19	24	17	18	16	18	14	18	16	18	17
INDIA*	1.	115,118	118,343	119,383	120,298	120,964	117,440	110,425	117,452	122,414	120,964	118,756	115,915	118,107
	2.	4,009	4,074	4,234	4,316	4,360	4,368	4,580	5,210	5,755	6,051	5,846	5,419	4,865

Administrations.	1. Average Strength. 2. Constantly sick.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year.
Andamans	1.	10,800	10,779	10,818	12,807	10,807	10,359	10,376	10,440	10,401	10,461	10,473	10,560	10,590
	2.	388	384	409	434	587	709	807	649	524	513	504	481	538
Burma	1.	14,244	14,105	13,947	13,949	14,014	13,566	12,593	12,715	12,971	13,057	13,049	13,027	13,435
	2.	385	347	356	374	372	423	436	430	398	362	376	370	387
Assam	1.	1,295	1,284	1,329	1,370	1,391	1,279	1,095	1,116	1,152	1,156	1,158	1,168	1,233
	2.	37	42	45	48	62	75	104	72	77	78	69	51	64
Bengal	1.	17,608	17,961	18,196	18,512	19,050	18,583	17,154	18,243	18,963	18,766	18,607	18,406	18,343
	2.	592	615	674	660	607	567	641	738	759	755	721	665	671
N.-W. P. and Oudh	1.	35,353	36,808	37,304	37,212	37,108	35,603	32,834	35,741	37,044	36,581	35,292	33,880	35,890
	2.	1,598	1,831	1,830	1,707	1,619	1,458	1,472	1,826	2,120	2,366	2,169	1,940	1,798
Punjab	1.	12,435	12,667	12,941	13,150	13,049	12,704	12,005	12,516	12,853	13,097	13,055	12,951	12,785
	2.	282	266	269	289	317	298	314	380	526	624	619	563	394
Bombay	1.	7,481	7,366	7,421	7,504	7,606	7,603	7,063	7,695	8,328	8,582	8,321	8,140	7,767
	2.	271	261	219	182	161	175	204	243	253	248	230	234	224
Berar and Secunderabad	1.	1,709	1,738	1,759	1,865	1,855	1,837	1,779	1,991	2,082	2,136	2,056	1,967	1,898
	2.	27	20	21	24	27	22	21	33	41	45	50	30	32
Central Provinces	1.	6,303	6,682	6,926	7,172	7,425	7,515	7,527	8,435	8,614	8,045	7,479	6,613	7,401
	2.	205	278	304	300	333	392	348	605	726	699	781	739	478
Madras	1.	8,360	8,462	8,335	8,347	8,254	7,932	7,631	8,127	8,582	8,598	8,821	8,767	8,349
	2.	220	225	304	292	270	244	229	289	335	350	317	327	279
INDIA†	1.	115,118	118,343	119,383	120,298	120,964	117,440	110,425	117,452	122,414	120,964	118,756	115,915	118,107
	2.	4,009	4,074	4,234	4,316	4,360	4,368	4,580	5,210	5,755	6,051	5,846	5,419	4,865

* Including Aden.

† Including Ajmere, Quetta, and Mercara.

TABLE XLIV.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Moulmein	Burma	There was no overcrowding. The main sleeping barracks from their shape and construction are not well ventilated and the wards are too broad. The work-sheds are very stuffy, especially in hot sultry weather when hardly a breath of air percolates them. This is due to their lowlying position. The surroundings of the jail are eminently faulty. It is situated (the work-yard especially) on very low ground, where the sub-soil water is permanently high. The chief and most important causes of the unhealthiness of this jail are its damp site, and, to a lesser extent, its close proximity to a crowded native quarter. The chief diseases causing the high mortality both in this and former years were dysentery, diarrhœa, tuberculosis, and cholera. There is no doubt that all these diseases have a more or less intimate connection as regards their incidence with a faulty state of the sub-soil water, arising from a lowlying site insusceptible to drainage. When to this are added faulty ventilation and insanitary surroundings, with the depressing effect of jail life upon sick men, the mortality is easily explained. It has been particularly noticed that when men were camped outside, at cholera time, there was a remarkable absence in them of the ordinary prevalence of dysentery of the form so common in this jail. The cause of the outbreak of cholera during the year could not be traced. The first man attacked had never been outside the jail since sentenced five years previously, but cholera was epidemic in the town of Moulmein at the time. A drain to the west side of the work-yard enclosure which had always been in a bad sanitary condition was rivetted with stone, and a stone flooring, filled in with concrete and giving a rounded bottom, was constructed. At the same time, the emptying into this drain during the dry season of the contents of a filthy *dhobies'* drain close by was prohibited. An ejector for night-soil was erected during the year and brought into use. Owing to the reduction in numbers and status of this jail, it has been proposed to remove the central portion of the main sleeping barracks, thus making three buildings separated about 40 yards from each other. This arrangement will undoubtedly improve ventilation. There is no doubt that in this jail many men, however carefully treated, both medicinally and dietetically, pursue a steady downward course, when attacked with dysenteric affections. Men also are sent out of hospital apparently thoroughly cured, and having regained their normal weight and health, only to return after some weeks or months with an intractable, and often fatal, form of chronic dysentery, shown on the post-mortem table to be due to extensive ulceration of the large bowel. Many of these cases are associated with pulmonary tuberculosis. Hill races, *viz.*, *Karens*, *Thaungthoos* and *Shans* undoubtedly suffer more severely than other classes.
Kyaukpyu	„	Overcrowding lasted for five months, *i.e.*, May to September. Wards Nos. 1, 2, and 4 to 7 were slightly overcrowded. The sickness and mortality were due to the opium habit, and to malaria which is endemic. The percentage of opium-eaters and smokers is over half the total number of admissions. There were 19 deaths from dysentery alone, and every case was that of a confirmed opium-eater or smoker. The little energy possessed by those addicted to the habit is generally at a low ebb after admission; and, when the accustomed supply of the drug is suddenly cut off, contemporaneously with a change of life from indolence to comparative activity, should a sequela of the opium habit (dysentery or diarrhœa) suddenly supervene, their stamina is such that their constitutions are not able to withstand the drain, and they rapidly succumb. The jail well has been disinfected frequently during the year with permanganate of potash. Since October the well water is boiled for use after being disinfected. The food arrangements are personally supervised as to cooking, and as to the cleanliness of vessels and utensils. The clothing of prisoners is also attended to.
Minbu	„	There was no overcrowding. There are no wells in Minbu, the water for all purposes being obtained from the river Irrawaddy. When the river is in flood, the water, though muddy, is, after the clay, etc., have been deposited, very good and wholesome. In the dry season a tank forms in front of Minbu, cut off from the main river by a huge sand bank. Although so cut off, it still receives a small stream from the main river. This stream, however, is too small to renovate the water in this basin, and it is consequently more or less stagnant. For the last two months of 1897 water for the jail was obtained from the Sabwet creek, shallow wells being dug in the bed. The water is subjected to boiling, and mud, etc., are precipitated by alum, before use. A scheme for improving the water-supply for Minbu is in the hands of the Public Works Department, but it will be years probably before its fulfilment is seen. The causes of sickness and mortality were malaria, chills, accidents, glare and sand, contagion and infection.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Pagan	Burma	There was no overcrowding. The river water, which is ample and pronounced fit for drinking, is used. But in the rainy months it is somewhat muddy and polluted, necessitating its being boiled and filtered. The jail well water, which contains solids in excessive quantities, is only used for ablutionary and horticultural purposes. The sickness and mortality were chiefly due to the bad state of the leper prisoners' health ; and the bulk of the sickness and mortality among them was due to the sudden changes of temperature, which affected them in their already bad state of health.
Pakokku	,,	There was overcrowding for a short time only, and this was relieved by placing a certain number of prisoners in the palisaded verandah at night, and by transfers to the Myingyan jail. There is an excess of salts in the water, which is, however, largely removed by boiling before use for drinking and cooking purposes. The causes of the increased sickness and mortality were that there was prevalence of scarcity in and about the district ; that, no doubt in consequence of this, the general health and physique of the generality of the prisoners admitted into jail during the year was poor ; and that a severe epidemic of cholera occurred in the town, and lasted for two months. This epidemic would also account for the cases of diarrhœa treated, as also for one of the five deaths that occurred. Prisoners sent in from the district were in some cases suffering from malaria.
Bhamo	,,	All the wards were overcrowded during the months of March, April and May. The sickness and mortality were due to previous indifferent and bad health, anæmia from previous attacks of malarial fever, privations in food and clothing, and the opium habit.
Katha	,,	Overcrowding lasted for 57 days altogether ; but it was for a few days at a time, on five or six occasions. There was overcrowding in ward No. 1, in the hospital, and in the under-trial ward. There is a *jheel* to the south and west of the jail. Sickness and mortality were chiefly due to malaria from the existence of lowlying grounds in the immediate vicinity of the jail, to the dense jungle-growth all round, and, to a minor extent, to deterioration of the well water in the rains, the result of heavy floods, and to the occasional unavoidable exposure of individual prisoners to wet or cold.
Cachar	Assam	In June there was overcrowding for some days, which was remedied by the release of some convicts on the occasion of the queen's jubilee. There was slight overcrowding in almost all the wards for male prisoners. In July ward No. 4, which has accommodation for 23 convicts, was rebuilt, and the overcrowding was remedied thereby. The excreta from the jail are now carried to the cinerator and burnt. The diet has been good, sufficient, and well cooked. The increased scale of diet sanctioned by the Chief Commissioner has been in force since 24th November, 1897. The water for drinking purposes is now obtained from the military police well, and is boiled and filtered. That for cooking purposes is obtained from the Brahmo Samaj tank, of which the water is good and sufficient, but liable to contamination. The prevailing diseases amongst the prison population were ague, dysentery, and diarrhœa, due to climatic causes. Of the men affected, most were suffering from the diseases on admission into jail. They are usually *coolies* of poor physique, and have often been deserters, living any how and any where, and half starved.
Dibrugarh	,,	No overcrowding. The ventilation in the solitary cells is considered insufficient. There are no sanitary defects in diet since the new revised scale came into use on 25th November 1897, except that vegetables are scarce at the end of the rains. As regards the water-supply, the filtering arrangements require improvement. Sickness and mortality were due to malaria and ill feeding. Most prisoners are received into jail in a weakly, anæmic, or poorly-nourished, condition. The recommendations made during the year were to issue an extra suit of clothing to all convicts during the rainy season, and to provide the solitary cells with verandahs and additional windows.
Gauhati	,,	After the earthquake, as the jail compound was flooded by water issuing from holes in the ground, the prisoners were transferred to a temporary jail, where they remained from the 22nd to the 26th June, during which time there was overcrowding, and insufficient ventilation in the necessarily small temporary sheds. They have slept in the large sleeping barracks since the 26th June, and have not been overcrowded.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Gauhati—*contd.*	Assam	During the rains the drainage is not satisfactory, and would be improved (as has been noted several times before) by making all the drains *pucca*, with a proper fall. The Executive Engineer has been requested to take levels, and estimate for a system of *pucca* drains, but no reply has as yet been received from him. In the temporary jail drainage was not satisfactory. The municipal water-works were much injured by the earthquake, and this supply was cut off from the jail from June 12th to July 26th, when the drinking water was fetched from the river. Although every effort was made to provide the prisoners with pure water, there can be little doubt that, while building the temporary jail, clearing ruins, etc., in the town, after the earthquake, the prisoners at times drank impure water, which caused the diarrhœa and cholera amongst them. The sickness and mortality have been largely due to the earthquake, which destroyed, for a time, the good sanitary condition under which the prisoners usually live. Nine out of the ten prisoners who died were admitted to hospital within six weeks of the occurrence of the earthquake. An issue of potatoes, to supplement the scanty supply of good vegetables available during the rains, was recommended; and potatoes were actually issued from May 27 to October 30th. The jail is now being rapidly rebuilt, and will be completed by about the end of March.
Dhubri	„	Overcrowding existed three days in February, 16 days in March, 30 days in April, 21 days in May, nine days in June, four days in August, 20 days in November, and 28 days in December. The surroundings are not satisfactory, as huts and a horrid tank are just outside the jail walls. The sickness and mortality were in all probability due to climatic causes.
Sylhet	„	Overcrowding lasted from September to the end of December 1897. Ward No. III was overcrowded. The work-shops were all damaged by the earthquake. Most of the drains were damaged and their levels altered. They are being repaired and reopened. The water-supply is good. The causes of sickness and mortality were fever, which was mainly due to climatic causes, such as exposure to the inclemencies of the weather after the demolition of the jail. (The low admission and death-rates were largely due to the prophylactic use of quinine and iron from 1st May to 15th November 1897); and bowel complaints, from sudden exposure to chill for want of accommodation owing to the demolition of the jail, from hard work after the earthquake, from want of good drinking water (the well with the filtering tanks having been choked up with *débris* from the fall of walls, etc, for a short time after the earthquake), and from the scarcity of fresh vegetables of anti-scorbutic properties (owing to destruction of the jail garden by the earthquake). Ten deaths (seven instantaneous and three subsequent) were caused by the fall of the jail buildings during the earthquake on the 12th June 1897. The Principal Medical Officer, Assam, recommended the supply to prisoners of vegetables of anti-scorbutic properties, the issue of lime juice to prisoners suffering from the least trace of scurvy, and the separation from the rest of the ward, by means of a partition, of the portion of the ward in which the dysentery cases are treated. Also, the Inspector General of Jails, Assam, recommended that all prisoners should be provided with blanket coats during the cold weather. The recommendations have been carried out. In the early morning parade prisoners are, at present, allowed to use blankets as wrappers. More blanket coats will be indented for next cold weather. The present temporary wards will be damp and unhealthy during the rains, the plinths being low, and the drainage defective. A proper jail should be built as soon as possible. The hospital building is not well protected against intense heat and cold, and steps should be taken to rectify the defects.
Tippera	Bengal	No overcrowding. The lower wards are badly ventilated. The latrine accommodation is insufficient, and too close to the wards. Tank water is used after boiling. A new boiler (Alipore pattern) is about to be put up. The *bustee* to the north of the jail land is filthy, and the tanks adjoining it are foul, and there is no way of altering or improving this, unless the *bustee* can be demolished and the land taken up by the jail department.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Tippera—*contd.*	Bengal	The lower wards remain as before, damp, gloomy and badly ventilated. This will be altered when the new wall has been erected, and the old boundary wall demolished. The part of the upper ward used as a hospital is much too small for the purpose for which it was required. Patients had to be admitted in the general ward. Three of the cases of dysentery, no doubt, originated in the jail hospital, as the latrine is too close to the beds. The mortality among the others was not in any way due to causes orginating in the jail. Cases of rheumatism, heart disease really, the sequel of the former, is a common complaint in this district. The cases of phthisis were also among men who probably brought the disease with them, and the mental depression caused by incarceration in the jail may probably have been the exciting cause.
Noakhali	"	There never was any overcrowding existing during the year. There is considerable dampness in the floors of the sleeping sheds, excepting sheds Nos. 1 and 2, the floors of which have recently been made *pucca*. This dampness is the cause of a great deal of the illness which occurs in the jail, and the moisture of the ground increases greatly during the rainy season. The fact that the drainage around these sheds has recently been put right, might help to keep the wards a little less damp. The drains throughout the jail premises inside were made *pucca* during the year 1897, and they now act well. It was recommended that all the wards of the jail should have their plinths made *pucca*, in order to reduce the unusual dampness and its consequent evils.
Backergunge	"	Overcrowding lasted for 29 days, but it was relieved by using work-sheds at night. Water for drinking and culinary purposes is obtained from a reserved tank attached to the jail. Drinking water is thoroughly boiled and filtered before issue. The yards and the compound of the jail were inundated in 1897, and thereby was caused unusual dampness in the jail premises. There has been great mortality under the heads of dysentery, diarrhœa, and lung diseases. The causes were the unusual dampness and the fact that most of the prisoners that died were from the Perozepur Sub-division, and were admitted generally in indifferent health from previous attacks of dysentery, or actually suffering from bowel complaints. A feeding platform with shed is necessary in this jail, to protect the prisoners from sun and rain.
Jessore	"	Almost all the wards were more or less overcrowded throughout the year, except the female and the hospital wards. The overcrowding was somewhat relieved by making some short-term prisoners sleep in the work-shop and hospital dormitories. As reported in former years, the ventilation of some of the wards is defective, each prisoner not getting the regulation allowance of ten square feet. Scarcity of vegetables was experienced during the months of March, April, May, June and July, and the proper quantity of vegetables could not be supplied either from the jail garden or from the local *basar*. The wells used for bathing dried up during the months of April and May, and water had to be brought from a well in another part of the jail. The river Bhyrub which lies on the south of the jail is close to the jail walls and is more like a marsh than a river. It contains some stagnant water, and is literally choked with weeds of various kinds, which die and decompose in the water, and thereby pollute it; and the remains of the dead vegetable matter subside into the bottom, and help slowly to raise the bed of the river. There is nothing objectionable on the north, east, and west sides of the jail premises. Besides the river Bhyrub, which runs from the north to the extreme south of the district, there are several other rivers which flow through the district. They are almost all old rivers of moderate width, and each one of these again has five or six old deserted beds in different stages of silting. Some of them contain water, others are nearly on a level with the surrounding fields. But all of them become full of water during the rains, and aquatic plants grow abundantly. Then, when the water subsides, the plants die and decompose. The whole district is intersected by these channels. These rivers have no direct communication with their source the *Pudda*, their origins having long ago been silted up. Their beds have become raised, at first by the deposit of silt from the *Pudda*, and since by the slow process indicated above, so that the soil to a depth of nearly 20 feet in their neighbourhood is impregnated with decomposing

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
essore—*contd.*	Bengal	organic matter. As a secondary consequence the water of wells and tanks is impregnated with the same matter. Besides, the numerous channels give off so much aqueous vapour as to make the air extremely damp, and the very moisture of the ground helps the growth of vegetation, which excludes sunlight. The result of all this is the prevalence of malaria in the shape of intermittent and remittent fever, enlarged spleen, anæmia, dysentery, and debility. These are the endemic diseases of the district, and they cause the largest number of deaths amongst the free population, and affect the vast majority of them. So that, when they come to the jail as prisoners, they come with chronic malarial taint, fever, enlarged spleen, chronic dysentery, chronic dyspepsia; and therefore it is thought that the sickness amongst the prisoners was principally due to the above causes, except in a few cases which are noted below. A pecularity of this place, and the jail in particular, is the tendency to pneumonia and chest diseases generally, which is most marked, not only amongst the prisoners confined in the jail, but also amongst the free population. There were no less than 40 admissions from pneumonia, out of which nine ended fatally. This is attributed principally to the dampness of the soil and air. Disturbance in the cerebral circulation also asserts itself in the shape of cerebral meningitis, apoplexy, and hæmorrhage into the brain. The situation of the day-latrines, close to the new sleeping block, being objectionable, recommendation for their removal was made.
Faridpur	,,	There was overcrowding in the female ward for 34 days, and in the under-trial ward for 64 days, but none in the convict wards. The river did not overflow in 1897, and consequently the drains were unaffected, but the drains are not in proper order in some places, the plaster having been removed, thus encouraging accumulation of water. The latrine is situated right in front of the cook-shed and feeding ground, and is very objectionable. The estimate and plan of the latrine have already been submitted, but not yet sanctioned. This place, like all the Eastern Bengal districts, is very damp; and consequently fever and dysentery are among the commonest diseases, from which the prisoners suffer. Apart from this, the year under report was notoriously unhealthy, the total mortality of the district in 1897 having risen to 71,942 from 62,725 in 1896. Fever and dysentery, which are the commonest diseases in the jail during the year under report, are also very common in the interior of the district, and the prisoners come predisposed to such diseases. Many of them had one or more attacks of dysentery before they came in, and about 12 of them were admitted into the jail actually suffering from dysentery. Improvements effected during the year were,—the raising of the floors of wards Nos. 15 and 16, fixing a boiler and pump for drinking water, putting up Larymore choolas, putting up a blanket boiler, the provision of ridge ventilation for one of the work-sheds and the construction of a new platform to the cow-shed.
Malda	,,	The overcrowding lasted from 15th to 21st June, 10th to 18th and 21st to 29th August, 6th to 16th September, and 1st to 12th October 1897. There was no overcrowding in any particular ward, because whenever there was any in the female and hajat wards, the excess numbers were locked up in the vacant wards for convicted prisoners, and, when there was overcrowding in the convict wards, the excess number of convicted prisoners was allowed to sleep in the verandah of ward No. I. The town is badly drained and is not properly cleaned. Mango-groves all over the town and in the vicinity of the jail prevent free ventilation, and render the soil damp. The sickness and mortality were due to ague and its sequelæ. Amongst the people admitted here, there were many cases of opium-smokers. This habit is very common in this district, both among the Hindus and Mahomedans. A boiler of Alipore pattern has been brought into use for boiling water for drinking purposes.
Dinajpur	,,	Overcrowding lasted for two days in the under-trial ward only. The Pasteur filter, which was paid for in March, has not yet been fitted. Malaria was the principal cause of sickness. There were two cases of sporadic cholera from different parts. One died, and the other recovered. The cause could not be traced.
Suri	,,	No overcrowding. No. 9 ward was used as a work-shop during the day and as a dormitory at night throughout the year. An ejector has recently been placed in the south-east wall of the jail enclosure, to take out the excreta from the main enclosure of the jail.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
ari—*contd.*	Bengal	The increased sickness and mortality during the year under report were due to the fact of the jail being converted into a 1st class district jail, and consequently a large number of prisoners being transferred here from jails situated in unhealthy places, as Baraset, Jamtara, Dinajpur, Purneah and Jalpaiguri, for the benefit of their health.
ankura	„	No overcrowding. The water-supply of the jail wells is insufficient during the hot months. Water had to be carried by hand from the river about 500 yards off. This when boiled was used for drinking purposes. For general purposes, water was taken from a public tank in front of the jail. This measure is undesirable but unavoidable, till a deep well with an unfailing supply is made within the jail. Cholera prevailed in the town for seven months (from February to August), but, owing to good sanitary arrangements, it did not spread into the jail. The cause of the occurrence of dysentery was the admission of enfeebled and anæmic prisoners received from unhealthy districts, where they had suffered repeatedly from bowel complaints and malarial fever. Improvements effected during the year were:—an ablution platform and tubs supplied from Alipore jail; windows made in the cells for good ventilation, a *pucca* drain constructed in the "leper yard" for efficient drainage; *pucca* latrines constructed for the use of the warder staff; and a compound wall for the civil hospital assistant's quarters partly built.
Chaibassa	„	The population of the jail exceeded the sanctioned capacity on the 21st January 1897, and continued excessive till the end of the year; but no overcrowding was allowed to exist; because the excess number was accommodated in the verandah, the work-shops and the temporary sheds. On the west side of the jail a *hatt* (market) was held once a week. This was 75 feet off from the main gate. The leaves and other refuse left by the gathering were not properly cleaned away. Such a gathering so close to the jail is not desirable from a sanitary point of view. The carters' camp, situated on the north side of the jail, was also a source of great nuisance. The defects have already been noticed by the Inspector General of Jails, Bengal. The Deputy Commissioner's attention has been drawn to the fact, and he has been asked to take steps to remove the defects. No particular cause could be assigned to sickness and mortality.
Purulia	„	The number of prisoners exceeded the capacity of the jail from 11th February to the end of the year. The number of female prisoners exceeded the capacity of the female ward from 14th to 27th March, when the excess numbers were locked up in cells. The excess number of male prisoners was locked up in a spare office room, a work-shop, and a temporary shed from the 11th February to the end of the year. When the *kajat* prisoners exceeded the capacity in number, they were locked up in the convict wards. Work-shops were used from the 15th February, and the temporary sheds from the 1st May 1897 to the end of the year. There is defect in the ventilation of the hospital and under-trial wards. One extra grated window is required in each. The estimate for the same was submitted, but the work was deferred, in accordance with orders of the Government of India. The drinking water for the prisoners was obtained from *Sahebband* from 7th March to 20th June, when the outside well which supplies water for drinking and cooking purposes was dry. Owing to scarcity in the district, the majority of the prisoners admitted were of low vitality, and 56 had chronic bowel complaints prior to their admission. The construction of an extra sleeping ward to accommodate the excess population, and the supply of a Larymore pattern cooking range, a Donaldson ejector, and a new pattern ablution stage were recommended. The principal factor in the heavy sick and death-rate in this otherwise extremely healthy jail was the prevalence of scarcity throughout the district, and the bad health of the prisoners generally on admission and also the prevalence of epidemic cholera and bowel complaints. Attributing many cases of the latter to the *sudden changes* from *semi-starvation* and improper feeding *outside*, to full and plentiful cooked food in jail, I curtailed the amount given at each meal with marked benefit for 14 days after admission, gradually accustoming the prisoners to their improved and plentiful scale of food. Blankets were also issued freely to all prisoners, especially to the aged and those in indifferent or bad health. The segregation of new admissions appears to be of the greatest importance, and it should be carried out also amongst the under-trial portion of the jail population, with a careful fumigation of their clothing, which should not be issued to them again, or stored inside the jail enclosure, until thoroughly fumigated and cleaned.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Ranchi	Bengal	There was overcrowding in all the months of the year 1897. In January and February 1897 there was slight overcrowding in the under-trial ward, which was relieved by accommodating the excess number in a work-shed. From March to December 1897, there was overcrowding in all the wards, and the excess numbers were accommodated in temporary sheds, tents and camps, outside the jail. The latrine is too near the cook-shed and well. Plans for a new one, near the ejector, and far from the well and cook-shed, have been approved, but its construction has not yet been commenced by the Public Works Department. The report of the Chemical Examiner showed the water from the jail well to be suspicious. It is boiled before issue, and so rendered pure. The number of cases admitted from dysentery rose from 34 of the previous year to 115. This is attributable to the prevailing scarcity in the district, and to the overcrowding of the jail during the year. The admissions from diarrhœa were 82 against 25 of the previous year, and are accounted for by the fact, that, owing to the prisoners having had an indifferent quality and quantity of food previous to admission to jail, the jail full diet and the change in food appear to have given rise to indigestion and irritation. Cholera was very prevalent in the district during July, August, and September, and occurred in an epidemic form, causing great mortality. The disease was introduced into the jail by an under-trial prisoner. Of 15 cases which occurred in the jail, 10 proved fatal. The jail was very much overcrowded during this time.
Palamau	"	Overcrowding lasted for 13 days in the year. The excess number was accommodated in the verandah, and no ward was allowed to be overcrowded. Ventilation is very defective, which has been repeatedly pointed out in my previous reports. The enclosure wall on the back side being so close to the barrack, at a distance of only 30 feet, and rising up to the top of the windows, interferes with the thorough perflation of air. Also, the ventilation within the enclosure wall is very limited. The area is 5,207 square yards, being only 41 square yards of vital area for each prisoner. Besides, the barrack is very defective in its construction. The jail site is surrounded by rice fields and low grounds, but there is no habitation for about half a mile around it. The constitution of the year was very unhealthy. This was not due to any special cause of sickness within the jail, but to the prevailing scarcity and famine for two successive years, *viz.*, 1896 and 1897, which affected the prisoners in common with the outside population. Many of the prisoners were admitted in extremely bad health (being only bones and skin), suffering severely from starvation. They contributed very much to the increase of sickness, and mortality. There was very little sickness, and no deaths, for nine months of the year; all the deaths being crowded into September and October, when the severest strain of famine was felt, and a large number of famished and diseased prisoners was admitted. The latrine which was close to the well has been dismantled. The under-trial ward was very large. It has been divided by a partition wall into two barracks, to provide for the increased number of convicts. A pump has been fixed to the well. Recommendations have been made to throw back the enclosure wall on the north to 120 feet, so as to increase the vital area; to construct a work-shed, and lower the enclosure wall from 14 to 12 feet; and to construct two new latrines. These works are to be carried out this year. Alterations are to be made in the filtering apparatus, and its conversion into cooling chambers. Plans and estimates have been submitted.
Hazaribagh	"	No overcrowding; the excess number being accommodated in the central tower. The number of under-trial prisoners was, nearly throughout the year, much in excess of the capacity of the under-trial ward, but the excess number was always accommodated in empty convict wards. There is excessive ventilation in the *katcha* wards, during the extremely cold months. Temporary means are used to obviate the risks, but are hardly sufficient. The personal cleanliness of the prisoners was maintained with great difficulty, owing to the insufficiency of bathing platforms, and the short supply of water during the hot weather months. The deficiency, however, for certain parts of the jail enclosure, where the inconvenience was most seriously felt, such as the under-trial and female wards, has been remedied during the year. Clothing was issued very freely during the year. The quality of the rice issued to the general body of the prisoners was not equal to the usual standard, owing to the extremely high prices prevailing locally.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Hazaribagh—*concluded.*	Bengal	The quality of the water supplied was not defective; but the water was very deficient in quantity during the months from March to July. Recourse was necessary to bringing the water from an outside, somewhat distant, source. Deepening of a well was effected during the year, but with unsatisfactory results. The introduction of water from the neighbouring lake is under consideration. Generally the climate is a healthy one, and the jail well situated. The district and neighbourhood appear to be specially liable to cholera in a very marked epidemic form at intervals of about three years. Influenza appears also to be more frequently and more seriously epidemic than in many other districts. About half the cholera cases were actually introduced into the jail premises, while the remainder were contracted, it is believed, by infection of food by flies, etc., or by drinking impure water outside the jail. The greater proportion of the remaining sickness and mortality, not of a miscellaneous character, was due to the famine stricken condition of the local admissions, or to the unusually bad climate conditions prevailing during the rainy season. A satisfactory settlement of the difficult question of an adequate water-supply has been somewhat furthered during the year, and a complete scheme for boiling and distributing the drinking water has almost been carried to completion, and should be in working order in a few months. Bathing platforms have been built in some of the enclosed wards, where the need was the greatest. A latrine of the recent pattern has been erected, and the other improved in construction; and better ventilation of the solitary cells has been obtained by lowering the enclosure walls. Alipore jail pattern cooking ranges have been introduced, and other improvements made in the cook-house, and in the distribution of food. The use to which this jail is put, *viz.*, as a central jail for the confinement of long term prisoners in poor health from unhealthy climates, has again been shown to be successful, in so far as concerns the maintenance of the health of the large number of such prisoners still confined in the jail, but received in previous years. Further admission of such prisoners during the year was much curtailed by the excessive admissions of local prisoners, and the prevalence of cholera in the district during several months of the year.
Champarun	"	Overcrowding existed in February, 21 days in March, and from April to October, and was relieved by providing accommodation by the erection of temporary sheds. There was overcrowding in the female ward, which was relieved by transferring the females to ward No. 9. The cause of sickness and mortality was the admission of a large number of prisoners in bad health, owing to the prevalence of famine in the district during the year.
Chapra	"	The female, under-trial, and hospital wards were overcrowded throughout the year. The overcrowding of the female wards was relieved by accommodating the extra number of female prisoners in the empty male under-trial ward, and that of the under-trial and hospital wards by accommodating the whole number of the under-trials and the excess number of sick in empty convict wards. Ventilation is defective in the female, *hajat*, and hospital wards, owing to high surrounding walls enclosing too small yards; and in the convict wards from their being crowded together. Drainage was good in the jail area, but was rendered defective and liable to flooding in the rains from the defective conformation of the surrounding land, and from the defective town drainage in general. The jail is situated in the midst of the town, surrounded by filthy bazars on three sides, and there are several bad tanks near the jail. The drainage of the town in the south and west is very bad. Sickness and mortality were due to the unhealthiness of the district from famine and its consequences, 79 per cent. of those who died being in bad or indifferent health on admission; and to the insanitary condition of the surroundings of the jail. The removal of the jail to a better sanitary site is still under the consideration of the government. Quarantine sheds have been erected in the work-yard for the segregation of the newly admitted prisoners, according to plague regulations. Bowel complaints were very common among newly admitted prisoners from the famine stricken country. Cases of intestinal parasites were also very common.
Azamgarh	N.-W. P. and Oudh.	Overcrowding existed from 1st January to 31st December 1897. The female ward was often overcrowded. Sickness and mortality were mostly due to the impoverished state of the prisoners admitted into jail, on account of famine.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Gorakhpur	N.-W. P. and Oudh	There was no overcrowding. Tents were used when the number in jail exceeded that for which there was accommodation. Anchylostomiasis is very prevalent in this district. The parasite is present in about 75 per cent. of the population, and it is undoubtedly the cause, directly or indirectly, of a good deal of mortality. Sickness and mortality were chiefly due to the bad health of the prisoners on admission to jail. Some of the fatal cases of dysentery and pneumonia were complicated by the presence in the intestine of the parasite *anchylostoma* in large numbers.
Basti	„ „	Overcrowding existed during the 1st and 3rd quarters of the year. There was no local cause of disease. The principal diseases in the hospital were fevers and bowel complaints. They were due to malaria, which was also prevalent in the district outside the jail.
Rai Bareli	„ „	Overcrowding lasted for a few days in the female ward. Sickness and mortality were due to famine. Normal rainfall after a year of drought caused ague. Owing to famine, a large number of prisoners were admitted in bad and indifferent health.
Jaunpur	„ „	Overcrowding lasted from 1st January to 16th February, 23rd May to 21st June, and 12th July to 8th October, 1897. Barracks Nos. 1, 2, 3, 4, 7, 9 and 10 were overcrowded. The high mortality was due to the admission of convicts in a very low state of health, and to climatic causes.
Benares Central	„ „	Overcrowding existed throughout the year. There was no overcrowding in any particular ward, the excess number of prisoners being accommodated at night in the corridors of the solitary cell blocks. Samples of drinking water were submitted to the Chemical Examiner to Government for examination, and were found fit for potable purposes, provided that adequate precautions are taken to protect them from bacterial contamination. During the year there were 2,388 admissions into the jail. The high rate of mortality is due to the privation which many endured as a result of famine and scarcity prior to their admission to jail. The daily average number of sick was 113·32, against 179·28 in the year 1896; this decrease being due to the old and infirm prisoners being shown as sick in hospital during the early part of the year 1896, whereas the old and infirm are now shown in the special gang.
Benares District	„ „	All the wards were slightly overcrowded throughout the year. The great prevalence of dysentery was due to seasonal and climatic influences, and partly to the indifferent state of health of many of the prisoners at the time of their admission to jail, the result of the increased cost of food from the recent scarcity and famine.
Chunar	„ „	No overcrowding. Prisoners in bad and indifferent health are transferred here from all the jails in the North-Western Provinces and Oudh, so that the admissions and deaths must always be large. A great many of the prisoners so transferred here have completely recovered.
Mirzapur	„ „	The jail was overcrowded for the greater part of the year. All the wards were overcrowded more or less. To relieve the overcrowding of the barracks, the factory was closed and occupied by prisoners at night. The surroundings of the jail are in a far from satisfactory state, and are freely resorted to for the purposes of nature by the people living in the neighbourhood. The high mortality of the jail was due to the half-starved and miserable condition of the prisoners received during the year.
Allahabad District	„ „	The jail was overcrowded for 22 days in May, 21 days in June, 2 days in August, 24 days in September, and 3 days in October. Arrangements were made by using godowns and other buildings, so that the prisoners should not be overcrowded in their barracks at night. A great deal of the sickness was due to the half-starved condition of the prisoners on admission. The pneumonia was for the most part caused by the extremes of climate experienced in the early months of the year. The dysentery cases were almost entirely famine stricken prisoners. The increase in ague was due to the excessive moisture in September and October. Diarrhœa occurred almost entirely amongst the famine-stricken prisoners, who were unable to digest the generous diet given in jail. Erysipelas has been endemic in this jail now for some years. There has been a great falling of in the number of cases of erysipelas this year and also in the number of cases of pneumonia. Every effort is being made

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Allahabad District—*concld.*	N.-W. P. and Oudh	to eradicate erysipelas by early attention to wounds and strict antiseptic precautions. Two cases of cholera were received from outside, and three occurred in the jail. The wells were all disinfected by the liberal use of permanganate of potash, as each case occurred, and every precaution was taken to prevent the spread of the disease.
Banda	" "	Overcrowding existed during the months of January, February and March in the jail generally, and in August and October in the female barracks alone. The overcrowding was due to increase in crime on account of famine. For drinking purposes, the supply of water is sufficient. Salts (magnesium especially) are high in amount, but by those using it regularly the water is said to be good. The water is drawn from a deep well, constructed well in the centre of the jail. Of the admissions into jail during the year it was found that only about 33 per cent. were in good health. Dysentery and malarial fever were therefore most common. The cause of sickness and mortality lay outside the jail precincts. Malaria, famine, and the epidemic diseases influenza and a form of pleuro-pneumonia, have caused the sickness and mortality. The famine acted by producing dysentery, diarrhœa, and debility. The jail became almost a poor house. The heat for a week in June was excessive, and caused five deaths, most of the victims being already on the sick list. There were in all 16 cases of sunstroke. The whole surface of the jail has been rendered "*pucca*," and now no soakage can occur and no emanations. The rain passes off easily, and in a few hours the surface is again dry.
Hamirpur	" "	Overcrowding existed throughout the year, excepting July; and tents were used. All the wards, including the under-trial barrack, were overcrowded more or less. In June, when two cases of cholera occurred (imported cases), the drinking water was boiled. Sickness and mortality were due to the bad condition of the prisoners on admission into jail, owing to famine. Dysentery and malarial fevers were prevalent during the year.
Orai	" "	Slight overcrowding existed in all the wards throughout the year. The winter clothing was somewhat insufficient owing to overcrowding and to the clothing being brought into use during the cholera epidemic, which prevailed during the rains, the prisoners being in camp. The jail being flooded during the rains resulted in an outbreak of cholera just three days after the flood subsided. Sickness and mortality were chiefly due to cholera. But the prevailing scarcity and increased malarial influences, arising in consequence of floods in the district, acting on constitutions already enfeebled by want and exposure, helped to swell the mortality, both of the free and jail population. The health of the generality of the prisoners admitted into the jail during the latter three months of the year was wretched.
Cawnpore	" "	There was overcrowding in the jail throughout the year. The *hawalat*, habitual barrack, and hospital were specially overcrowded. There does not appear to be any cause operative in the condition of jail life or jail surroundings to which any of the sickness or mortality can be attributed.
Gonda	" "	Overcrowding existed from January 1st to 15th February, March 17th to 16th April, May 6th to 7th, June 17th to 21st, and July 8th to 30th September. The *hawalat* was overcrowded from January to August and from 24th to 31st December. The sickness and mortality were due to the admission of prisonres ir bad and indifferent health. The dysentery was chiefly among the new admissions.
Kheri	" "	There was slight overcrowding nearly throughout the year. Nearly all the male barracks were overcrowded. The drains outside the jail are *katcha*, and do not work satisfactorily; but they are very soon going to be built *pucca*. Of the 14 deaths among the convicts 9 were during the early part of the year, *i.e.*, January, February and March, due most probably to the effects of cold added to the broken-down and starved condition in which nearly all of the prisoners were admitted into the jail.
Fatehgarh Central	" "	The numbers exceeded the accommodation provided, during the months of January, February, March, April, May, September, October, November and December 1897. Numbers 1 to 8 wards of the left circle and the hospital were overcrowded.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The rati os of sickness and mortality will be found in Table XLII.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Fatehgarh Central—*concld.*	N.-W. P. and Oudh	Sickness and mortality were due to influenza chiefly in March, April and May; to malaria from July to October, and it is doubtful if the enormous number of admissions for dysentery was due to any other cause. The walls between the barracks of the left semi-circle were lowered 3 feet, to allow more free circulation of air. For the same reason all the lime trees in the hospital compound were cut down.
Bareilly District	"	The barracks for male convicts, and still more those for male under-trial prisoners, were overcrowded throughout the year. No causes of disease can be discovered in the jail itself. For the undermentioned reasons, the health of the prisoners has been not equal to the average of the past three years, although better than the previous year. During the beginning of the year, as in the preceding year, influenza prevailed extensively, causing a large number of cases of pneumonia, and much general debility, and thereby increased mortality. During the months of October, November and December, malarial fever in the station, and all over the district, prevailed to such an extent, that few, if any escaped. During October, every one, including officials, warders, and prisoners, suffered so much that it was impossible to enter all in the hospital register. When the cold weather set in, the condition of a large number of prisoners was such as to render them susceptible to the slightest chill, the result being a large number of cases of pneumonia and dysentery. The condition of a large number of prisoners on admission was unusually bad, partly on account of privation owing to high prices, but chiefly on account of malarial fever. Those who were emaciated were generally received from the Pilibhit district and a few from Bareilly; and nearly all from the Pilibhit and Naini Tal districts were saturated with malaria. Sleeping berths were made in the female and male barracks. The number of berths was increased, so as to be equal to the accommodation calculated according to the usual superficial area and cubic space.
Moradabad	"	The last day on which the jail was overcrowded was the 24th September, and since that date the population has nearly been within the jail capacity. The jail was overcrowded more or less from the 1st January to the 23rd September. The only barracks allowed to be overcrowded were the larger ones. The water-supply is obtained from a large well in the habitual enclosure, the water of which has been pronounced good by the Chemical Examiner. Malaria was very prevalent during September, October and November, not only in the jail, but particularly in the city. Oddly, the portion of the district bordering on the *terai* and the low-lying *bhur* land did not suffer to so great an extent as the higher land of the district. The form the disease took was for the most part the intermittent, which left the patients much prostrated and debilitated. At this time the great majority of the patients lost weight. Several cases originally admitted for ague developed dysentery, and nearly all the dysentery cases had been treated at some short period before being taken ill for malaria. Two night-latrines have been erected, one for No. 22 barrack and one for No. 17 barrack. Two large airy verandahs have also been added to Nos. 22 and 23. These verandahs afford shelter during the rains, and can be used for short term prisoners in the event of overcrowding.
Dehra Dun	"	There was no overcrowding at any time during the year. A project for supplying water from the reservoir near the *kutcheri* was to have been put in hand; but this has been postponed for the present, as it is hoped that a better and more permanent supply of drinking water will be obtained from the supply which the railway authorities will use for their station at *Lakhibagh*. The pipes for this supply will have to pass close to the jail, and so a connection will be easily made. The principal admissions were for malarial fever, dysentery and diarrhœa; and these were, no doubt, in some measure, due to the deleterious effects of climate at certain seasons of the year on constitutions already considerably debilitated by the effects of the high prices prevalent in this district for food-stuffs during the year.
Meerut	"	Overcrowding lasted practically throughout the year, but chiefly from April to November, both inclusive; and was greatest in September, when the daily average was 829·67. On 300 days the population was in excess of the total capacity. There was no overcrowding at any time in the female barrack, and practically none in the civil barrack. With these exceptions, all the barracks were overcrowded. The number of days in which individual barracks were overcrowded varied from 147 to 320, the latter figure occurring in the male under-trial barrack. The ridge ventilation, which still exists in some barracks, is objectionable: it admits too much drift rain in the wet season, and it is gradually being done away with.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Meerut—*concld.*	N.-W. P. and Oudh	A diet of wheat and barley was, owing to financial pressure, issued during the rains, instead of one of pure wheat. The use of barley accentuated the tendency to intestinal troubles which was so marked a feature of the outbreak of malarial fever, which developed soon after the onset of the rains. The 3rd diet scale (10 chittacks of flour) is insufficient for robust under-trials. Up to the end of July the year was extremely healthy. When the rains became established, malarial fevers at once became very prevalent, and continued so right up to the end of the year. The type was unusually severe, depression and lowered vitality being leading symptoms; and from the first there was a marked tendency to catarrhal intestinal complications. As the weather became colder, dysentery and diarrhœa became very frequent and fatal, the subjects being almost invariably those whose health had been undermined by repeated attacks of malarial fever. A similar state of affairs prevailed in the neighbouring city and cantonments; not so, however, in the district as a whole. Why this severe autumnal outbreak of malarial fevers should have been so localised, is not very clear: the same conditions prevailed all over the district, *viz.*, ten months or more of drought followed by a moderate and well distributed rainfall. Malaria was at the bottom of most of the fatalities. Only two so-called famine prisoners were received in the jail during the year. Most of the prisoners released during the latter part of the year were found to have lost weight, some of them to a ver considerable extent. The ventilation of a row of 16 cells in barrack No. 5 has been improved. Barrack No. 7 is being re-roofed, the ridge ventilation being at the same time done away with.
Jhansi	„	The jail was more or less overcrowded throughout the year. Every barrack was overcrowded at some time or other throughout the year. The principal cause of sickness during the year was the famine from which the district suffered severely. This led to the admission of a large number of emaciated prisoners, many of whom also suffered from dysentery or diarrhœa. Malaria was the next most potent cause of disease. Syphilis and the micro-organisms which produce suppuration were also active.
Almora	„	No overcrowding. There are no local causes of disease.
Bannu	Punjab	The jail was overcrowded for 186 days during the year. There was a large increase in sickness and mortality this year. The exceptional nature of the season was the cause of increased ill-health and mortality.
Sind Gang	Bombay	There was overcrowding in all the barracks more or less when the prisoners slept in the barracks. No temporary sheds were used. Owing to the intense heat the prisoners sleep in the open air during four or five months of the year. During the greater part of the year it was impossible to get a sufficient quantity of vegetables. During the major part of the year the water-supply has been from *kutcha* wells. The quantity of water was rather limited, and its quality indifferent. In some lowlying parts, surrounding the camp, rain water has a tendency to accumulate, the natural drainage being deficient. The extremes of heat and cold and chilly winds in their respective seasons have been the principal causes of disease. Besides, the unusually heavy rain in July and August made the climate more unhealthy than the past year. Influenza and pneumonia were epidemic in the beginning, as well as about the end of the year.
Nasik	„	Overcrowding lasted throughout the year in the jail. There was no overcrowding in particular wards. Only one cell has a roof ventilator. Two drains exist which join to the main drain of the city. One of these drains has been relaid so as to fall into the surface gutter instead of into the sewer as heretofore. There is no well or water pipe. The supply of water is obtained by cartage from a well half a mile off. The water is declared to be a fair sample of potable water by the Chemical Analyser. The prison is surrounded on all sides by dwelling houses. Bowel complaints have been the chief cause of sickness and mortality. They were common in the district.
Thana	„	Overcrowding lasted throughout the whole year. Convicts were equally distributed throughout the wards. The scale of diet was reduced from the 22nd October 1897.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Thana—*concld.*	Bombay	The Chemical Analyser to the Government has repeatedly condemned the water supplied to the jail in pipes from the *Pokhron* tank as unfit for potable purposes. The water used for drinking in the jail is from a well in the hospital compound, and has been reported on as a fair sample of potable water. The moat running underneath the hospital walls may have some influence in producing or aggravating the malarial fever present in this jail. The moat always contains stagnant water with a large amount of vegetation in it. Overcrowding might have exerted an unfavourable influence on the general health of the prisoners. Sickness and mortality were due to the following causes:—Fevers of a malarial character and due to climatic causes; cholera not yet traceable to any particular cause or causes; epidemic diarrhœa—occurring during the prevalence of cholera; diarrhœa and dysentery—due to climatic causes and chiefly occurring in the rainy season; respiratory affections—due to climatic causes and chiefly occurring in the cold weather; skin diseases—occurring in prisoners who come in suffering therefrom; contusions, etc.—occurring among the extramural gang, from the nature of the work. All the barracks and the hospital were vacated one by one and untiled; the floors were dug up; and the walls were scraped and repainted. Stringent precautions in the way of quarantine were taken to prevent any case of plague being imported into the prison. Evacuation of the prison, or removal of as many prisoners as possible, was recommended, owing to the prevalence of cholera in August; and 210 convicts were removed to the lunatic asylum at Nowpada.
Bombay Common	,,	There was overcrowding during the whole year in the large barracks of the jail. The surroundings of the prison are bad from overcrowding. Bad habits prior to conviction have been the predominant features in the causes of diseases. Two cases of plague were transferred to the infectious diseases hospital.
Bombay House of Correction	,,	The jail was overcrowded from 1st January to March 1897. The corner cells Nos. 2, 3, 4, 5, and 6 are badly ventilated, owing to the work-shops shutting out the sun. The drains have been opened out during the year and left thus, as the open drains are considered better from a sanitary point of view. There is no reason to believe that the sickness and mortality have been caused by other than any of the usual climatic influences, and the unhealthiness of the houses of the prisoners prior to incarceration, coupled with the irregular and intemperate living of the majority of them, whose constitutions are undermined by syphilis, scrofula, scurvy and malaria. Plague accounts for 33 admissions with 17 deaths. Plague raged for a considerable time in the Byculla district, and it was only after a large number of dead rats were detected, that the disease showed itself among the prisoners. From the date of the outbreak of plague, the prisoners were allowed to sleep during the night in No. 3 yard work-sheds; and this was continued till the 7th June 1897. The tread-mill and No. 5 yard work-sheds were used as hospital accommodation for prisoners suffering from plague. The prisoners were inoculated on the 30th January 1897, with M. Haffkine's prophylactic serum.
Ratnagiri	,,	Overcrowding existed among males from 16th May to 8th October 1897. Barracks Nos. 13, 14, 15, 16, and 17 were overcrowded. The sickness and mortality appear to be due to the original bad health of the prisoners on their admission into the jail. In all except two cases the health on admission was poor, fair, or weakly. The two cases noted as good on admission died of diarrhœa and scurvy respectively. Four deaths can be attributed to constitutional or other causes to which the deceased were exposed before admission into the jail, such as curvature of the spine, tubercular phthisis, rheumatism, and dilatation of the heart. All these men were on light work all the time they were in jail. Two cases of diarrhœa were very bad on their first admission into jail, and had to be sent straight to hospital.
Yeotmal	Berar	The jail was excessively overcrowded all through the year. The daily average attendance was 139·65. All barracks, dormitory, cells, under-trial wards, and hospital block, were overcrowded during the year. As regards diseases attributable to climatic causes, ague was the chief. The health of the jail inmates was exceptionally good, in spite of the large overcrowding which continued throughout the year.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Yeotmal—*concld.*	Berar	Cases of malarial cachexia and enlarged spleen often come into this jail with broken down health, but with no appreciable sign of disease except a general emaciated and anæmic condition.
Akola	,, ...	All through the year the jail has been overcrowded, and excessively so at the close of the year, when the total population ran up to an average of 770·45 per day. There has been no overcrowding in any particular ward, as excess prisoners were accommodated in tents and all available work-sheds. There is no outlet for the main drain. The Public Works Department has been written to concerning this subject. At present the sullage from this drain collects in the vicinity of the jail garden, and forms a stagnant pool, and in a measure helps to form a fruitful source for the propagation of malaria. If the scale of diet in force at this jail were again modified immediately to its former standard, there would be a change for the better in the general health of the convicts, with a corresponding decrease in total deaths by the close of the year. Unless this is done, it is doubted if the health of the convicts will improve, although every attention is being paid to their general supervision, as regards attention to the details that make up the whole of what is termed jail hygiene. The jail buildings are erected on ground that is almost on a level with the bed of the Morna river that skirts it to the south. Such a condition cannot be conducive to health, specially among a jail population of over 700 convicts in a jail which only affords accommodation for 545. The prevailing anæmia so closely associated with the gene al physique seemed at first due to malarial cachexia. But it is noteworthy that, while the anæmia is so marked, enlargement of the spleen in all these cases is absent. This anæmia may, perhaps, therefore, be associated with some other cause, the source of which has not been arrived at. A very large proportion of convicts suffering from anæmia have black patches on their face and tongue due to the deposition of pigment. All these prisoners suffer from general debility, and have to be constantly removed from the working to the convalescent gang. While in the convalescent gang, they quickly recoup themselves; but, as soon as they are returned to duty, they speedily fall back, and show all the symptoms of debility, anæmia, and rapid breaking up. The endeavour is being made to find out if these cases of anæmia are in any way associated with the parasite that produces "*kala-azar*". Experiments have just begun, and will be reported later on. How far the high ratio of mortality with the proportionately large percentage of convicts who exhibit all the symptoms of marked anæmia and debility is associated with the views related above, careful tabulation of statistics and observation of facts for 1898 will help to elucidate. The marked anæmia and debility are being combated by the daily administration of a prophylactic made up of iron and quinine; and the results are being watched. It seems inexplicable that in a jail which is so unhealthy, with a high ratio of mortality, overcrowding to the excessive extent that has occurred in 1897 should have been allowed. In this jail on no account should there be a daily total population over 500. The situation of the jail and its surroundings are not conducive to health. The diet needs to be altered towards a standard calculated to yield 250 to 350 grains of nitrogenous and 3,500 to 5,000 grains of carbonaceous elements, fats and salts to be most carefully included. The average diet for ordinary labour should be 5,688 grains of C and 307 grains of N, to maintain good health, and prevent serious loss in weight. It has been found by experience that when the dietary contains as much as 5,090 grains of C and 256 grains of N, convicts detained even for short periods of confinement lose weight and show other signs of decay.
Damoh . . .	Central Provinces . .	Considerable overcrowding lasted in all the wards throughout the year. During November and December, the population fell to less than 200. In other months it was always over 200. In all the barracks the ventilation is defective, but this is to be remedied by having windows let in. The night latrines are of an obsolete pattern and dangerous; but they are being replaced by ones on the standard plan. The water-supply was insufficient in the hot weather, as usual, inside the jail. A new well is being sunk outside the jail. As in the preceding year, the sickness and mortality in this jail were very heavy. This was to be expected, taking into consideration the famine that prevailed, and the impoverished condition of the people. The great majority of those admitted into jail, as will be seen from the admission register, were in bad health; and in many instances prisoners admitted into jail were directly sent to hospital.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Damoh—*concld.*	Central Provinces	The following measures were adopted to prevent the spread of dysentery :—All prisoners in jail were given every morning for six months ten minims of tincture of opium and 20 minims of sulphuric acid as a prophylactic ; the clothing of prisoners suffering from dysentery was destroyed ; the prisoners were completely isolated ; and the excreta were destroyed in an incinerator. Antiscorbutics were freely administered to the prisoners, in the shape of lime-pickle, tamarind, and fresh green vegetables. On the receipt of a letter from the Administrative Medical Officer all prisoners were in the beginning given five grains of cinchonidine sulphate combined with sulphuric acid. This was discontinued, and only those in a poor state of health were given it every morning ; and it is still continued. *Cancrum oris* accounted for 16 deaths. The first case died on 14th September 1897. This was the commencement of the infection. Isolation in a barrack did not appear to stop the progress of the disease, and it was decided to remove the prisoners into *chappurs* within the jail enclosure. This appeared to make matters worse, and they were removed to a distance of half a mile from the jail, where they rapidly improved. This disease was very rife among the inmates of poor-houses and the pauper population of the town, and was also noticed among the people employed on relief works. In poor-houses the disease was very fatal.
Saugor	,,	Overcrowding lasted all through the year. The under-trial, hospital, and habitual wards were overcrowded. The walls of the jail are too high. The roof ventilation is bad. Night latrines are not sanitary as they are in the barracks. There are no day latrines in the under-trial, female, and hospital enclosures. Famine during the year, and for several years previously great scarcity, were the local cause of disease. The sickness and mortality were due to privation and overcrowding ; but privation far and away has been *the* cause. Also the prisoners' physique was in some cases very bad.
Jubbulpore	,,	The jail was overcrowded throughout the year. There should be a continual supply of water. The storage in *gurrahs* is objectionable. The sickness and mortality have been mainly due to the wretched state of the prisoners on admission. Chronic dysentery and pneumonia are due to a lowering of vitality owing to prolonged privation. The admission for ulcer of the mouth has been great. This disease is a part of the general anæmia which ends in chronic dysentery.
Narsinghpur	,,	There was overcrowding in all the wards more or less throughout the year. The mortality was especially due to the weakened condition of the people before coming into the jail, in consequence of repeated failure of the crops, and insufficiency of food, which occasioned frequent bowel complaints amongst the prisoners previous to, and immediately after, coming into the jail. The ventilation of the hospital was improved by adding extra ventilation-holes. The cells were raised, and additional ventilation was added. The roofs and floors of the two barracks were raised, and more doors and ventilation openings in the walls were added.
Mandla	,,	Overcrowding lasted throughout the year ; but the excess was especially heavy from June to September. Every building, except the female barrack and the hospital, were almost constantly overcrowded. The night latrines are still very defective. The health of almost all prisoners received was seriously affected by the existing famine. Dysentery, scurvy, and extreme anæmia prevailed. Sickness and mortality were due to severe privation from which all the inmates had suffered prior to their admission into jail. Dysentery, fevers, anæmia, chest diseases, and privation were responsible for many admissions. Four deaths occurred from cholera, and one from acute cerebral meningitis due to exposure to damp and cold. The accommodation for all classes of prisoners was quite insufficient, and their starving and diseased condition demanded special measures to prevent evil results from crowding. By using every available shelter at night, and by keeping the more weakly ones separate in an out-building, much relief was given ; and the proper treatment of all who needed special care was carried out.
Bilaspur	,,	Overcrowding lasted throughout the year in all the wards. The ground on which the jail is built is flat, and the ground inside the jail enclosure is on the same level ; so that surface water does not run off freely.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Bilaspur—*concld.*	Central Provinces . .	There are no proper arrangements for washing or bathing the prisoners. The site of the well, from which all the water-supply is obtained, is not satisfactory. Part of the drainage of the jail enclosure is towards the well. Sickness during the year was chiefly from debility, ulceration of the mouth, ague, dropsy and diarrhœa. It was due principally to the bad state of health of the prisoners on admission into jail, the result of long continued privation ; to overcrowding ; to the damp condition of the soil and the rise in the sub-soil water during the rains ; and to chills in the cold weather. The mortality was due to the admission into jail of prisoners in bad health, many of whom were seriously ill and many moribund. The conditions of the year were extremely exceptional, and very unfavourable to health. The district was famine-stricken, diseases the result of privation were prevalent, and the mortality resulting therefrom was appalling. People were driven to crime through sheer want, and the jail was consequently overcrowded with famine-stricken prisoners.
Sambalpur	,, ...	Overcrowding lasted from the beginning to the end of the year. In all the wards overcrowding occurred, except in the female ward ; and the overcrowding was most in the under-trial ward. There was some obstruction of drainage during the rains. The drains are not in good repair, and are probably defective in their construction. The matter has been brought before the Public Works Department, and work has been taken in hand to remedy the defects. *Kutcha* insanitary latrines were in the female and under-trial wards. They are now being replaced. The jail is practically surrounded by rice-fields on two sides. This no doubt is the cause of much malaria. A hill to the north-west, very close to the jail, makes it very hot at night in the hot weather, owing to radiation. Dysentery caused nine deaths and diarrhœa four. These diseases were partly due to overcrowding, but the bad health of the prisoners on their admission into jail had a great deal to do with them. Out of these 13 men, only three were admitted in good health. These diseases were prevalent during the rains, and were to a certain extent connected with the sudden lowering of temperature. Cholera caused eight deaths, and the first case appeared in the under-trial ward. The disease was imported into the jail, as cholera was raging at the time in the town and district. In some of the prisoners the gums were of a bluish colour and somewhat thickened, but no true scurvy was seen among men coming to jail, or occurred in the jail. Two new latrines are being built. One well has been reserved for drinking purposes.
Raipur	,, ...	All the wards were overcrowded during all the months of the year except January and December. Dividing walls obstruct ventilation. They are to be lowered. The year under report has been exceptional, being one of severe famine. The chief causes of mortality are bowel complaints and tubercle of the lungs. The high mortality in the jail is due to the wretched state of health of new admissions, a large number being admitted in an emaciated condition, with their alimentary tract in a diseased state from starvation. It is owing to deaths among these prisoners that the mortality of the jail has been high for the year. Petty crime also increased in the district on account of famine, and the jail became overcrowded. This overcrowding was not so much in the barracks, the work-shops being used at night, but in the area enclosed by the outer walls. Dysentery, which is infectious, broke out and spread. Ulcerative stomatitis also appeared. In the great majority of cases of tubercle of the lungs, it is believed that the prisoners were affected before their admission into jail.
Balaghat	,, ...	Overcrowding lasted for 31 days in the male convict and under-trial wards during the year. Overcrowding existed only in the male wards. The mortality was high during the year, and the cause of it has been traced to the physical condition of the prisoners on admission on account of privation and starvation. On many occasions they were brought in carts and *doolies*.
Seoni	,, ...	Overcrowding existed to a small extent in the civil wards (used for females) and in the male under-trial ward off and on throughout the year. Ventilation is too free on cold windy days. The lateral openings have been partly blocked up. During and after the rains the sub-soil water rises very near to the surface.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

Jails.	Provinces.	Sanitary defects, improvements, suggestions, etc.
Seoni—*concld.*	Central Provinces	*Gitti* manufacture caused spreading and sloughing ulcers. They were prevented by using leggings. The sickness and mortality were mainly due to agriculture distress, and the privation and want resulting. Thus more than half of the admissions into hospital were furnished by diarrhœa and dysentery, which were the result of prolonged supply of insufficient or improper food.
Chhindwara	„	Overcrowding lasted throughout the year. It occurred in the under-trial, habitual, juvenile, civil, women's, factory-sheds, and hospital wards. Water in the jail compound had to be supplemented by water brought from the outside. The yearly sickness was increased by a state of famine. Ordinary diseases occurred, but their ordinary relative frequency was altered. Diseases due to diminished vitality were in excess, such as bowel complaints, skin diseases, anæmia and debility, boils and ulcers. Malarial fever usually is ahead of other diseases, but this year it only came second. Mortality may also be said to be due ultimately to famine, but in the forms of muco-enteritis, ulceration of intestines, debility, and pneumonia.
Hoshangabad	„	Overcrowding lasted throughout the whole year, but it was relieved to a great extent by allowing prisoners to sleep in work-sheds. Owing to great overcrowding, clothing, in respect of blankets especially, was not sufficient, to some extent. The reason for so many deaths during this year is that the general health of the people was broken down on account of privation and scarcity prevailing throughout the whole year, and the vitality of the tissues was so much reduced that these could not cope with disease. The high mortality is not only in the jail, but throughout the whole district, and in some places it is even more marked than in the jail.
Nimar	„	Overcrowding existed during all the months of the year, except January. The under-trial ward was especially overcrowded during the greater part of the year. Owing to the scarcity of water, prisoners only bathe once a week in the hot weather. The chief causes of sickness and mortality during the year have been the weakened and anæmic condition of the prisoners due to the distress and scarcity that prevailed throughout the district; also to an epidemic of diarrhœa, that was prevalent during August and September, and which affected both the prisoners in the jail and the free population. The jail itself is well elevated, and situated on a deep trap overflow, so that the drainage is good and the jail stands high and dry, and there is no very apparent local cause for malaria or other disease.
Betul	„	Overcrowding lasted throughout the year. Excepting in February and March, prisoners were locked up at night in the manufactory yard to relieve overcrowding in barracks. The under-trial ward and some convict wards were overcrowded. Sickness and mortality were due to the following causes:—Dysentery due to climatic causes; to the presence of cachexia and malnutrition among convicts admitted into jail; to errors of diet, to chills, and to overcrowding; malarial fevers, due to malarial cachexia among the men admitted to jail, and to chills; cholera, due to infection from outside.
Wardha	„	Overcrowding existed from 1st to 13th January, 28th to 31st January, 1st to 6th February, 3rd to 9th March, 23rd to 31st March, and 1st to 11th April. It was relieved from 12th April by accommodating the surplus prisoners in the work-shed. Overcrowding existed sometimes in the under-trial ward, and was relieved by placing the under-trials in convict wards. The large proportion of fever was due to malarial influences contracted outside the jail, and to a general unhealthy condition of the district, wherein the mortality from malarial fever was very high. Most of the cases that were admitted into hospital were admitted into jail in a bad or indifferent state of health, due to the scarcity and to the high prices of food-stuffs that prevailed in the district all the year round.
Chanda	„	Overcrowding lasted for 11 months in all the wards. The six prisoners who died from dysentery, diarrhœa and debility had come from that part of the district where distress prevailed.
Cannanore	Madras	No overcrowding. The water-supply is unsatisfactory, and is insufficient for the needs of the jail during times of scarcity; but this defect is being remedied, and a large new well is being bored within the jail by the Public Works Department.

Jails.	Province.	Sanitary defects, improvements, suggestions, etc.
Cannanore—*concld.* . . .	Madras	A high death-rate was owing doubtless to the very unhealthy state of the country, and to the starved condition on admission into jail of many prisoners in the times of recent scarcity. Worms accounted for five deaths, and apparently this condition is associated with starvation in many cases, especially *ancylostomum duodenale*. Respiratory diseases and malaria again accounted for a large number of admissions, and dysentery was common. Quinine and arsenic as malarial preventives, and vermifuge treatment, were given as a routine practice to all new admissions to jail. The weights of prisoners have markedly improved after admission to jail. This may be accounted for by the fact that great scarcity and dearness of provisions existed outside, and consequently, the initial weights were low. The general health of the sorrounding neighbourhood has been very bad, and the death-rate high, owing to want and cholera, starvation and associated anchylostomiasis.
Coimbatore	„	No overcrowding. The water is bad owing to excessive hardness. It was sent to the Chemical Examiner in September. *His remarks.* "The excessive hardness alone is sufficient to condemn these waters. Both samples have afforded results which are very suspicious of organic contamination since they were last examined here." Cholera caused 280 admissions with 111 deaths. It appeared in an epidemic form on the 5th April, and continued to the 30th April. The disease prevailed throughout the district, the town, and also the immediate vicinity of the jail, for about a year before it broke out among the prisoners. The first case was that of a Moplah prisoner received from Palghat sub-jail where cholera prevailed. He came into this jail on the 22nd March 1897. The prisoners were removed to camp as soon as possible, the jail being completely vacated. The disease continued in camp only for a week, causing 100 admissions and 30 deaths, and the attacks in the camp were of a milder type. Catarrhal inflammation of the intestines caused 97 admissions with 10 deaths. Dysentery caused 84 admissions with 15 deaths. Most of these cases came on after the cholera epidemic, and hence the large mortality. The cases of catarrhal inflammation of the intestines and of dysentery were probably due to atmospheric changes, as well as to the permanent hardness of the drinking water, which men in delicate health were not able to resist. Of the 10 deaths from catarrhal inflammation of the intestines four occurred among men who had recovered from cholera, and who were therefore not strong enough to resist the disease; and similarly, of the 15 deaths from dysentery five occurred among men who had recovered from cholera. Loss of appetite caused 33 admissions, of which 30 were among men recovered from cholera. Ague caused 29 admissions all of mild type. Of all the new admissions into jail, 36 were received from malarious places, such as Karnool and Cuddapah, and were treated with arsenic as a prophylactic, and none of these were attacked. Simple continued fever caused 25 admissions, and was due to climatic causes, and the disease was of a mild type, and needed no special measures to check it. Tubercle of the lungs caused 18 admissions with five deaths. Of the five deaths two were among men who had recovered from cholera. Bronchitis caused 17 admissions, and was due to cold winds.
Rajamundry	„	No overcrowding. The drainage is not satisfactory, and proper drains ought to be made along the blocks. Some of the wards require to have the walls inside made smooth by plaster, as they are all rough, and organic and germ matter stick to the walls, which is insanitary. All the floors ought to be dug up and cemented, and brick *pyals* constructed instead of the present mud ones. The latrine in the hospital yard is a few yards from the kitchen and is in the worst possible position. The nature of the year has been such that many prisoners arrived in a famine-stricken condition, and had to be admitted to hospital direct, many dying from the loss of the power of assimilation, and many others, lingering on for some time, succumbed to the common sequelæ of starvation. Those who died were for the most part hill men, and the majority were also subjects who had suffered from the effect of malarial poisoning, as indicated by the enlarged and fibrous spleens and livers. These do not call for any further remark. There were three epidemics of cholera, in the management of the first of which some mistakes were made. The chief causes of intestinal affections were:—Previous attacks which have so weakened the bowel that it is liable to relapse; the malarial condition of the subjects; parasites, either ancylostomum or ascaris lumbricoides; chills; uncleaned grain flour; badly cooked food; drinking impure water; and overeating. Twenty-six prisoners suffering from beri-beri were transferred to Vellore during the year. It is a moot question whether these cases

TABLE XLIV—*concluded.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS.

The ratios of sickness and mortality will be found in Table XLII.

JAILS.	PROVINCE.	Sanitary defects, improvements, suggestions, etc.
Rajamundry—*concld.*	Madras	were truly beri-beri. It is thought that there is a low fever which attacks the prisoners at night, and may be due to some blood parasite. This low fever is followed by an impoverished state of the blood, anæmia, dropsy, and frequently albuminuria. This fever is considered to be infectious, and the cellular arrangements now being introduced may help to curtail the disease. Prophylactics have been issued to all the blocks since November, but there has been no appreciable fall in the admissions for ague. The year being an abnormal one, and the admissions to jail being for the most part famine-stricken, the sick rate has been exceptionally large, and no deductions therefore can be drawn from the mere comparison of figures. Anchylostoma is extremely common; *i.e.*, 75 per cent. of the jail population are affected. So much so that all new admissions are treated by *thymol* and *santonin*. Improvements effected during the year were:—Removal of an inside temporary night-soil depôt which was in use during the first three months of the year; a shower-bath devised by me to secure purity in the bathing water, so that it matters not if prisoners drink some of it, while bathing; abolition of the old system of open bathing cisterns, as prisoners often drink from the cisterns while bathing; building of closed drinking water cisterns, which have a hydrant inside to fill them up, thereby doing away with the present open cisterns, which are filled by carrying the water; and covering in of the main well. Recommendations made during the year were:—A crane on the wall for transferring the night soil and rubbish over the wall; thereby curtailing the number of times of egress and ingress into the jail of the present trollies; and covering in of the well, so as to prevent rain washing dirt into the well.
Vizagapatam	"	Overcrowding lasted from 10th March to 21st November 1897, but the extra men were kept at nights in verandahs and sheds, etc. Owing to scarcity of water, it was impossible to keep bodies or clothes clean. The sickness and mortality were due entirely to the condition of the prisoners before admission. Of the 20 patients treated for dysentery, 12 were admitted with the disease. The unhealthy months were, as usual, August, September and October. The cases of pneumonia are attributable to chills, from which it is impossible to guard the prisoners during showery weather, if they will not take ordinary precautions themselves. Of the 31 ague cases, 15 were suffering on admission. Arsenic was issued to 190 convicts for a month in accordance with orders. There was but little fever in the jail, and it is impossible to say whether any benefit was derived from the issue.
Berhampur	"	There was overcrowding in the jail during the months of May, June, August, September, October and November. The under-trial and remand prisoners' ward was overcrowded. The excess population was accommodated in the blocks used for convicts. The water when examined by the Chemical Examiner, Madras, was declared to be suspicious. Sickness and mortality were due to epidemic disease, and to famine and privation during the year 1897. Various improvements in the drainage, water-supply, kitchens, and barracks, were effected during the year. Recommendations made during the year were:—A masonry built quarantine block to be built outside the jail walls; the dead house to be removed from the jail enclosure; an infectious ward to be constructed; a large Pasteur-Chamberland filter to be got for the use of the jail; impervious flooring to be laid down in the blocks where the night-soil tubs are kept; and iron tubs to be used instead of the present wooden night-soil tubs. Fever prophylactics have been regularly given to all the population since the month of October. On account of the prevalence of bowel complaints, quinine was given in preference to arsenic. On the subsidence of the bowel irritation, arsenic was given in the month of November, but had to be discontinued, diarrhœa again appearing. I cannot say there is any result good or bad.
Russellkonda	"	No overcrowding. Cholera prevailed in an epidemic form in the town and in the surrounding villages, and made its way into the jail, but did not continue in an epidemic form, and was soon stamped out. Dysentery and other diseases of the stomach and intestines prevailed, as usual, during the damp and wet months of the south-west monsoon. A new drinking-water well was completed. The water was examined by the Chemical Examiner and pronounced good. The jail has been extended, and work-shops are under construction.

TABLE XLV.

INFLUENZA by months, jails, groups, and administrations.

TABLE XLVI.

CHOLERA by months, jails, groups, and administrations.

Jails.*	Admissions from Influenza in each month.													Admissions from Cholera in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Moulmein	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60	3	...	...	...	...	...	...	...	...	63
Shwegyin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	3
Toungoo	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	1	4
Bassein	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	3
Akyab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Group I.—Burma Coast and Bay Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	60	3	6	...	...	3	...	...	...	2	74
Paungdi	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	3
Prome	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	..	...	...	...	1	...	...	...	5
Minbu	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	10	...	...	...	.	...	...	...	...	...	10
Meiktila	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Pakôkku	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	2	...	...	...	...	...	...	...	2
Myingyan	...	...	...	...	...	...	...	...	...	13	32	...	45	...	...	...	...	2	11	...	...	...	...	...	...	13
Group II.—Burma Inland	...	...	...	...	...	...	...	...	...	13	32	...	45	...	...	14	1	4	12	...	...	2	1	...	...	34
Dibrugarh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	1	...	1	...	...	...	...	2
Gauhati	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	1	...	...	...	...	...	8
Dhubri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	1	1	2
Sylhet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Group III.—Assam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	2	1	...	...	1	1	13
Dacca	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Chittagong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Backergunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Alipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	4
Krishnagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Rajshahi	5	3	3	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Bogra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Dinajpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Naya Dumka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	4
Suri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Midnapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	3
Balasore	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Cuttack	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5	...	..	...	...	...	6
Group IV.—Bengal and Orissa	5	3	3	...	...	...	...	...	1	...	...	...	12	...	3	4	1	...	1	8	4	...	3	2	...	26
A																										
Purulia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	1	...	...	...	..	4
Ranchi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	3	...	...	...	...	15
Palamau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	15	...	...	...	22
Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31	1	...	...	...	...	32
B																										
Muzaffarpur	...	5	3	...	...	...	...	...	...	...	...	...	8	...	...	...	...	..	...	...	...	...	...	...	...	...
Ghazipur	...	...	1	4	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Azamgarh	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	3
Gorakhpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Fyzabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3
Rai Bareli	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	5
Jaunpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	3
Chunar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	7
Mirzapur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Allahabad District	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	2	2	...	...	...	5
Banda	14	21	8	7	7	1	...	...	...	5	6	3	72	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatehpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2
Hamirpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2
Orai	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29	...	...	...	...	...	29
Cawnpur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2
Lucknow Central	...	1	3	1	...	...	...	...	5	151	108	2	271	...	...	...	...	...	...	6	7	...	...	...	...	13
" District	...	...	3	...	...	...	3	5	23	105	40	6	185	...	...	...	...	...	...	...	...	...	...	...	...	...
Kheri	...	...	6	6	...	...	...	...	...	...	...	...	12	...	..	...	...	...	...	...	...	...	...	...	...	...
Hardoi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2
Mainpuri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	3
Fatehgarh Central	...	...	23	132	70	...	...	...	...	...	...	...	225	...	..	...	..	...	...	...	...	...	...	...	...	...
" District	...	16	11	5	2	..	...	...	...	...	...	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Group V.—Gangetic Plain and Chutia Nagpur	14	43	58	155	79	1	4	5	28	261	154	11	813	...	...	2	2	...	6	98	25	19	...	3	...	155
A																										
Saharanpur	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Meerut	...	3	7	...	5	7	29	...	...	...	...	...	51	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Jullundur	...	2	15	7	1	...	...	...	...	...	...	...	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujranwala	...	...	2	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	...	...	...	...	...	...	...	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VI.—Upper Sub-Himalayan	...	5	24	7	6	7	29	...	...	...	1	3	82	...	...	...	...	...	1	...	...	..	...	...	...	1
C																										
Sind Gang	30	...	...	...	...	...	...	...	...	...	...	...	30	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana	30	...	...	...	...	...	...	...	...	...	...	...	30	...	...	...	...	...	...	...	...	...	...	...	...	...

* Jails where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table XLII.

TABLE XLV—*continued.*

INFLUENZA by months, jails, groups, and administrations.

Jails and Administrations.	Admissions from Influenza in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
B													
Agra District	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VIII.—S.-E. Rajputana, Central India, and Gujarat	...	...	...	...	...	...	...	...	...	...	...	...	...
A													
Mandla	...	...	...	...	...	...	...	...	...	...	...	...	...
Bilaspur	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambalpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Balaghat	...	...	...	...	...	...	...	...	...	...	...	...	...
Seoni	...	...	...	...	...	...	...	...	...	...	...	...	...
Betul	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhandara	...	...	...	...	...	...	...	...	...	...	...	...	...
B													
Yeotmahl	...	...	1	...	...	...	...	...	...	...	...	...	1
Amraoti	...	...	...	...	...	...	...	...	...	...	...	...	...
Akola	...	...	...	...	...	...	...	...	...	...	...	...	...
Dhulia	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasik	...	...	...	...	...	...	...	...	...	...	...	...	...
Yerrowda	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharwar	...	...	...	...	...	...	...	...	...	...	...	...	...
Group IX.—Deccan	...	...	1	...	...	...	...	...	...	...	...	...	1
Thana	...	...	...	...	...	...	...	...	...	...	...	...	...
Bombay House of Correction	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore	...	...	...	...	...	...	...	...	...	...	...	...	...
Group X.—Western Coast	...	...	...	...	...	...	...	...	...	...	...	...	...
A													
Salem	...	...	...	...	...	...	4	...	...	...	...	...	4
Coimbatore	...	...	...	...	...	...	...	...	...	...	...	...	...
B													
Palamcottah	...	...	...	...	...	...	...	...	...	...	...	...	...
Madura	...	...	...	...	...	...	...	...	...	...	...	...	...
Vellore	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, natives	...	...	...	...	...	...	...	...	...	...	...	...	...
C													
Rajamundry	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam	...	...	...	...	...	...	...	...	...	...	...	...	...
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XI.—Southern India	...	...	...	...	...	...	4	...	...	...	...	...	4
Russellkonda	...	...	...	...	...	...	...	...	...	...	...	...	...
Group XII.—Hills	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA	49	51	86	162	85	8	37	5	29	274	187	14	987
Andamans	...	...	...	...	...	...	...	...	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	...	...	...	...	...
Assam	...	...	...	...	...	...	...	...	...	13	32	...	45
Bengal	...	...	...	...	...	...	...	...	...	...	...	...	...
N.-W. Provinces and Oudh	5	8	6	...	...	...	...	...	1	...	...	...	20
Punjab	14	41	62	155	84	8	33	5	28	261	154	11	856
Bombay	...	2	17	7	1	...	...	...	...	...	1	3	31
Berar and Secunderabad	30	...	...	...	...	...	...	...	...	...	...	...	30
Central Provinces	...	...	1	...	...	...	...	...	...	...	...	...	1
Madras	...	...	...	...	...	...	4	...	...	...	...	...	4

TABLE XLVI—*continued.*

CHOLERA by months, jails, groups, and administrations.

Jails and Administrations.	Admissions from Cholera in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
B													
Agra District	...	...	...	...	1	...	...	...	...	...	...	...	1
Group VIII.—S.-E. Rajputana, Central India, and Gujarat	...	...	...	...	1	...	...	...	...	...	...	...	1
A													
Mandla	...	...	...	...	...	6	...	...	...	...	...	...	6
Bilaspur	...	...	2	2	11	2	2	...	...	...	...	...	19
Sambalpur	...	...	...	...	...	1	7	...	...	...	...	...	8
Balaghat	...	...	4	...	...	...	...	...	...	...	...	...	4
Seoni	...	...	...	...	2	1	1	...	...	...	...	...	4
Betul	...	...	...	...	...	...	4	...	...	...	...	...	4
Nagpur	...	...	5	...	...	...	...	...	...	...	...	...	5
Bhandara	...	...	...	...	...	1	...	...	...	...	...	...	1
B													
Yeotmahl	...	...	...	...	...	...	...	...	...	...	...	...	...
Amraoti	...	...	...	...	...	...	...	1	...	...	...	...	1
Akola	...	...	...	...	...	...	...	1	...	...	...	...	1
Dhulia	...	...	...	...	...	...	1	2	...	...	...	...	3
Nasik	...	...	...	...	...	...	...	1	1	...	...	...	2
Yerrowda	...	...	...	...	...	...	...	1	...	...	...	...	1
Dharwar	...	...	...	...	1	...	...	...	...	...	...	...	1
Group IX.—Deccan	...	...	11	2	14	11	15	6	1	...	...	...	60
Thana	...	...	...	...	...	...	10	53	...	...	...	...	63
Bombay House of Correction	...	...	...	...	...	...	1	...	...	...	...	...	1
Cannanore	...	...	...	...	...	...	...	3	...	...	...	...	3
Group X.—Western Coast	...	...	...	...	...	...	11	56	...	...	...	...	67
A													
Salem	...	...	...	...	...	...	...	...	...	...	...	...	...
Coimbatore	...	...	...	280	...	...	...	...	...	...	...	...	280
B													
Palamcottah	...	...	...	...	...	...	...	...	...	...	1	1	2
Madura	...	...	...	...	...	...	...	...	...	...	...	2	2
Vellore	...	...	...	...	16	6	...	...	...	...	...	...	22
Madras Penitentiary, natives	...	...	...	...	...	1	...	...	1	...	...	...	2
C													
Rajamundry	...	7	162	...	...	...	3	...	29	...	...	...	201
Vizagapatam	...	...	...	...	...	1	6	1	...	...	...	...	8
Berhampur	...	...	...	...	3	...	2	...	2	...	...	...	7
Group XI.—Southern India	...	7	162	280	19	8	11	1	32	...	1	3	524
Russellkonda	...	...	...	...	...	3	...	...	1	...	...	...	4
Group XII.—Hills	...	...	...	...	...	3	...	...	1	...	...	...	4
INDIA	...	10	253	289	44	50	145	96	55	4	7	6	959
Andamans	...	...	...	...	...	...	...	...	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	...	...	...	...	...
Assam	...	...	74	4	10	12	...	3	2	1	...	2	108
Bengal	...	...	...	...	...	8	2	1	...	...	1	1	13
N.-W. Provinces and Oudh	...	3	4	2	...	3	58	9	15	3	2	...	99
Punjab	...	...	2	1	1	5	48	20	4	...	3	...	84
Bombay	...	...	...	...	...	...	...	...	...	...	...	...	...
Berar and Secunderabad	...	...	...	...	1	...	12	57	1	...	...	...	71
Central Provinces	...	...	...	...	...	...	...	2	...	...	...	...	2
Madras	...	7	162	280	19	11	11	4	33	...	1	3	531

TABLE XLVII.

ENTERIC FEVER by months, jails, groups, and administrations.

Jails.*	Admissions from Enteric Fever in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	Total.
Port Blair	...	...	...	...	...	...	...	...	...	...	...	...	...
Tavoy	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwegyin	...	...	..	...	...	...	...	...	...	...	...	...	...
Rangoon (Europeans)	...	...	...	...	...	...	...	...	...	...	...	...	...
,, (natives)	1	...	...	..	...	...	...	...	...	1	..	...	2
Maubin	...	...	...	...	...	...	...	...	...	...	...	...	...
Bassein	...	...	...	...	...	...	...	...	...	...	...	...	...
Insein	...	...	...	...	1	...	...	...	...	...	...	...	1
GROUP I.—BURMA COAST AND BAY ISLANDS	1	...	...	...	1	...	...	...	...	1	...	...	3
Thayetmyo	1	...	...	...	...	...	...	...	..	...	...	...	1
Magwe	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandalay	...	...	...	...	...	...	...	...	...	...	...	...	...
Monywa	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	1	..	...	...	...	...	...	...	...	...	...	...	1
Newgong	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP III.—ASSAM	...	...	...	...	...	...	.	...	...	...	...	...	...
Mymensingh	...	...	...	...	...	...	...	...	...	...	...	...	...
Dacca	...	...	...	...	...	...	...	...	...	...	...	...	...
Tippera	...	...	...	...	...	...	...	...	..	...	...	...	...
Khulna	...	...	...	...	...	...	...	...	...	...	...	...	...
Presidency (natives)	...	...	...	...	...	...	...	...	...	...	...	...	...
Alipore	...	...	...	...	...	...	...	...	...	...	...	...	...
Burdwan	...	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Pabna	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahi	...	...	...	...	...	...	...	...	..	...	...	...	...
Bogra	...	...	...	...	...	...	...	...	...	...	...	...	...
Jalpaiguri	...	...	...	...	...	...	...	...	...	...	...	...	...
Purneah	...	...	...	...	...	...	...	...	...	...	...	...	...
Cuttack	...	...	..	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA	...	...	...	...	...	...	...	...	...	...	...	...	...
A													
Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...
B													
Gaya	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhagalpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Darbhanga	...	...	...	...	...	...	...	...	...	...	...	...	...
Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...
Buxar	...	...	...	...	...	...	...	...	...	...	...	...	...
Ghazipur	...	...	...	...	...	...	...	...	...	...	...	...	...
Basti	...	...	...	...	...	...	...	...	...	...	...	...	...
Partabgarh	...	...	...	...	...	...	...	...	...	...	...	...	...
Jaunpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad Central	1	...	...	...	...	...	...	...	...	...	...	...	1
,, District	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatehpur	...	...	...	...	...	...	...	...	...	...	...	...	...
Hamirpur	...	...	...	...	-	...	...	...	...	...	...	...	...
Orai	...	...	...	...	...	...	...	...	...	...	...	...	...
Unao	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow Central	...	...	...	...	...	...	...	...	...	...	...	...	...
,, District	...	...	...	...	...	...	...	...	...	...	...	...	...
Hardoi	...	...	...	...	...	...	...	...	...	...	...	...	...
Etawah	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatehgarh Central	...	...	...	...	1	...	...	...	1	...	...	...	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	1	...	...	...	1	...	...	...	1	...	...	...	3
A													
Meradabad	...	...	...	...	...	...	...	...	...	...	...	...	...
Muzaffarnagar	...	...	1	...	...	...	...	...	...	...	...	...	1
Meerut	...	...	1	...	...	...	...	...	...	...	...	...	1
B													
Ludhiana	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore Central	...	...	...	...	...	...	...	...	...	...	...	...	...
,, District	...	...	...	...	...	...	...	...	...	...	...	1	1
Gujranwala	...	...	...	...	...	...	...	...	...	...	...	...	...
Chinawan	...	...	...	...	...	...	...	...	...	...	...	...	...
Sialkot	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYAN	...	...	2	...	...	...	...	...	...	...	...	1	3

TABLE XLVIII.

SIMPLE CONTINUED FEVER by months, jails, groups, and administrations.

Jails.*	Admissions from Simple Continued Fever in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	17	15	15	14	44	38	6	8	13	21	15	18	224
Tavoy	1	...	...	...	...	1	...	...	...	...	...	...	2
Moulmein	1	3	4	...	2	3	12	4	3	8	6	14	60
Shwegyin	...	...	...	...	...	...	1	...	...	...	...	...	1
Rangoon (Europeans)	...	3	2	...	...	...	1	...	1	...	...	...	7
,, (natives)	24	42	27	12	27	9	40	26	30	40	34	25	342
Maubin	...	...	...	...	1	...	...	2	1	...	4	1	9
Bassein	1	...	...	8	6	53	7	4	11	5	8	5	108
Insein	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS	44	63	48	34	80	104	73	44	59	74	67	63	753
Thayetmyo	5	...	...	...	...	...	...	...	...	...	...	...	5
Magwe	...	...	1	...	1	1	...	1	...	...	1	...	5
Mandalay	...	...	...	...	...	...	...	...	16	17	25	20	78
Monywa	...	...	...	...	...	...	...	...	...	...	1	...	1
Shwebo	...	...	1	...	...	...	...	1	...	...	2	...	4
GROUP II.—BURMA INLAND	5	...	2	...	1	1	...	2	16	17	29	20	93
Newgong	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP III.—ASSAM	...	...	...	1	...	...	...	...	...	...	...	...	1
Mymensingh	...	...	...	...	...	3	1	...	...	...	...	...	4
Dacca	...	...	...	...	...	...	22	20	11	21	21	12	107
Tippera	5	...	...	...	1	2	2	7	9	12	10	14	62
Khulna	1	1	...	...	...	2	...	...	...	...	1	...	5
Presidency (natives)	...	...	8	5	11	6	10	1	...	...	...	...	41
Alipore	26	19	30	34	22	19	25	44	44	37	64	69	433
Burdwan	...	1	...	2	...	...	1	1	...	...	1	...	6
Faridpur	4	6	5	5	5	2	6	5	3	5	10	9	65
Pabna	8	1	3	...	...	...	...	...	...	...	...	...	12
Rajshahi	...	...	...	...	...	...	3	1	...	...	1	...	5
Bogra	...	...	3	1	...	...	...	...	...	...	...	...	4
Jalpaiguri	...	...	...	1	...	1	...	...	...	...	...	...	2
Purneah	...	...	...	...	2	1	1	5	3	...	...	...	12
Cuttack	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP IV.—BENGAL AND ORISSA	44	28	49	49	41	36	71	84	70	75	108	104	759
A													
Hazaribagh	9	9	10	8	21	64	18	13	32	17	9	22	232
B													
Gaya	...	...	4	1	7	1	...	1	1	...	...	...	15
Bhagalpur	16	17	17	19	11	8	1	...	...	15	7	2	113
Darbhanga	...	2	1	1	...	...	...	...	...	...	...	...	4
Arrah	...	3	...	...	...	...	...	...	...	...	...	...	3
Buxar	...	...	10	13	22	15	13	18	...	...	...	...	91
Ghazipur	...	...	...	...	2	...	...	...	...	...	...	...	2
Basti	...	...	...	...	...	...	...	...	...	1	5	...	6
Partabgarh	...	...	...	...	...	...	...	1	...	...	...	...	1
Jaunpur	...	...	...	1	...	...	...	...	...	...	...	...	1
Allahabad Central	...	...	...	...	2	3	...	1	1	...	...	...	7
,, District	...	1	...	...	1	2	...	...	...	...	...	...	4
Fatehpur	...	...	5	2	...	...	...	...	...	...	...	...	7
Hamirpur	...	...	1	1	...	...	...	...	...	...	...	...	2
Orai	...	...	...	...	2	4	2	...	...	...	...	...	8
Unao	1	...	...	...	4	6	2	5	...	...	...	...	18
Lucknow Central	...	...	...	2	1	...	3	...	...	...	...	...	6
,, District	1	1	1	...	1	...	...	1	...	...	...	...	5
Hardoi	1	...	...	4	7	12	24	...	..	...	...	5	53
Etawah	...	...	...	...	...	...	3	8	9	3	2	2	27
Fatehgarh Central	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	28	33	49	52	81	115	66	48	43	36	23	31	605
A													
Meradabad	1	1	1	3	1	2	...	1	4	...	...	1	15
Muzaffarnagar	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut	2	4	...	1	17	18	9	1	...	...	...	...	52
B													
Ludhiana	...	...	1	1	...	2	...	11	1	...	...	...	16
Lahore Central	...	...	...	1	...	1	...	...	...	...	...	...	2
,, District	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujranwala	...	...	...	...	...	...	...	1	...	...	...	...	1
Chinawan	...	2	...	...	...	2	...	...	...	...	...	...	4
Sialkot	...	...	...	2	...	...	...	...	...	1	...	...	3
Rawalpindi	...	2	3	6	...	...	5	2	11	...	1	1	31
GROUP VI.—UPPER SUB-HIMALAYAN	3	9	5	14	18	25	14	16	16	1	1	2	124

* Jails where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table XLII.

TABLE XLVII—*concluded.*

ENTERIC FEVER by months, jails, groups, and administrations.

TABLE XLVIII—*concluded.*

SIMPLE CONTINUED FEVER by months, jails, groups, and administrations.

Jails and Administrations.	Admissions from Enteric Fever in each month.													Admissions from Simple Continued Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Mooltan Central	...	...	...	...	...	...	1	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
C																									
Sind Gang	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	6	9	3	19
Hyderabad	...	...	1	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana	...	...	1	...	...	...	1	...	...	1	...	1	4	1	...	...	...	...	...	...	...	...	6	9	3	19
A																									
Rajkot	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Ahmedabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Group VIII.—South-East Rajputana, Central India, and Gujarat	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	2
A																									
Balaghat	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Seoni	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Chhindwara	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2	2	4	...	...	...	1	...	...	11
Nagpur	...	...	...	1	...	1	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhandara	...	...	...	...	...	...	...	...	...	...	...	...	...	1	7	4	7	1	6	1	...	1	...	1	...	35
Wardha	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	3
Chanda	...	...	...	...	1	..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B																									
Yeotmahl	...	...	...	...	...	...	...	...	...	...	..	...	...	...	1	1	...	...	...	...	1	4	...	...	...	7
Akola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	16
Basim	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Buldana	..	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...	3
Dharwar	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Group IX.—Deccan	...	...	...	1	1	1	1	...	...	...	...	...	4	6	10	6	11	4	10	1	7	5	1	2	16	79
Thana	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Ratnagiri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Mangalore	...	...	...	...	...	...	...	...	1	12	2	...	15	...	...	...	...	...	...	...	...	...	4	1	...	5
Cannanore	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2	2	1	1	4	1	5	2	1	2	3	28
Group X.—Western Coast	...	...	...	...	...	...	...	...	1	12	2	...	15	4	2	4	1	1	4	1	5	2	5	4	3	36
A																									
Salem	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	1	2	4	1	5	3	3	4	1	28
Coimbatore	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	1	2	1	3	2	...	2	3	4	3	25
B																									
Palamcottah	...	...	...	...	...	...	...	...	...	...	...	...	...	5	3	2	2	5	3	1	3	3	4	6	1	38
Madura	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	...	3	2	1	...	2	3	...	1	...	20
Tanjore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	1	2	4	...	1	...	...	2	1	19
Vellore	...	...	...	...	...	...	...	...	...	1	...	...	1	19	18	15	6	4	1	1	...	4	11	3	4	86
Madras Debtors', natives	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Madras Penitentiary, natives	...	...	...	...	...	...	...	...	...	...	...	...	...	5	4	7	5	4	2	17	26	12	9	9	8	108
Nellore	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	5	1	2	1	3	3	2	...	3	1	27
C																										
Rajamundry	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	2	1	23	29
Vizagapatam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	1	4	4	3	...	15
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	1	4	3	3	3	...	1	18
Group XI.—Southern India	...	...	...	...	...	...	...	...	...	1	...	...	1	38	41	41	21	23	20	30	46	36	39	36	43	414
Almora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Quetta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	2	...	3	8
Mercara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Russellkonda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	1	...	4
Group XII.—Hills	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	4	2	2	3	14
INDIA*	3	...	3	1	3	1	2	...	2	15	2	2	34	173	187	205	183	250	315	257	252	251	257	281	288	2,899
Andamans	...	...	...	...	...	...	...	...	...	..	...	...	...	17	15	15	14	44	38	6	8	13	21	15	18	224
Burma	2	...	...	...	1	...	...	...	...	1	...	...	4	32	48	35	20	37	67	67	38	62	70	81	65	622
Assam	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Bengal	...	...	...	...	...	...	...	...	...	...	...	...	...	69	59	91	91	102	124	103	116	103	107	124	128	1,217
North-Western Provinces and Oudh	1	...	2	...	1	...	...	...	1	...	...	...	5	6	7	8	14	38	47	43	18	14	4	8	8	215
Punjab	...	...	...	...	...	...	1	...	...	1	...	1	3	...	4	4	10	...	5	5	14	12	1	1	1	57
Bombay	...	...	1	...	...	...	...	...	...	...	...	1	2	2	...	3	...	...	...	...	...	...	...	7	10	3	25
Behar and Secunderabad	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	1	...	...	...	...	1	4	...	1	10	27
Central Provinces	...	...	...	1	1	1	1	...	...	...	...	...	4	4	7	5	11	4	10	1	6	1	1	1	...	51
Madras	...	...	...	...	...	...	...	...	1	13	2	...	16	42	43	43	22	24	24	32	51	40	44	40	46	451
Non-British Jails—																										
Kolhapur	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	3	2	5	6	9	2	26	9	10	9	83
Savantvadi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1

* Including Mercara and Quetta.

TABLE XLIX.

INTERMITTENT FEVER by months, jails, groups, and administrations.

Jails.*	Admissions from Intermittent Fever in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	323	315	423	671	1,209	1,625	1,700	844	616	521	570	499	9,316
Mergui	...	1	1	...	...	...	...	...	...	...	...	...	2
Tavoy	...	...	...	...	2	1	...	...	...	1	...	...	4
Moulmein	2	1	...	...	...	...	...	2	2	...	...	...	7
Shwegyin	6	5	5	3	5	9	8	6	5	5	8	3	68
Toungoo	4	1	2	2	6	8	4	8	6	...	2	1	44
Rangoon, natives	7	8	13	2	14	6	11	11	8	2	9	15	106
Maubin	...	...	...	...	...	...	...	1	...	...	...	...	1
Bassein	5	5	3	9	2	27	2	11	9	3	5	12	93
Insein	37	17	12	12	9	20	19	9	15	8	35	19	212
Henzada	3	2	4	...	...	3	3	...	...	...	1	1	17
Myanaung	...	1	1	1	1	1	2	2	4	4	5	3	25
Sandoway	...	...	...	...	...	4	...	1	2	...	...	1	8
Kyaukpyu	...	...	...	...	1	...	25	7	1	...	...	...	34
Akyab	2	1	6	2	4	1	1	...	1	3	...	...	21
Group I.—Burma Coast and Bay Islands	389	357	470	702	1,253	1,705	1,775	902	669	547	635	554	9,958
Paungdi	...	...	...	...	3	...	2	2	5	...	1	1	14
Prome	1	...	3	2	...	...	...	...	...	...	...	...	6
Thayetmyo	3	5	1	4	8	14	19	15	26	13	23	10	141
Taungdwingyi	...	...	1	...	...	1	...	1	...	...	...	...	3
Minbu	1	...	1	...	4	...	...	2	2	2	...	...	12
Yamethin	3	2	1	...	1	...	2	7	1	1	...	4	22
Meiktila	1	...	1	8	...	1	...	2	...	2	3	2	20
Pagan	...	...	1	...	1	...	1	...	...	...	...	1	4
Pakôkku	...	...	...	...	1	1	2	...	...	3	1	...	8
Myingyan	7	11	7	12	18	19	9	6	3	8	1	4	105
Mandalay	4	9	7	9	14	20	30	15	1	...	1	1	111
Monywa	...	...	...	...	1	...	1	1	...	1	...	...	4
Shwebo	...	1	...	1	...	...	...	...	...	...	...	1	3
Bhamo	...	...	...	...	...	...	2	2	...	...	2	...	6
Katha	...	...	1	4	3	5	6	5	5	11	16	2	58
Kindat	...	1	1	...	1	...	4	1	6	1	1	...	16
Group II.—Burma Inland	20	29	25	40	55	61	78	59	49	42	49	26	533
Cachar	1	...	1	5	3	8	11	3	5	5	4	2	48
Sibsagar	...	...	1	...	1	2	...	8	6	2	4	2	26
Dibrugarh	5	...	6	4	7	3	7	...	6	3	7	3	51
Tezpur	5	3	5	3	5	6	8	4	10	3	7	17	76
Nowgong	1	6	3	8	4	2	7	6	2	3	1	5	48
Gauhati	3	2	2	...	10	18	9	4	6	3	4	3	64
Sylhet	6	12	10	7	15	27	21	29	23	6	10	2	168
Group III.—Assam	21	23	28	27	45	66	63	54	58	25	37	34	481
Mymensingh	7	6	8	8	7	12	9	17	13	3	13	5	108
Dacca	32	25	25	28	13	23	12	10	6	42	42	10	268
Tippera	3	2	9	3	6	8	...	...	...	...	...	...	31
Chittagong	5	8	4	12	5	9	8	4	...	...	6	1	62
Noakhali	3	1	...	4	1	1	...	3	3	...	9	9	34
Backergunge	2	4	16	10	9	10	16	14	13	11	17	10	132
Khulna	...	2	...	...	...	...	...	1	1	...	...	...	4
Jessore	12	11	18	4	2	9	10	11	7	10	15	37	146
Baraset	2	6	1	...	2	2	6	20	19	16	16	11	101
Presidency, Europeans	...	...	...	2	1	1	...	2	1	...	...	...	7
Presidency, natives	6	19	7	6	3	1	11	34	17	21	12	6	143
Alipore	3	2	4	4	2	8	5	6	3	...	6	1	44
Hooghly	5	4	8	11	4	2	2	4	3	7	9	8	67
Burdwan	2	4	3	3	1	2	1	2	4	...	4	3	29
Krishnagar	4	6	1	2	3	...	1	1	1	2	3	1	25
Faridpur	8	4	2	8	1	3	3	5	5	12	9	3	63
Pabna	1	...	1	3	4	6	3	3	5	5	5	7	43
Murshidabad	3	6	5	4	5	3	9	3	10	23	4	5	80
Rajshahi	20	28	19	18	39	48	52	20	44	38	14	21	367
Bogra	5	1	1	4	1	4	12	23	11	4	11	5	82
Malda	5	6	5	3	1	3	8	4	7	9	27	8	86
Dinajpur	26	20	13	13	10	16	11	16	10	10	6	9	160
Rangpur	5	4	6	2	1	4	9	5	8	10	6	11	71
Jalpaiguri	5	2	2	...	...	...	1	...	...	...	2	...	12
Purneah	12	11	12	13	10	4	12	12	14	15	23	14	152
Naya Dumka	2	4	...	...	...	...	...	2	...	1	1	1	11
Suri	10	15	10	5	10	20	19	11	18	3	3	...	124
Bankura	5	5	12	3	5	9	14	11	21	11	8	2	106
Midnapur	26	16	12	10	11	10	28	17	27	26	46	27	256
Balasore	2	...	...	2	2	...	2	1	1	...	5	8	23
Cuttack	5	2	1	7	4	10	4	10	21	16	22	9	111
Puri	...	...	...	...	...	...	2	1	...	...	...	...	3
Group IV.—Bengal and Orissa	226	224	205	192	163	228	270	279	293	295	344	232	2,951

TABLE L.

REMITTENT FEVER by months, jails, groups, and administrations.

Admissions from Remittent Fever in each month.												
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
6	12	2	4	9	20	34	22	14	16	15	20	174
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	2	...	...	1	2	...	5
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	1	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
2	3	...	1	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	1	1	2	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	1
11	15	3	5	9	20	36	24	15	19	17	20	194
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	1	1	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	3	2	2	1	3	...	1	1	...	13
1	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	1	...	1
2	1	1	4	3	2	2	3	1	1	2	...	22
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	1	2	...	1	2	...	...	...	...	...	6
...	1	1	2	3	...	1	...	...	1	...	...	9
...	...	...	...	...	...	...	...	...	...	...	...	...
...	2	...	...	...	...	...	...	...	...	...	...	2
5	2	4	4	...	...	...	...	...	...	...	...	15
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1	1	4	6
1	...	...	...	...	...	...	...	4	2	...	...	8
1	...	...	...	...	...	...	...	...	2	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...
4	2	11	2	5	2	4	10	4	2	2	3	51
1	...	...	...	...	1	1	2	2	...	...	2	9
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	2	4	1	...	...	1	8
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	2	1	2	...	2	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	1	...	1	...	...	...	...	3
2	1	2	2	2	2	3	5	3	...	...	...	22
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	1
...	...	...	...	1	...	...	...	...	...	...	...	1
15	10	22	14	17	9	16	21	13	6	5	11	159

* Jails where neither Intermittent Fever nor Remittent Fever occurred are not shown in these tables.

For the annual ratios see Table XLII.

TABLE XLIX—*continued.*

INTERMITTENT FEVER by months, jails, groups, and administrations.

Jails.	Admissions from Intermittent Fever in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A													
Chaibassa	9	4	2	3	3	4	2	8	7	4	4	1	51
Purulia	...	3	...	3	10	7	14	5	8	7	3	...	60
Ranchi	2	...	2	2	5	5	4	6	4	1	1	1	33
Palamau	3	3	1	...	...	2	3	7	12	...	...	1	32
Hazaribagh	6	10	21	11	16	7	7	5	10	5	3	3	104
B													
Gaya	15	16	14	10	18	9	15	29	34	91	93	61	405
Bhagalpur	17	24	27	21	1	4	24	37	21	30	21	27	254
Monghyr	1	...	3	2	1	1	5	12	2	1	3	1	32
Darbhanga	2	3	...	3	8	2	1	4	7	9	2	...	41
Champaran	10	18	41	25	11	20	18	18	16	15	8	2	202
Muzaffarpur	4	7	10	10	7	5	4	7	14	11	10	7	96
Patna	8	1	6	9	7	6	11	11	12	24	22	6	123
Arrah	...	...	...	3	...	2	7	3	3	3	1	7	29
Chapra	2	8	5	2	1	3	5	7	7	11	15	12	78
Buxar	19	17	11	32	17	10	28	25	217	300	277	192	1,145
Ghazipur	3	1	5	2	2	1	...	4	2	1	5	4	30
Azamgarh	9	9	3	11	13	16	11	18	15	10	11	24	150
Gorakhpur	10	10	16	8	12	18	14	10	12	12	18	8	148
Basti	9	9	4	6	5	3	11	16	23	18	31	9	144
Fyzabad	5	12	14	14	14	3	10	14	24	28	57	33	228
Sultanpur	2	2	2	1	6	6	9	30	69	80	57	17	281
Rai Bareli	2	6	9	11	6	9	12	8	5	17	7	2	94
Partabgarh	6	4	4	2	9	2	3	4	7	9	3	3	56
Jaunpur	6	5	5	4	4	13	12	14	12	17	23	8	123
Benares Central	19	32	26	29	26	21	13	32	42	87	115	126	568
,, District	7	4	4	6	7	10	14	18	22	28	15	15	150
Chunar	38	32	32	65	64	37	64	35	39	50	96	43	595
Mirzapur	9	12	12	15	3	14	10	19	31	45	28	21	219
Allahabad Central	38	34	37	58	58	56	47	84	183	110	44	24	773
,, District	19	14	51	28	28	26	22	18	23	37	27	23	316
Banda	10	7	4	13	3	8	4	11	28	16	8	10	122
Fatehpur	1	7	...	...	...	...	...	6	2	...	10	4	30
Hamirpur	14	8	10	19	8	10	3	16	44	33	56	19	240
Orai	8	7	10	8	5	7	12	66	119	23	21	11	297
Cawnpore	2	...	1	...	3	...	2	1	3	6	5	3	26
Unao	1	2	4	2	4	5	3	4	36	70	26	14	171
Lucknow Central	4	6	7	6	5	4	5	15	6	6	4	38	106
,, District	4	7	9	9	6	5	10	4	5	3	6	16	84
Barabanki	1	2	...	...	5	1	...	1	4	13	2	...	29
Gonda	11	4	19	13	17	9	14	21	22	51	28	15	224
Bahraich	13	30	59	37	30	18	24	19	49	49	18	13	359
Kheri	12	41	26	23	15	8	11	17	31	15	7	6	212
Sitapur	4	11	23	4	6	5	6	8	26	29	9	2	133
Hardoi	...	2	...	...	...	...	2	...	14	36	21	7	82
Etawah	7	...	4	8	6	1	...	...	...	...	...	...	26
Mainpuri	7	3	1	1	6	4	13	28	43	44	46	6	202
Etah	6	12	13	12	12	9	21	21	73	66	42	9	296
Fatehgarh Central	17	16	25	72	38	29	50	49	166	229	63	16	770
,, District	2	9	1	6	2	5	15	26	74	69	40	22	271
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	404	474	583	629	533	450	595	821	1,628	1,819	1,412	892	10,240
A													
Shahjahanpur	8	3	8	13	14	10	8	17	47	53	25	13	219
Bareilly Central	174	122	81	95	72	68	64	155	195	291	123	86	1,526
,, District	27	28	23	11	8	12	10	23	21	19	40	36	258
Budaon	4	2	5	12	10	5	7	29	55	41	22	14	266
Aligarh	6	3	5	3	13	23	26	13	34	31	19	9	179
Bulandshahr	6	5	10	7	5	2	3	2	21	14	13	4	92
Moradabad	9	10	3	3	6	11	14	18	41	107	47	28	297
Bijnor	1	4	1	1	1	1	...	1	...	4	1	1	16
Dehra Dun	...	1	...	1	...	1	3	4	2	2	3	...	17
Saharanpur	2	...	2	4	3	7	8	13	19	19	4	3	84
Muzaffarnagar	4	2	3	8	3	3	3	27	48	14	1	8	124
Meerut	1	3	10	24	4	7	17	98	104	180	108	45	691
Delhi	9	2	2	23	14	6	7	41	167	139	67	17	494
Rohtak	7	5	5	5	21	15	20	45	62	78	33	17	313
Hissar	5	1	4	1	2	6	4	7	10	8	4	11	63
Karnal	1	1	...	2	1	1	7	4	5	9	3	2	36
Umballa	12	21	27	29	9	18	42	27	52	39	22	13	311
B													
Ludhiana	...	1	8	15	4	6	...	25	80	77	22	6	244
Hoshiarpur	...	...	...	1	2	...	...	3	4	6	1	...	17
Jullundur	2	2	5	3	8	2	...	4	18	8	7	1	60
Ferozepore	...	...	...	2	...	1	5	28	49	20	9	11	125
Amritsar	14	5	7	12	7	5	1	2	8	5	11	21	98
Lahore Central	54	39	57	61	144	69	56	132	430	473	264	235	2,014
,, District	7	2	4	4	6	26	3	16	55	155	69	88	435
,, Female	...	1	1	6	9	3	2	4	32	43	12	23	136
Gurdaspur	2	...	2	1	...	6	5	4	2	1	1	1	25
Gujranwala	4	3	10	20	8	6	9	7	4	20	13	14	118
Chinawan	13	13	15	15	19	9	1	...	...	...	...	...	85
Sialkot	2	2	6	3	3	3	7	8	16	21	8	4	83
Gujrat	...	...	1	3	...	1	1	...	...	1	3	...	10
Jhelum	26	22	14	9	8	5	8	3	23	36	49	43	246
Rawalpindi	20	7	4	9	13	28	39	100	174	174	144	96	808
GROUP VI.—UPPER SUB-HIMALAYAN	420	310	323	406	417	366	374	860	1,868	2,088	1,148	850	9,430

TABLE L—*continued.*

REMITTENT FEVER by months, jails, groups, and administrations.

Admissions from Remittent Fever in each month.													
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1	2	1	1	...	...	1	2	...	...	...	...	8
...	2	1	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	1	1	...	...	...	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	2	...	...	...	...	2	2	2	...	...	9
...	1	...	...	...	1	...	...	1	...	...	2	5
...	1	...	1	...	...	...	...	...	1	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	1	...	...	...	2
...	...	1	2	1	1	...	...	...	...	...	...	5
1	...	1	...	...	...	...	1	...	1	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...

Jails.	Admissions from Intermittent Fever in each month.													Admissions from Remittent Fever in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Peshawar	14	15	14	22	20	22	24	12	75	149	165	47	579	...	1	2	...	...	...	...	...	1	...	...	...	4
Kohat	1	1	5	2	2	2	1	7	10	12	22	8	73	...	...	...	...	1	...	...	1	1	...	...	...	3
Bannu	6	1	3	2	3	1	3	3	12	15	15	11	75	...	...	...	...	...	...	...	1	...	...	2	2	5
Shahpur	3	4	9	7	3	10	15	39	80	92	93	20	375	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhang	10	3	6	4	6	14	24	13	37	92	82	30	321	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery	33	26	22	7	8	8	9	24	55	107	251	219	769	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan Central	18	17	35	19	25	27	35	29	133	215	226	158	937	...	...	...	...	...	...	...	...	...	...	...	...	...
,, District	4	10	7	12	1	1	7	1	15	28	48	35	160	...	...	...	...	2	...	...	...	...	...	...	...	2
Dera Ismail Khan	6	3	10	4	7	1	1	7	24	60	54	42	219	...	...	...	...	...	6	7	...	...	...	...	...	13
Dera Ghazi Khan	6	16	10	14	10	5	12	24	66	137	46	29	375	...	...	...	...	...	...	...	...	...	...	...	...	...
C																										
Shikarpur	2	2	2	8	3	3	4	3	18	11	3	1	60	1	...	...	...	...	...	...	...	...	1	...	...	2
Sind Gang	...	4	3	3	...	...	...	1	1	2	...	...	14	...	1	2	13	1	...	...	...	...	1	...	3	21
Hyderabad	11	10	6	12	1	8	5	16	15	60	29	28	201	...	...	...	1	...	...	...	...	...	...	...	...	1
Kurrachee	18	8	5	3	7	12	9	8	16	12	10	9	117	...	...	1	...	...	...	...	...	...	...	...	...	1
Group VII.—N.-W. Frontier, Indus Valley, and N.-W. Rajputana	132	120	137	119	96	114	149	187	557	992	1,044	637	4,284	1	2	5	14	4	6	7	2	2	2	2	5	52
A																										
Rajkot	1	1	...	2	1	...	...	1	6	8	6	2	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad	16	20	14	15	3	5	16	28	29	56	39	67	308	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Ajmere	1	...	1	2	...	1	...	...	4	9	5	5	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Muttra	3	3	2	3	6	4	7	5	34	45	9	1	122	...	1	...	...	...	...	...	...	...	...	...	...	1
Agra Central	7	5	19	31	51	22	15	48	135	241	178	98	850	...	...	...	...	...	...	...	...	...	...	1	...	1
,, District	10	4	20	22	6	7	6	54	73	43	27	22	294	...	...	...	...	...	...	...	1	...	...	...	...	1
Jhansi	5	4	2	2	1	2	2	9	12	4	6	1	50	...	...	...	...	...	...	...	...	...	...	...	...	...
Group VIII.—S.-E. Rajputana, Central India, and Gujarat	43	37	58	77	68	41	46	145	293	406	270	196	1,680	...	1	...	...	...	...	...	1	...	...	1	...	3
A																										
Damoh	...	6	4	1	2	2	4	7	5	4	1	1	37	...	...	...	...	...	...	...	...	1	...	...	1	2
Saugor	2	12	4	8	6	5	7	25	49	37	16	3	174	...	1	...	...	2	...	...	...	...	...	...	...	3
Jubbulpore	15	8	27	14	12	10	27	22	42	59	70	54	360	...	...	...	...	...	...	...	...	...	...	...	...	...
Narsinghpur	5	5	4	3	4	1	4	4	7	20	14	20	91	...	...	...	...	...	...	...	...	1	...	...	...	1
Mandla	2	2	3	2	6	1	1	5	3	4	5	1	35	1	...	1	8	5	2	...	2	1	3	...	...	23
Bilaspur	5	5	4	1	2	1	1	4	23	32	8	2	88	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambalpur	1	...	...	1	...	...	2	2	...	2	1	1	10	...	...	...	...	...	...	...	...	1	1	...	1	3
Raipur	4	...	1	1	...	1	...	5	14	21	15	8	70	...	...	...	...	...	...	...	...	...	...	...	...	...
Balaghat	4	...	...	1	1	...	...	...	...	3	1	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Seoni	4	2	4	5	2	3	6	2	12	5	6	5	56	1	1	1	...	...	...	...	1	...	...	1	...	5
Chhindwara	...	6	5	1	...	...	3	4	12	7	8	5	51	1	...	...	...	...	...	...	...	...	...	...	...	1
Hoshangabad	3	...	1	1	2	...	...	4	9	17	14	9	60	...	...	...	...	...	...	...	...	...	...	...	...	...
Nimar	5	4	...	3	...	2	1	2	2	1	2	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...
Betul	...	...	...	1	...	...	1	...	4	11	3	...	20	...	...	1	1	...	...	...	1	...	...	...	...	3
Nagpur	14	12	15	10	6	15	16	42	49	67	72	53	371	...	...	...	...	...	...	...	...	2	...	...	...	2
Bhandara	5	1	...	...	...	...	...	1	10	21	8	1	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Wardha	2	2	2	4	2	2	3	...	17	12	9	8	63	...	...	...	...	2	...	...	...	...	...	...	...	2
Chanda	3	2	1	...	3	2	4	3	1	2	1	1	23	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Secunderabad	...	...	...	...	...	...	...	...	4	1	5	1	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Yeotmahl	...	...	...	2	...	...	...	2	3	3	2	1	13	...	...	...	...	2	...	...	...	...	...	...	...	2
Amraoti	5	1	6	5	1	1	3	13	21	18	6	11	91	...	...	2	...	...	...	...	...	...	...	...	...	2
Ellichpur	1	1	2	2	...	...	3	11	21	10	12	10	73	...	...	...	...	...	...	...	...	...	...	...	...	...
Akola	2	8	3	3	2	2	6	12	12	28	22	6	106	...	...	...	...	...	...	...	...	...	...	...	...	...
Basim	...	...	...	...	...	1	2	3	1	2	2	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Buldana	...	2	4	...	1	1	3	4	2	5	2	3	27	...	...	...	...	...	...	...	...	...	...	...	...	...
Dhulia	7	6	6	1	1	2	3	10	3	6	...	9	54	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasik	...	...	...	...	...	1	...	...	1	...	2	2	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Yerrowda	10	16	26	22	17	21	50	42	60	125	117	111	617	...	...	...	...	...	...	...	...	...	...	...	...	...
Bijapur District	29	9	4	6	5	2	1	6	3	20	13	29	127	...	...	...	...	...	...	...	1	...	...	...	1	2
Deccan Gang	4	6	20	10	3	2	6	19	16	19	17	17	139	...	1	1	...	...	...	...	...	...	...	...	...	2
Dharwar	5	9	4	5	10	8	4	1	4	10	4	...	64	...	...	...	...	...	...	...	...	...	...	...	...	...
Group IX.—Deccan	137	125	150	113	88	86	161	255	410	572	458	372	2,927	3	3	6	9	11	2	...	5	4	6	1	3	53
Thana	66	31	23	19	15	8	15	14	32	20	10	30	283	82	47	19	7	4	...	1	2	2	6	...	...	170
Bombay Common	...	1	2	...	...	4	1	2	4	2	1	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
,, House of Correction	1	...	4	...	...	3	4	1	2	4	8	2	29	...	3	...	...	...	...	...	...	...	...	...	2	5
Ratnagiri	...	...	...	1	...	1	5	3	1	1	...	3	15	...	...	...	...	...	...	...	1	...	...	...	...	1
Karwar	1	...	...	...	1	2	...	1	...	2	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore	1	...	...	1	...	1	2	3	2	1	1	2	14	...	...	...	...	...	...	...	2	2	1	...	...	5
Cannanore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Group X.—Western Coast	69	32	29	21	16	19	27	24	41	30	20	37	365	82	50	20	7	4	...	1	5	4	7	...	2	182

TABLE XLIX—*concluded.*

INTERMITTENT FEVER by months, jails, groups, and administrations.

JAILS AND ADMINISTRATIONS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A													
Bellary	10	5	5	3	4	3	3	8	4	5	4	5	59
Salem	...	1	...	...	...	1	2	1	...	2	1	...	8
Coimbatore	3	1	7	1	5	2	...	1	3	4	2	...	29
B													
Palamcottah	...	...	...	...	...	...	...	...	...	1	...	...	1
Madura	3	1	5	1	1	3	8	5	4	2	5	5	43
Trichinopoly	9	9	10	8	7	10	11	9	21	60	18	15	187
Tanjore	1	...	...	...	2	...	...	...	2	1	...	2	8
Cuddalore	3	4	...	2	1	...	...	1	...	...	1	1	13
Vellore	48	28	11	8	18	9	11	4	19	24	11	27	218
Madras Debtors', natives	3	...	...	2	...	...	...	...	...	...	...	...	5
Madras Penitentiary, natives	2	5	2	2	4	2	1	4	1	1	3	3	30
Madras Penitentiary, Europeans	...	...	...	...	...	...	...	...	...	...	...	2	2
Nellore	...	...	...	...	...	...	...	...	...	...	1	1	2
C													
Rajamundry	20	17	32	12	3	8	11	17	45	65	91	120	441
Vizagapatam	...	...	1	...	5	2	7	3	5	6	2	...	31
Berhampur	1	1	...	...	1	...	...	...	...	9	1	1	14
GROUP XI.—SOUTHERN INDIA	103	72	73	39	51	40	54	53	104	180	140	182	1,091
Shillong	...	...	...	...	...	4	2	2	2	1	...	...	11
Darjeeling	2	3	2	3	3	4	2	4	3	1	2	5	34
Almora	...	...	1	1	...	1	...	1	1	...	...	1	6
Simla	2	...	...	...	...	...	1	1	3	...	1	...	8
Dharmsala	3	3	1	1	4	4	4	12	6	6	3	5	52
Abbottabad	1	2	1	2	3	4	2	4	3	...	1	6	29
Quetta	...	...	...	1	...	1	...	4	1	...	1	1	10
Mercara	...	1	1	3	1	...	...	...	...	...	1	3	10
Russellkonda	1	...	2	1	...	...	2	...	...	...	2	...	8
GROUP XII.—HILLS	9	9	8	12	11	18	14	28	19	8	11	21	168
Extra India—Aden	...	1	1	...	...	...	...	...	...	...	...	...	2
INDIA*	1,973	1,813	2,090	2,377	2,796	3,194	3,606	3,667	5,989	7,004	5,568	4,033	44,110
ANDAMANS	323	315	423	671	1,209	1,625	1,700	844	616	521	570	499	9,316
BURMA	86	71	72	71	99	141	153	117	102	68	114	81	1,175
ASSAM	21	23	28	27	45	70	65	56	60	26	37	34	492
BENGAL	326	341	350	331	271	319	420	467	670	808	809	558	5,670
N.-W. P. AND OUDH	573	559	635	734	631	549	634	1,154	2,186	2,415	1,575	941	12,586
PUNJAB	285	228	295	320	370	215	355	636	1,710	2,226	1,749	1,213	9,702
BOMBAY	171	124	120	107	67	82	123	156	211	358	259	310	2,088
BERAR AND SECUNDERABAD	8	12	15	12	4	5	17	45	64	67	51	32	332
CENTRAL PROVINCES	74	67	75	57	48	45	80	132	259	325	254	172	1,588
MADRAS	105	72	75	41	51	41	58	56	106	181	143	184	1,113
NON-BRITISH JAILS—													
Sadra	...	...	...	...	...	...	1	..	...	...	...	...	1
Kolhapur	1	...	3	...	...	...	3	2	10	4	...	2	25
Savantvadi	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE L—*concluded.*

REMITTENT FEVER by months, jails, groups, and administratons.

JAILS AND ADMINISTRATIONS.	ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A													
Bellary	...	...	...	...	...	...	...	..	...	...	...	...	...
Salem	...	...	...	...	...	...	...	...	...	...	...	...	...
Coimbatore	...	...	...	...	...	...	...	...	...	...	...	...	...
B													
Palamcottah	...	...	...	...	...	...	1	..	...	...	...	...	1
Madura	...	1	...	...	...	1	...	...	...	...	...	...	2
Trichinopoly	...	...	1	...	...	1	...	...	...	...	...	...	2
Tanjore	...	...	...	...	...	...	...	...	...	...	...	...	...
Cuddalore	...	...	...	...	...	...	...	...	...	...	...	...	...
Vellore	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Debtors', natives	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, natives	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, Europeans	...	...	...	...	...	...	...	...	...	...	...	...	...
Nellore	...	...	...	...	...	...	...	...	...	...	...	...	...
C													
Rajamundry	...	...	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam	...	...	...	...	...	...	...	...	...	...	...	...	...
Berhampur	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	...	1	1	...	..	2	1	...	...	...	...	...	5
Shillong	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora	...	...	...	...	...	...	...	...	...	...	...	...	...
Simla	...	...	...	...	...	...	...	...	1	...	...	...	1
Dharmsala	...	...	...	1	...	1	...	...	...	...	...	...	2
Abbottabad	...	1	...	...	1	...	...	...	...	...	...	...	2
Quetta	...	...	...	...	...	...	...	...	...	...	...	...	...
Mercara	...	...	...	...	...	...	...	...	...	...	...	...	...
Russellkonda	1	...	...	...	...	...	...	...	...	...	...	...	1
GROUP XII.—HILLS	1	1	....	1	1	1	...	...	1	...	...	...	6
Extra India—Aden	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA*	130	121	98	97	76	64	88	157	81	69	48	54	1,083
ANDAMANS	6	12	2	4	9	20	34	22	14	16	15	20	174
BURMA	7	4	2	5	3	2	4	5	2	4	4	...	42
ASSAM	...	...	1	2	...	1	2	...	...	...	...	...	6
BENGAL	18	17	32	20	19	12	19	27	18	10	5	13	210
N.-W. P. AND OUDH	8	26	27	28	18	15	18	86	33	22	20	8	309
PUNJAB	4	7	4	8	11	10	9	7	6	2	3	5	76
BOMBAY	83	52	23	21	5	...	1	4	2	8	...	6	205
BERAR AND SECUNDERABAD	...	...	2	...	2	...	...	...	...	...	...	...	4
CENTRAL PROVINCES	3	2	3	9	9	2	...	4	4	6	1	2	45
MADRAS	...	1	2	...	...	2	1	2	2	1	...	...	11
NON-BRITISH JAILS—													
Sadra	...	...	...	...	...	...	...	...	...	...	...	...	...
Kolhapur	...	...	...	...	...	...	...	...	...	...	...	...	...
Savantvadi	...	...	...	...	...	...	...	...	...	...	...	1	2

* Including Ajmere, Quetta, and Mercara.

TABLE LI.

PNEUMONIA by months, jails, groups, and administrations.

TABLE LII.

DYSENTERY by months, jails, groups, and administrations.

Jails.*	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Port Blair	4	3	1	1	1	4	3	8	3	4	4	1	37	58	56	42	66	70	131	147	107	64	69	64	78	952
Tavoy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	3	...	1	...	...	1	9
Moulmein	...	...	1	...	1	1	1	1	...	...	...	...	5	6	6	7	7	6	12	17	11	10	13	8	13	116
Shwegyin	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	3	2	2	14	14	5	6	1	6	1	61
Toungoo	...	..	...	...	...	...	...	...	1	...	...	1	2	...	2	1	4	2	9	7	6	3	3	...	2	39
Rangoon, Europeans	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	1	...	4
Rangoon, natives	6	2	1	1	3	3	1	3	2	3	3	3	31	7	5	2	...	5	10	1	...	2	5	11	3	51
Maubin	...	...	...	...	1	1	...	...	...	...	1	2	5	...	...	...	...	...	...	1	1	2	2	...	1	7
Bassein	...	...	...	1	2	...	...	...	1	...	...	2	6	...	...	...	...	3	5	2	3	...	1	3	...	17
Insein	...	2	2	2	1	2	...	...	...	1	...	1	11	8	6	7	6	5	7	6	8	3	4	2	6	68
Henzada	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	3
Myanaung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	1	4
Kyaukpyu	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	...	3	8	19	4	7	6	9	2	60
Akyab	1	...	...	...	...	...	3	2	...	1	1	1	9	2	...	2	9	5	5	7	4	5	6	6	2	53
Group I.—Burma Coast and Bay Islands	11	7	5	5	9	11	8	14	7	9	9	12	107	87	77	66	91	104	206	224	153	103	110	110	110	1,444
Paungdi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	1	1	...	...	...	5
Prome	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	...	1	...	...	1	...	6
Thayetmyo	...	...	...	1	1	3	1	...	2	...	3	3	14	2	3	1	...	2	4	...	...	...	1	2	1	16
Taungdwingyi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	1	...	...	4
Magwe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	3
Minbu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	1	...	...	4
Yamethin	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	1	1	...	2	2	...	9
Meiktila	...	...	...	...	...	...	1	...	...	...	...	...	1	1	2	3	1	...	1	3	1	2	...	...	2	16
Pagan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	1	1	...	...	7
Pakôkku	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2
Myingyan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	3	1	7	5	...	21
Mandalay	1	1	2	2	1	2	...	1	2	...	2	...	14	8	8	6	14	13	14	15	6	4	14	18	22	142
Monywa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	3
Shwebo	...	...	...	...	...	...	...	...	...	...	1	...	1	1	1	...	1	...	...	1	2	...	...	...	1	7
Bhamo	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	2	5	7	2	2	...	3	...	1	5	28
Katha	...	1	...	...	...	...	1	...	...	...	...	...	2	1	...	...	...	...	1	1	1	2	3	1	4	14
Kindat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	1	...	1	7
Group II.—Burma Inland	1	2	2	3	2	5	3	1	4	1	6	3	33	14	15	18	24	23	25	33	22	21	31	31	37	294
Cachar	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	2	2	4	...	2	5	5	3	2	...	29
Sibsagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	1	5	...	1	1	1	...	13
Dibrugarh	1	...	...	1	...	...	1	...	...	...	1	...	4	1	...	2	2	5	4	9	5	1	7	7	2	45
Tezpur	1	1	...	...	...	...	...	1	..	...	...	...	3	...	1	1	1	...	...	...	...	1	...	1	3	8
Nowgong	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	3
Gauhati	...	...	...	...	...	...	...	...	1	...	...	...	1	2	1	1	9	4	3	12	9	10	4	1	...	56
Dhubri	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	3
Sylhet	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	13	20	8	22	10	17	8	5	3	112
Group III.—Assam	2	1	...	1	...	...	1	1	1	...	1	...	8	8	5	12	31	35	16	50	29	35	23	17	8	269
Mymensingh	...	...	...	...	1	...	...	1	...	...	...	...	2	5	7	9	11	6	3	8	9	3	9	5	10	85
Dacca	4	2	2	2	1	1	...	...	1	...	...	...	13	13	22	20	32	15	19	26	17	11	25	20	18	238
Tippera	...	...	...	...	...	...	...	...	...	...	...	...	...	17	4	10	4	2	14	3	3	6	11	7	10	91
Chittagong	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	1	15	14	9	...	...	2	7	49
Noakhali	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	3	8	19	14	1	11	11	4	4	3	83
Backergunge	1	1	...	1	2	...	...	..	...	...	...	...	5	9	12	9	19	28	34	21	13	19	11	14	15	204
Khulna	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	...	...	...	...	5	...	...	2	...	9
Jessore	6	1	4	4	2	3	2	5	..	3	5	5	40	18	35	30	22	26	20	44	35	36	13	20	17	316
Baraset	2	...	...	...	...	...	...	...	1	1	...	...	4	6	2	6	7	9	11	13	17	19	19	9	5	123
Presidency, Europeans	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	3
Presidency, natives	1	3	...	2	2	...	1	1	...	1	...	...	11	7	8	6	12	2	...	11	21	16	19	52	35	189
Alipore	8	4	1	3	...	1	2	3	3	5	5	6	41	16	30	79	45	37	27	40	34	47	54	56	69	534
Hooghly	...	...	2	1	1	1	...	...	...	...	...	2	7	2	6	18	16	7	7	17	16	18	20	28	17	172
Burdwan	...	...	...	4	...	...	1	...	...	...	1	...	6	2	2	5	2	...	2	2	2	...	...	1	1	19
Krishnagar	1	1	...	...	...	...	...	...	...	...	...	...	2	5	...	3	3	6	3	1	2	...	3	4	1	31
Faridpur	2	4	3	...	...	...	...	...	2	2	1	...	14	10	16	19	16	17	21	24	20	15	25	14	3	200
Pabna	...	...	...	...	...	...	1	...	...	...	...	...	1	2	3	4	4	1	1	...	2	4	8	4	1	34
Murshidabad	...	1	...	...	...	...	...	...	...	1	...	...	2	2	1	3	5	1	6	5	10	3	...	2	1	39
Rajshahi	1	2	...	...	...	1	...	...	...	...	2	...	6	...	...	...	...	...	...	2	8	...	...	...	1	11
Bogra	...	...	...	...	...	...	...	...	...	...	1	...	...	15	1	5	6	8	6	8	11	10	9	6	4	89
Malda	...	1	...	...	...	...	...	...	...	...	...	1	2	2	2	3	2	1	2	3	1	4	...	1	...	21
Dinajpur	...	...	...	...	...	...	...	...	...	...	1	...	1	2	6	7	13	11	3	3	7	8	7	6	3	86
Rangpur	...	...	...	...	...	...	...	...	...	...	...	...	...	2	9	2	5	1	8	3	3	...	8	6	2	49
Jalpaiguri	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	1	1	...	1	1	2	3	1	...	1	12
Purneah	1	..	1	...	...	...	...	...	5	...	...	...	7	8	3	4	15	7	10	4	6	10	13	6	13	99
Naya Dumka	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	...	1	...	...	1	1	4
Suri	...	...	...	...	...	1	1	...	2	1	...	1	6	...	...	...	...	...	2	3	21	31	6	1	...	64
Bankura	1	...	6	...	...	...	...	...	...	...	...	...	7	5	3	11	6	1	7	5	...	5	3	1	1	48
Midnapore	5	6	2	...	...	1	...	2	...	3	4	4	27	24	9	13	16	5	8	9	11	2	4	5	5	111
Balasore	...	1	...	...	...	...	...	...	...	...	...	...	1	3	4	2	2	1	1	3	2	...	...	...	1	19
Cuttack	1	1	1	...	1	...	1	...	...	...	1	2	8	...	1	6	2	4	1	12	8	2	7	1	2	46
Puri	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	2	...	...	3
Group IV.—Bengal and Orissa	34	28	23	17	10	9	10	12	15	18	22	21	219	189	189	281	274	217	248	286	308	283	281	278	247	3,081

*Jails where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table XLII.

TABLE LI—*continued.*

PNEUMONIA by months, jails, groups, and administrations.

Jails.	Admissions from Pneumonia in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A													
Chaibassa	...	...	1	...	...	1	1	...	...	...	...	...	3
Purulia	...	2	3	...	1	..	...	...	...	...	...	...	6
Ranchi	...	...	...	1	...	...	...	...	...	...	...	...	1
Palamau	...	...	...	...	...	...	...	...	...	...	...	...	...
Hazaribagh	1	1	1	1	..	...	...	...	1	1	...	2	8
B													
Gaya	1	...	...	...	...	...	...	...	1	...	...	1	3
Bhagalpur	1	1	2	...	1	1	1	...	1	5	...	...	13
Monghyr	...	...	...	1	...	...	...	...	1	...	...	...	2
Darbhanga	2	...	...	...	...	1	...	...	1	...	...	...	4
Champaran	1	...	...	1	1	...	...	...	...	...	...	...	3
Muzaffarpur	...	...	...	...	...	...	...	1	...	..	...	...	1
Patea	...	...	...	1	...	...	...	1	...	...	...	...	2
Arrah	...	...	...	...	...	...	...	...	1	3	...	2	6
Chapra	...	...	...	...	...	...	...	...	...	...	...	...	...
Buxar	1	1	...	...	...	...	...	...	...	...	1	4	7
Ghazipur	...	4	5	...	...	...	...	2	...	..	1	1	13
Azamgarh	3	3	...	...	...	...	...	...	...	2	...	...	8
Gorakhpur	2	1	4	...	...	1	2	...	3	2	...	1	16
Basti	1	1	...	...	..	1	...	...	...	...	1	...	4
Fyzabad	...	2	1	...	...	...	1	2	...	...	...	...	6
Sultanpur	1	...	1	...	1	...	...	...	...	...	...	3	6
Rai Bareli	...	...	...	1	...	1	...	1	1	...	...	...	4
Partabgarh	1	1	...	...	1	...	...	...	...	...	...	...	3
Jaunpur	1	...	...	1	...	1	...	1	...	...	...	...	4
Benares Central	1	...	...	...	...	...	...	3	7	...	2	3	16
„ District	...	1	1	...	1	1	1	...	1	2	...	2	10
Chuna	1	...	...	...	...	...	...	...	...	...	...	1	2
Mirzapur	3	6	7	2	3	...	4	2	1	2	...	1	31
Allahabad Central	1	2	6	1	7	8	8	3	...	3	1	1	41
„ District	4	5	4	2	4	7	2	6	5	...	1	6	46
Banda	2	...	1	4	2	3	2	1	4	7	6	...	32
Fatehpur	...	1	...	1	...	...	...	...	4	...	...	2	8
Hamirpur	...	1	1	...	...	...	...	...	1	...	...	2	5
Orai	1	...	2	...	...	...	...	1	1	...	1	1	7
Cawnpore	4	2	...	...	1	...	1	...	...	...	...	1	9
Unao	...	2	...	...	...	...	...	...	...	...	...	...	2
Lucknow Central	3	2	7	5	3	2	2	1	1	2	...	...	28
„ District	3	2	1	...	1	...	...	...	...	...	...	...	7
Barabanki	...	1	...	...	...	...	...	...	...	1	...	...	2
Gonda	...	1	1	1	3	4	2	...	2	...	3	...	17
Bahraich	2	3	2	2	...	...	...	...	...	6	1	7	23
Kheri	5	2	3	...	1	2	...	...	2	...	2	...	17
Sitapur	2	6	6	4	1	...	...	...	1	2	...	...	22
Hardoi	...	...	...	...	...	...	...	...	...	...	...	...	...
Etawah	2	...	1	...	...	...	...	...	3	2	2	2	12
Mainpuri	1	...	2	...	1	...	...	2	...	...	1	3	10
Etah	...	2	...	...	...	...	...	...	...	1	...	...	3
Fatehgarh Central	...	...	1	12	12	...	2	1	...	6	2	...	36
„ District	...	4	3	...	1	...	...	...	...	...	...	...	8
Group V.—Gangetic Plain and Chutia Nagpur	51	60	67	41	46	34	29	28	43	47	25	46	517
A													
Shahjahanpur	4	3	1	...	...	...	...	1	...	2	3	2	16
Bareilly Central	19	15	12	7	5	...	2	2	2	...	3	2	69
„ District	16	14	12	9	1	3	1	...	1	1	6	13	77
Budaon	6	3	3	2	...	...	...	...	...	...	1	...	15
Aligarh	...	...	...	...	3	...	...	...	...	...	1	...	4
Bulandshahr	...	...	...	1	1	...	1	...	...	...	...	2	5
Moradabad	2	1	2	2	2	1	2	2	3	1	5	4	27
Bijnor	2	...	5	1	...	...	...	...	...	1	1	...	10
Dehra Dun	...	...	...	...	...	...	...	...	...	...	...	...	...
Saharanpur	...	...	...	1	...	...	..	...	...	1	1	1	4
Muzaffarnagar	1	1	5	2	...	1	...	...	...	...	...	...	10
Meerut	1	...	1	1	...	...	...	...	...	...	6	1	10
Delhi	...	...	...	...	...	1	2	...	6	1	7	5	22
Rohtak	...	...	...	...	...	...	...	...	...	...	...	...	...
Hissar	1	...	...	1	...	...	...	...	...	...	...	...	2
Karnal	2	...	1	1	...	1	...	...	...	...	...	...	5
Umballa	...	...	...	...	...	...	1	...	1	3	...	...	5
B													
Ludhiana	1	1	2	...	...	...	...	...	...	...	...	1	5
Hoshiarpur	...	...	...	...	...	...	...	...	...	..	...	1	1
Jullundur	1	1	...	...	...	1	...	...	...	...	...	...	3
Ferozepore	1	...	...	...	...	...	...	...	...	...	2	...	3
Amritsar	...	...	...	...	...	...	1	...	...	...	...	...	1
Lahore Central	2	1	1	...	...	1	1	1	...	1	...	1	9
„ District	2	...	3	1	1	...	...	1	...	3	1	...	12
„ Female	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurdaspur	...	...	...	...	...	1	1	1	...	...	...	...	3
Gujranwala	...	...	...	...	1	...	...	...	...	...	1	...	2
Shahpur	3	3	1	...	...	...	...	...	...	...	...	...	7
Sialkot	...	1	...	1	...	...	2	...	...	...	...	...	4
Gujrat	1	...	...	...	...	...	...	...	...	...	...	...	1
Jhelum	1	...	...	...	...	...	...	...	...	...	...	...	1
Rawalpindi	1	2	1	...	...	...	1	1	2	...	7	16	31
Group VI.—Upper Sub-Himalayan	67	46	50	30	14	10	15	9	15	14	45	50	365

TABLE LII—*continued.*

DYSENTERY by months, jails, groups, and administrations.

Jails.	Admissions from Dysentery in each month.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A													
Chaibassa	3	9	19	9	15	17	16	21	16	8	12	12	157
Purulia	...	4	9	8	4	13	21	15	11	18	9	5	117
Ranchi	1	9	12	6	6	19	18	17	13	11	3	...	115
Palamau	...	...	1	...	...	...	...	1	1	...	...	...	3
Hazaribagh	8	5	4	4	8	11	30	31	9	4	5	6	125
B													
Gaya	7	11	5	2	5	2	23	16	14	9	8	8	110
Bhagalpur	...	...	...	...	2	2	10	20	12	9	4	3	62
Monghyr	2	6	4	...	3	1	3	6	7	11	2	...	45
Darbhanga	1	2	3	3	2	1	5	3	10	12	4	7	53
Champaran	4	8	14	19	6	11	20	41	13	7	15	3	161
Muzaffarpur	1	1	2	1	6	6	5	6	10	6	...	1	45
Patea	4	2	7	2	1	1	4	9	6	1	4	1	42
Arrah	...	...	2	...	...	2	4	2	1	1	1	1	14
Chapra	5	10	6	13	11	2	13	31	38	26	10	15	180
Buxar	...	...	2	3	1	1	6	4	3	3	4	3	30
Ghazipur	...	...	...	1	1	...	...	1	1	...	...	2	6
Azamgarh	1	1	6	3	2	1	7	5	7	7	1	5	46
Gorakhpur	8	12	9	16	12	17	24	19	7	7	4	4	139
Basti	2	1	2	1	2	2	2	15	2	1	3	6	39
Fyzabad	1	5	3	5	5	1	6	9	6	5	7	1	54
Sultanpur	1	2	3	...	3	1	3	3	4	5	1	2	28
Rai Bareli	...	2	1	1	1	1	4	5	...	1	...	...	16
Partabgarh	2	2	3	3	1	2	2	4	5	2	...	2	23
Jaunpur	...	3	1	...	...	1	9	30	12	4	1	1	62
Benares Central	10	3	1	5	8	5	11	18	28	40	31	39	199
„ District	2	3	7	4	5	2	8	15	9	8	7	...	70
Chuna	3	4	2	4	1	1	10	11	5	12	12	4	69
Mirzapur	1	7	7	2	2	1	9	14	8	18	12	5	86
Allahabad Central	4	6	5	2	3	1	6	8	11	7	2	4	59
„ District	5	2	4	3	2	...	6	9	13	19	8	7	78
Banda	7	3	15	5	3	6	...	13	17	11	5	1	86
Fatehpur	5	2	2	3	1	...	1	2	9	2	5	...	32
Hamirpur	...	1	2	6	7	8	16	11	32	30	5	124
Orai	1	3	2	...	2	1	4	15	20	16	17	3	84
Cawnpore	1	...	1	...	1	2	...	1	1	4	2	...	13
Unao	2	1	4	2	...	1	3	4	11	4	6	9	47
Lucknow Central	...	1	2	1	3	2	4	3	3	8	7	15	49
„ District	3	3	6	5	3	7	19	31	15	14	7	5	118
Barabanki	...	...	...	...	...	...	...	...	...	1	...	...	2
Gonda	1	...	3	3	17	4	6	10	10	4	4	1	63
Bahraich	4	3	8	6	11	13	14	11	7	8	6	12	103
Kheri	1	10	7	4	3	5	3	4	4	10	4	2	57
Sitapur	...	...	1	7	2	2	...	6	1	5	1	5	30
Hardoi	...	...	...	3	3	4	4	9	2	...	4	1	30
Etawah	2	4	1	...	1	...	...	2	1	1	2	1	15
Mainpuri	1	...	...	...	...	...	...	2	2	2	5	11	23
Etah	...	...	1	1	...	...	...	...	1	1	...	2	6
Fatehgarh Central	7	5	17	16	18	7	44	111	66	74	46	30	441
„ District	4	7	8	10	3	8	14	16	18	23	4	4	119
Group V.—Gangetic Plain and Chutia Nagpur	115	163	224	192	195	195	409	645	481	482	325	254	3,680
A													
Shahjahanpur	1	...	...	...	1	...	1	8	3	6	8	3	31
Bareilly Central	2	...	4	1	1	5	1	4	1	3	14	9	45
„ District	1	...	2	...	1	...	2	4	12	5	5	2	34
Budaon	...	...	...	...	4	...	...	...	2	3	1	6	19
Aligarh	...	...	...	2	3	...	...	5	2	9	5	4	33
Bulandshahr	2	1	...	...	...	...	...	3	...	2	2	...	10
Moradabad	1	...	1	...	1	4	5	12	17	13	20	3	77
Bijnor	...	1	1	1	1	1	...	2	3	2	...	...	12
Dehra Dun	...	...	...	...	...	1	2	1	...	1	2	...	8
Saharanpur	2	...	...	...	3	3	2	7	3	3	3	2	28
Muzaffarnagar	1	2	1	...	1	...	2	...	5	8	6	5	31
Meerut	...	...	2	...	1	...	1	11	17	33	51	27	143
Delhi	...	...	...	...	...	...	...	3	2	7	4	4	20
Rohtak	...	...	...	...	2	...	5	1	...	...	...	...	11
Hissar	...	1	...	...	2	...	...	...	2	...	...	...	5
Karnal	...	...	...	1	...	...	1	...	2	2	...	1	6
Umballa	2	2	5	8	5	2	10	10	3	10	8	9	74
B													
Ludhiana	...	...	...	1	...	...	...	2	1	4	2	3	13
Hoshiarpur	...	...	...	...	...	...	...	1	1	...	...	...	2
Jullundur	1	1	3	2	1	...	...	2	4	1	1	1	17
Ferozepore	...	...	...	...	...	...	...	2	6	...	1	1	10
Amritsar	...	...	...	...	...	...	...	...	1	1	...	...	2
Lahore Central	8	5	8	12	3	7	9	3	11	30	69	45	210
„ District	6	4	2	1	1	3	3	2	3	11	26	43	105
„ Female	...	1	...	2	4	...	1	2	4	2	7	8	31
Gurdaspur	1	...	...	...	...	1	1	1	...	...	...	...	4
Gujranwala	1	2	2	1	...	...	...	...	2	3	1	1	13
Shahpur	1	...	...	2	3	...	...	...	...	...	...	...	5
Sialkot	1	...	...	2	...	...	...	1	...	3	...	1	8
Gujrat	1	...	1	...	...	...	1	...	2	4	...	...	9
Jhelum	2	...	...	1	1	1	...	1	1	2	5	2	16
Rawalpindi	8	5	7	13	4	13	6	4	9	7	11	20	107
Group VI.—Upper Sub-Himalayan	42	30	42	51	46	42	48	94	119	173	252	200	1,139

Jails.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December	Total.
A																									
Peshawar	...	1	...	...	...	...	...	...	1	1	...	1	4	1	3	...	5	4	9	4	3	4	7	5	3	48
Kohat	2	...	...	...	...	...	...	...	...	1	...	1	4	1	...	...	...	...	...	...	...	1	...	2	...	4
Bannu	...	1	...	...	...	...	...	...	...	1	...	1	3	2	1	2	...	...	...	...	1	2	6	4	6	24
Shahpur	...	3	2	1	...	...	3	1	...	...	...	...	10	1	...	1	...	1	...	1	...	...	2	3	1	10
Jhang	1	...	...	1	...	...	...	...	...	...	...	...	2	2	2	...	3	9	2	1	2	9	4	8	10	52
Montgomery	1	3	3	1	...	1	...	...	...	...	2	4	15	1	1	12	10	20	1	...	3	12	10	16	14	100
Mooltan Central	4	1	...	...	2	1	...	..	...	2	2	8	20	2	1	...	2	3	2	3	2	9	12	25	18	79
,, District	2	3	4	...	...	...	2	...	...	...	1	0	18	1	...	...	4	1	...	...	1	...	5	1	1	14
Dera Ismail Khan	...	...	...	...	...	1	...	...	...	...	1	3	5	...	...	...	...	...	...	...	2	2	1	2	2	9
Dera Ghazi Khan	2	...	...	1	...	...	1	...	...	...	1	6	11	...	...	...	1	1	1	...	1	...	2	...	4	10
C																										
Shikarpur	13	10	2	2	...	...	...	1	2	2	...	7	39	...	...	...	...	2	...	1	...	...	2	4	1	10
Sind Gang	13	13	16	...	...	...	...	...	...	...	...	13	55	3	...	...	...	...	...	...	...	...	...	1	...	4
Hyderabad	8	2	...	1	...	...	...	...	...	...	...	...	11	...	1	1	...	...	...	...	...	...	3	...	...	5
Kurrachee	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1	2	2	2	1	...	2	12
Group VII.—N.-W. Frontier, Indus Valley, and North-Western Rajputana	47	37	27	7	2	3	6	2	3	7	7	50	198	14	9	17	25	42	16	12	17	41	55	71	62	381
A																										
Rajkot	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	2	3
Ahmedabad	2	2	13	6	1	6	2	1	...	1	7	2	43	3	8	6	4	7	7	9	17	23	17	9	15	125
B																										
Ajmere	1	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	3	...	2	2	7
Muttra	...	...	...	...	...	2	...	...	...	1	2	1	6	...	...	...	2	1	...	1	2	3	5	9	4	27
Agra Central	2	3	2	1	8	2	4	3	3	3	3	3	37	3	...	7	8	2	5	10	17	25	36	18	17	148
,, District	1	...	4	8	...	...	...	1	...	...	2	5	21	1	2	2	2	2	2	1	3	6	3	8	2	34
Jhansi	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	2	2	...	12	6	2	6	3	33
Group VIII.—South Eastern Rajputana, Central India, and Gujarat	10	5	19	15	9	10	7	5	3	5	14	11	113	7	10	15	16	14	16	21	51	67	63	52	45	377
A																										
Damoh	...	2	...	...	...	...	...	...	...	...	...	...	2	13	11	28	24	11	10	20	15	11	10	10	5	168
Saugor	1	4	7	2	1	...	1	...	3	...	...	...	19	...	1	1	12	19	14	21	16	35	15	6	1	141
Jubbulpore	3	5	5	1	6	4	...	...	1	...	2	3	30	13	27	12	15	16	22	26	41	63	52	43	43	373
Narsinghpur	1	1	1	1	...	...	...	...	...	...	...	1	5	3	10	4	1	3	...	4	8	11	8	1	1	60
Mandla	...	2	2	...	...	...	4	3	...	...	...	...	11	...	...	1	1	3	6	8	26	18	8	3	1	75
Bilaspur	...	...	...	...	...	...	...	...	6	...	1	2	9	2	6	5	9	24	31	47	67	14	2	8	3	218
Sambalpur	1	1	...	...	1	...	...	1	1	...	...	...	5	1	...	...	...	1	2	2	6	12	5	4	5	38
Raipur	...	...	...	1	...	...	1	...	2	1	4	2	11	2	4	...	2	2	6	16	15	12	20	16	4	99
Balaghat	1	2	4	2	...	...	...	1	...	...	...	...	10	7	7	...	...	1	1	2	1	4	...	...	...	23
Seoni	2	1	...	...	...	1	2	...	1	2	1	1	11	5	10	8	6	7	13	21	38	33	20	4	...	171
Chhindwara	3	...	...	...	2	...	...	1	...	1	2	1	10	...	...	...	...	...	...	...	...	1	...	...	...	1
Hoshangabad	...	1	...	...	1	...	...	...	2	1	...	2	7	...	7	1	...	...	...	8	6	5	9	5	1	42
Nimar	...	1	...	...	...	...	...	...	...	...	...	...	1	2	...	1	1	...	...	1	5	3	3	2	1	19
Betul	...	...	1	1	...	...	...	1	...	...	...	2	5	...	1	1	...	4	7	31	35	19	9	1	5	113
Nagpur	...	...	...	...	1	1	1	...	1	...	...	...	4	...	...	3	7	4	9	16	16	16	7	7	5	90
Bhandara	...	...	...	...	...	...	...	...	...	1	...	1	2	...	...	...	1	2	2	5	5	4	4	1	...	24
Wardha	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	6	2	6	4	1	20
Chanda	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	2	...	...	...	3
B																										
Secunderabad	...	...	...	1	...	...	...	...	...	...	1	...	2	1	...	1	1	...	...	...	1	1	1	...	...	6
Yeotmahl	...	...	...	...	...	...	...	...	1	...	...	...	1	..	...	2	...	1	...	2	1	1	...	...	...	7
Amraoti	2	1	2	2	...	...	...	...	1	4	3	2	17	...	...	...	...	1	2	...	2	2	2	1	...	10
Ellichpur	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	2
Akola	...	...	1	...	...	...	...	...	...	...	5	1	7	...	...	1	2	...	...	3	3	1	5	3	2	20
Bassim	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	2	...	1	2	8
Baldana	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2
Dhulia	...	...	...	1	1	...	...	...	...	1	1	1	5	...	...	1	3	1	2	7	11	16	9	2	...	52
Nasik	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	...	...	1	6	1	2	1	...	2	14
Yerrowda	...	1	1	1	...	1	...	...	1	1	...	1	7	1	1	1	2	5	4	9	5	7	4	7	1	47
Bijapur District	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...	...	1	2	...	1	...	1	10
Deccan Gang	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	3	...	1	9	9	6	2	1	...	33
Dharwar	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	...	1	1	1	6	2	...	3	...	...	16
Group IX.—Deccan	16	23	24	14	13	7	10	8	21	12	20	20	188	57	93	74	92	108	135	273	343	303	213	130	84	1,905
Thana	1	...	2	...	...	...	1	...	...	...	...	2	6	5	6	7	6	5	2	8	31	21	8	6	4	109
Bombay Common	...	...	...	...	...	...	...	...	...	1	...	1	2	2	...	1	3	1	...	4	...	...	...	...	...	11
,, House of Correction	...	...	...	...	1	2	...	1	...	...	...	...	4	2	9	2	...	2	3	5	3	...	...	...	...	26
Ratnagiri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	4
Karwar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	3	3	...	2	...	11
Mangalore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	5	1	...	1	11
Cannanore	...	...	...	1	...	1	...	3	...	...	...	...	5	...	1	1	...	2	10	...	1	...	3	...	...	18
Group X.—Western Coast	1	...	2	1	1	3	1	4	...	1	...	3	17	9	16	11	9	11	16	20	40	29	14	9	6	190

TABLE LI—*concluded.*

PNEUMONIA by months, jails, groups, and administrations.

TABLE LII—*concluded.*

DYSENTERY by months, jails, groups, and administrations.

Jails and Administrations.	Admissions from Pneumonia in each month.													Admissions from Dysentery in each month.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
A																									
Bellary	...	...	...	...	...	...	...	...	...	...	1	...	1	5	2	1	...	1	3	4	4	3	3	3	3	32
Salem	...	...	...	...	...	..	...	...	1	1	1	1	4	8	1	..	1	...	1	1	2	2	1	5	4	26
Coimbatore	...	...	...	...	...	1	...	1	2	...	...	...	4	3	...	...	10	27	13	10	7	3	2	7	2	84
B																										
Palamcottah	...	1	...	...	1	...	...	...	...	...	...	...	2	1	...	1	...	1	...	1	...	2	...	2	7	15
Madura	...	1	...	1	...	...	...	...	...	...	...	...	2	4	4	1	4	...	...	...	...	2	6	4	1	26
Trichinopoly	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	4	1	3	2	5	1	20
Tanjore	...	...	1	...	...	...	...	...	...	1	1	...	3	...	1	1	2	1	2	...	1	2	2	2	1	15
Cuddalore	...	...	...	...	...	...	...	...	...	...	...	...	...	9	1	2	...	...	...	...	...	1	2	7	2	24
Vellore	1	1	1	2	...	...	...	1	...	...	1	2	9	9	7	19	11	8	31	3	4	4	9	4	7	110
Madras Debtors', natives	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Madras Penitentiary, natives	...	2	...	...	1	1	...	1	...	1	...	...	6	1	...	1	...	...	2	1	5	1	3	2	3	19
Madras Penitentiary, Europeans	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Nellore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	3
C																										
Rajamundry	1	2	...	1	1	1	...	...	1	2	7	2	18	9	2	57	21	3	4	4	4	40	22	6	29	201
Vizagapatam	1	...	3	1	...	...	...	2	2	3	1	...	13	...	...	1	...	1	2	3	1	9	1	...	2	20
Berhampur	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	2	4	7	3	4	4	1	3	29
Group XI.—Southern India	3	7	5	5	3	3	...	5	6	8	13	6	64	51	19	84	51	45	63	38	32	76	58	49	65	631
Shillong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	4	4	...	...	...	10
Darjeeling	1	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	...	...	2	6	1	...	...	1	...	11
Almora	2	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	1	1	...	...	1	4
Dharmsala	...	...	4	1	...	...	...	1	...	...	1	1	8	...	...	1	...	4	...	5	...	1	6	4	2	23
Abbottabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	4
Quetta	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	...	4
Mercara	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	1	2	2	...	...	...	...	...	...	5
Russellkonda	...	...	...	...	1	...	...	...	...	...	...	...	1	1	1	1	3	2	1	3	...	1	1	1	...	15
Group XII.—Hills	3	...	4	1	2	...	...	1	...	...	1	1	13	2	2	2	5	10	6	15	7	7	10	7	3	76
Extra India:—Aden	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	1	...	...	...	1	...	...	1	3
INDIA*	246	216	228	141	110	95	90	90	118	122	163	223	1,842	595	628	846	864	851	984	1,429	1,741	1,566	1,513	1,331	1,122	13,470
Andamans	4	3	1	1	1	4	3	8	3	4	4	1	37	58	56	42	66	70	131	147	107	64	69	64	78	952
Burma	8	6	6	7	10	12	8	7	8	6	11	14	103	43	36	42	52	57	100	110	68	60	72	77	69	786
Assam	2	1	...	1	...	...	1	1	1	...	1	...	8	8	5	12	31	37	16	50	33	39	23	17	8	279
Bengal	42	33	30	23	13	12	12	14	21	27	23	30	280	226	250	371	344	287	339	470	532	447	407	360	312	4,351
N. W. Provinces and Oudh	103	95	107	71	63	40	37	35	46	48	58	71	774	93	108	155	139	149	129	259	514	423	490	402	277	3,138
Punjab	28	21	22	9	4	8	15	6	10	13	26	56	218	43	29	46	71	72	44	47	53	94	141	205	200	1,045
Bombay	39	28	34	11	3	9	4	4	3	6	8	27	176	21	27	22	23	27	22	69	86	82	53	33	30	495
Berar and Secunderabad	4	2	3	3	...	...	...	..	2	4	9	3	30	3	...	5	3	4	2	6	7	7	9	5	4	55
Central Provinces	12	20	20	9	12	6	9	7	18	6	10	15	144	48	90	65	79	97	124	229	306	265	184	115	76	1,678
Madras	3	7	5	6	4	4	...	8	6	8	13	6	70	52	21	86	54	49	75	42	35	82	63	50	66	675
Non-British Jails—																										
Kolhapur	...	...	...	...	1	2	1	1	...	...	...	...	5	...	2	1	2	2	3	4	4	...	1	...	...	19
Savantvadi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	1	1	...	...	...	...	7

* Including Ajmere, Quetta, and Mercara.

IV.—TROOPS AND PRISONERS, 1897.

TABLE LIII.

DETAIL of DISEASES.

Diseases.	European Army of India. Men . . . 64,531				Women 3,203		Children 5,744		Native Army of India. Present . 118,486 Enrolled . 134,118			Jail Population of India. 118,107.	
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Small-pox	24	2·70	4	...	11	1	5	1	54	6	...	124	14
Cow-pox	2	·06	...	...	1	...	...	...	31	...	...	16	...
Chicken-pox	5	·37	...	...	...	...	76	...	252	...	...	349	...
Measles	21	1·23	...	...	3	...	172	7	179	2	...	43	...
Rubella	16	1·24	...	...	...	...	22	...	33	...	...	8	...
Scarlet fever	27	3·27	...	...	3	...	4	...	...	...	...	...	...
Typhus	...	...	...	...	...	...	...	...	...	...	...	2	...
Plague	5	·40	...	...	1	...	1	1	127*	82	...	37	20
Dengue	3	·32	...	...	...	...	...	...	...	...	...	...	...
Influenza	272	9·83	1	...	10	...	23	...	727	5	...	987	25
Whooping cough	...	...	...	...	...	...	14	1	...	...	...	...	...
Mumps	7	·46	...	...	8	...	45	...	671	...	...	2,264	1
Diphtheria	5	·53	1	...	...	...	1	1	1	...	...	...	...
Cerebro-spinal fever	1	·35	...	...	...	...	...	...	...	...	...	13	10
Simple continued fever	2,749	125·71	1	8	50	...	124	5	1,209	4	...	2,899	4
Enteric fever	2,050	296·85	356	42	23	3	36	2	47	15	...	34	15
Cholera	116	2·49	80	...	2	2	13	5	107	68	...	959	465
Epidemic diarrhœa	...	...	...	...	...	...	...	...	2	...	...	153	11
Dysentery	2,215	166·89	82	80	70	3	91	14	5,611	49	17	13,470	1,307
Beri-Beri	...	...	...	...	...	...	...	...	137	20	5	60	3
Ague	22,310	824·20	17	144	323	1	613	13	38,909	58	109	44,110	126
Remittent fever	1,186	91·88	27	21	32	3	76	7	1,929	119	1	1,083	127
Sloughing phagedæna	6	·80	...	1	...	...	...	...	1	...	...	1	1
Hospital gangrene	...	...	...	...	...	...	...	...	...	...	...	2	...
Erysipelas	92	6·72	4	...	5	...	2	...	34	5	...	164	18
,, phlegmonous	20	1·59	2	...	...	...	...	...	...	...	...	...	...
Pyæmia	1	·14	...	...	...	...	...	...	1	1	...	3	2
,, puerperal	...	...	...	...	2	...	...	...	...	...	...	...	...
Septicæmia	3	·03	3	...	4	3	...	...	1	1	...	3	3
,, puerperal	...	...	...	...	...	...	...	...	...	...	...	2	2
Tetanus	...	...	...	...	...	...	...	...	2	1	...	5	3
Tubercle not defined	1	·38	...	1	...	...	...	...	...	...	...	...	...
,, of brain	...	...	...	...	...	...	4	3	1	1	...	1	1
,, of larynx	...	...	...	...	...	...	...	...	1	...	...	...	...
,, of lungs	282	52·52	37	133	22	4	2	2	324	101	38	809	348
,, of intestines	3	·28	2	1	...	...	3	2	...	...	...	13	5
,, of lungs and intestines	...	...	...	...	...	...	...	...	...	...	...	9	1
,, of liver	...	...	...	...	...	...	...	...	...	...	...	1	1
,, of peritonæum	2	·39	1	...	...	...	...	...	...	...	...	2	2
,, of lymph-glands	32	3·79	...	10	...	...	5	6	12	2	4	47	10
,, of testicles	3	·35	...	2	...	...	...	...	...	...	...	...	...
,, of bones	2	·25	...	1	...	...	...	...	...	...	...	...	...
,, of joints	5	1·22	...	5	...	...	1	...	2	...	2	2	...
Leprosy	...	...	...	...	...	...	...	...	10	...	8	236	43
Primary syphilis	8,108	781·79	1	4	3	...	...	...	1,451	1	7	695	...
Secondary ,,	6,853	751·74	22	611	...	...	...	...	1,139	7	94	1,446	13
Inherited ,,	...	...	...	...	...	...	7	2	...	...	...	...	...
Gonorrhœa	12,307	1,009·84	...	45	...	...	...	...	1,920	3	3	568	1
Hydrophobia	2	·01	2	...	...	...	1	1	...	...	...	1	1
Anthrax	...	...	...	...	...	...	...	...	...	...	...	1	1
Bothriocephalus latus	...	...	...	...	...	...	...	...	...	...	...	6	...
Tænia solium	153	3·99	...	...	6	...	9	...	16	...	...	61	...
,, mediocanellata	9	·10	...	...	...	...	...	...	...	...	...	3	...
Echinococcus hominis	...	...	...	...	...	...	...	...	1	...	...	...	...
Ascaris lumbricoides	2	·03	...	...	...	...	10	...	32	...	...	148	1
Ascaris Mystax	...	...	...	...	...	...	...	...	...	...	...	1	...
Trichocephalus dispar	...	...	...	...	...	...	...	...	9	...	...	1	...
Guinea-worm	...	...	...	...	...	...	...	...	563	1	3	438	...
Filaria sanguinis hominis	...	...	...	...	...	...	...	...	2	...	...	1	...
Dochmius duodenalis	...	...	...	...	...	...	...	...	...	...	...	230	13
Thread-worm	...	...	...	...	...	...	2	...	1	...	...	10	...
Œstrus hominis	...	...	...	...	...	...	...	...	1	...	...	...	...
Musca Cæsar	...	...	...	...	...	...	...	...	...	...	...	1	...
Phthirius inguinalis	5	·09	...	...	...	...	...	...	...	...	...	...	...
Reduvius serratus	...	...	...	...	...	...	...	...	1	...	...	...	...
Culex anxifer	5	·03	...	...	...	...	1	...	4	...	...	...	...
Culex pipiens	...	...	...	...	...	...	...	...	2	...	...	...	...
Scabies	156	5·25	...	...	...	...	2	...	1,654	...	...	1,113	...
Vegetable parasite, not defined	...	...	...	...	...	...	...	...	...	...	...	1	...
Mycetoma	...	...	...	...	...	...	...	...	1	...	...	1	...
Favus	1	·05	...	...	...	...	...	...	1	...	...	43	...
Ringworm	373	14·67	...	...	...	...	4	...	306	...	2	302	...
Tinea versicolor	3	·08	...	...	...	...	...	...	14	...	...	...	...
Oidium albicans	...	...	...	...	...	...	6	...	...	...	...	9	...
Surfeit	...	...	...	...	...	...	...	...	2	2	...	13	...
Scurvy	23	1·61	...	...	...	...	1	1	312	1	15	310	13
Alcoholism	328	13·61	1	4	...	...	...	...	13	2	...	2	1
Delirium tremens	8	·30	1	...	1	...	...	...	1	...	...	...	...
Rheumatic fever	137	17·93	1	12	4	...	1	...	41	2	...	49	1
Rheumatism	1,767	126·81	...	64	33	...	2	...	2,368	4	227	1,282	11
Gout	13	·76	...	1	...	...	...	...	4	...	...	1	...
Osteoarthritis	3	·40	...	1	...	...	...	...	4	...	1	2	...
Cyst	17	·85	1	...	2	...	1	...	19	...	1	9	1
Non-malignant new growths, not defined	...	...	...	...	...	...	...	...	28	...	1	15	...
Pterygium	1	·02	...	...	...	...	...	...	14	...	1	8	...
Lipoma	5	·26	...	...	...	...	1	...	1	...	...	5	...
Fibroma	9	·84	...	1	1	...	...	...	10	...	...	6	1
Chondroma	...	...	...	...	...	...	...	...	...	...	...	1	...
Osteoma	2	·20	...	...	...	...	...	...	...	...	...	...	...
Myxoma	3	·33	...	...	...	...	...	...	...	...	...	...	...
Glioma	2	·11	...	...	...	...	...	...	...	...	...	1	1
Myoma	...	...	...	...	...	...	...	...	1	...	...	1	...
Neuroma	...	...	...	...	...	...	...	...	2	...	...	...	...
Lymphadenoma	...	...	...	...	...	...	...	...	...	1	...	...	...
Papilloma	11	·75	...	...	...	...	...	...	1	...	...	3	...
Warts	179	12·63	...	...	...	...	...	...	3	...	...	1	...
Condyloma	...	...	...	...	...	...	...	...	1	...	...	8	...
Adenoma	3	·52	...	...	...	...	...	...	...	...	...	1	...
Malignant new growths, not defined	...	...	...	...	...	...	...	...	...	...	...	4	1
Sarcoma	...	...	...	...	...	...	...	...	2	1	1	5	3
Glio-sarcoma	...	...	...	...	...	...	...	...	...	...	...	1	1
Carcinoma	2	·13	2	...	...	...	...	...	...	...	...	23	15
Glandular Carcinoma	2	·36	2	...	...	...	...	...	...	...	...	...	...
Scirrhus	...	...	...	...	...	...	...	...	...	...	...	1	1

* 131 in the weekly returns.

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Epithelioma	...	...	1	...	1	1	...	...	...	...	...	4	2
Rickets	...	...	...	...	...	...	4	...	...	...	...	...	...
Myxœdema	...	...	...	...	...	...	...	...	1	...	...	...	...
Anæmia	114	8·33	...	11	45	1	30	...	390	6	28	1,208	54
Idiopathic anæmia	1	·36	...	...	...	...	...	...	2	2	...	4	...
Purpura	...	...	...	...	...	...	1	...	1	...	...	1	...
Leucocythæmia	...	...	...	...	...	...	...	...	1	1	...	...	...
Hodgkin's disease	1	·37	...	...	...	...	...	...	...	...	...	4	...
Hæmophilia	...	...	...	...	1	...	...	...	1	...	...	...	...
Diabetes mellitus	6	·71	2	2	...	...	...	...	10	1	1	15	5
,, insipidus	1	·83	...	3	1	...	1	...	2	...	...	7	1
Immaturity at birth	...	...	...	...	1	...	25	23	...	...	...	...	...
Fissure of skull	...	...	...	...	...	...	2	...	...	...	...	...	...
Harelip	...	...	...	...	...	...	...	...	...	...	...	3	...
Septa of the heart incomplete	...	...	...	...	...	...	1	1	...	...	...	...	...
Congenital phimosis	4	·56	...	...	...	...	2	...	2	...	...	...	...
Testicle diminutive	1	·30	...	1	...	...	...	...	...	...	...	...	...
Malformation of testicle	1	·02	...	...	...	...	...	...	...	...	...	...	...
Debility	1,194	87·67	1	179	805	...	256	15	1,529	7	536	3,229	200
Old age	...	...	...	...	...	...	...	...	1	...	...	160	24
Neuritis	5	·59	...	2	...	...	...	...	13	...	1	1	...
Multiple neuritis	2	·47	...	...	1	...	...	...	11	...	...	...	...
Spinal meningitis	...	...	...	...	...	...	...	...	...	...	...	1	...
Leptomeningitis (83—6)	...	...	...	...	...	...	...	...	1	1	...	...	...
Myelitis	3	·15	1	1	...	...	...	...	4	4	1	2	2
Anterior poliomyelitis	...	...	...	...	...	...	1	...	...	...	...	...	...
Progressive muscular atrophy	...	...	...	...	...	...	...	...	...	...	...	2	1
Degeneration of lateral columns of spinal cord	2	·55	...	1	...	...	...	...	3	...	1	8	...
Posterior sclerosis	1	·15	1	1	...	...	...	...	8	...	3	6	...
Postero-lateral sclerosis	1	·17	...	2	...	...	...	...	...	...	...	...	...
Disseminated sclerosis	3	·76	...	2	...	...	...	...	1	...	...	...	...
Acute ascending paralysis	1	·05	1	...	...	...	...	...	1	...	...	...	...
Cerebral meningitis	5	·30	3	1	2	2	6	5	6	6	...	21	20
Pachymeningitis	11	·63	7	2	1	1	...	...	2	...	...	...	...
Encephalitis	2	·05	3	...	...	...	...	...	...	...	...	...	...
Abscess of the brain	4	·17	4	...	...	...	...	...	...	...	...	3	3
Sclerosis of the ,,	1	·04	...	1	...	...	...	...	...	...	...	...	...
Softening of the ,,	...	...	...	...	...	...	...	...	...	...	...	2	1
Hæmorrhage into the brain	2	·01	2	...	...	...	...	...	3	3	...	5	5
Congestion of the brain	5	·21	...	1	...	...	...	...	2	2	...	5	5
Anæmia of the ,,	1	·02	...	...	...	...	...	...	...	...	...	...	...
Bulbar paralysis	...	...	...	...	...	...	...	...	1	...	...	...	...
Internal hydrocephalus	...	...	...	...	...	...	3	3	...	...	...	...	...
Apoplexy	1	·43	1	1	1	1	...	...	5	4	...	19	20
Paralysis	...	...	...	...	...	...	...	...	6	...	...	6	...
Paraplegia	2	·22	1	1	...	...	...	...	6	2	1	21	1
Hemiplegia	13	1·87	2	6	1	...	...	...	23	...	3	29	...
Monoplegia	1	·07	...	...	...	...	...	...	...	...	...	...	...
Local paralysis	14	1·94	...	3	...	...	...	...	25	1	4	7	1
Incomplete paralysis	3	·24	...	...	...	...	...	...	6	...	...	1	...
Paralysis agitans	...	...	...	...	...	...	...	...	...	...	...	2	...
Chorea	3	·25	...	...	1	...	1	...	2	...	...	3	...
Cramp, clonic	1	·02	...	...	...	...	...	...	...	...	...	...	...
Wry-neck	...	...	...	...	...	...	...	...	2	...	...	2	...
,, spasmodic	3	·17	...	1	...	...	...	...	9	...	...	1	...
Facial spasm	...	...	...	...	...	...	...	...	...	...	...	1	...
Convulsions	...	...	...	...	...	...	...	...	1	...	...	1	...
Infantile convulsions	...	...	...	...	...	...	31	25	...	...	...	...	...
Epilepsy	53	6·36	...	27	7	...	3	...	56	2	14	177	12
Laryngismus stridulus	...	...	...	...	...	...	4	...	...	...	...	...	...
Vertigo	13	·69	...	...	...	...	...	...	9	...	...	12	...
Headache	37	1·51	...	1	...	...	...	...	38	...	1	...	...
Megrim	3	·15	...	...	...	...	...	...	19	...	...	58	...
Anæsthesia	...	...	...	...	...	...	...	...	5	...	...	...	...
Neuralgia	223	10·38	...	6	15	...	1	...	263	...	8	149	...
Facial hemiatrophy	1	·05	...	...	...	...	...	...	...	...	...	...	...
Hysteria	6	·90	...	1	23	...	...	...	1	...	...	7	...
Aphasia	...	...	...	...	...	...	...	...	...	...	1	...	...
Hiccough	...	...	...	...	...	...	...	...	2	...	...	2	...
Nervous weakness	2	·18	...	...	...	...	...	...	7	...	5	...	...
Idiocy	1	·34	...	1	...	...	...	...	3	...	1	1	...
Mania	13	3·07	...	11	1	...	...	...	19	1	3	44	1
,, puerperal	...	...	...	...	1	...	...	...	...	...	...	...	...
Melancholia	49	11·38	...	48	...	..	...	...	7	...	2	10	...
Dementia	35	9·57	1	27	1	...	...	...	13	...	2	20	1
Mental stupor	6	1·42	...	2	...	...	...	...	5	...	...	...	...
General paralysis of the insane	...	...	...	...	...	...	...	...	1	...	...	...	...
Delusional insanity	7	2·36	...	6	...	...	...	...	3	...	...	1	...
Conjunctivitis	7	·21	...	...	1	...	4	...	723	...	4	2,000	...
,, catarrhal	495	27·22	...	2	32	...	222	...	1,581	...	4	...	...
,, purulent	5	·93	...	...	2	...	15	...	3	...	...	...	...
,, granular	4	·49	...	...	1	...	3	...	48	...	3	58	...
Ecchymosis	...	...	...	...	...	...	...	...	2	...	...	3	...
Œdema of the conjunctiva	1	·02	...	...	...	...	...	...	...	...	...	...	...
Chemosis	...	...	...	...	...	...	...	...	...	...	...	1	...
Chronic hyperæmia ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Keratitis	11	1·45	...	...	1	...	...	...	50	...	1	72	...
Ulcerative keratitis	44	3·07	...	...	2	...	2	...	151	...	6	222	1
Gangrene of the cornea	...	...	...	...	...	...	...	...	...	...	...	2	...
Opacity ,,	2	·24	...	1	...	...	...	...	16	...	7	9	...
Staphyloma	2	·20	...	1	...	...	...	...	2	...	1	5	...
Scleritis	1	·22	...	...	...	...	...	...	3	...	...	...	...
Staphyloma of the sclerotic	...	·15	...	1	...	...	...	...	...	...	...	...	...
Iritis	35	4·06	...	3	2	...	...	...	58	...	1	40	...
Synechia posterior	1	·04	...	2	...	...	...	...	4	...	...	...	...
,, anterior	1	·03	...	...	...	...	...	...	...	...	...	...	...
Mydriasis	...	·06	...	...	...	...	...	...	3	...	...	...	...
Choroiditis	3	·27	...	2	...	...	...	...	...	...	...	...	...
Congestion of the choroid	...	...	...	...	...	...	...	...	1	...	...	...	...
Glaucoma	1	·03	...	...	...	...	...	...	2	...	...	5	...
Optic neuritis	3	·51	...	3	...	...	...	...	3	...	2	...	...
Congestion of optic disc	1	·18	...	...	...	...	...	...	1	...	...	...	...
Atrophy and degeneration of optic nerve	...	...	...	...	...	...	...	...	1	...	...	...	...

TABLE LIII—*continued.*

DETAIL of DISEASES.

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Retinitis	9	1·72	...	2	...	...	...	...	...	...	...	...	...
Degeneration and atrophy of retina	1	·02	...	1	...	...	...	...	1	...	...	...	...
Detachment of the retina	1	·11	...	...	...	...	...	...	...	...	...	...	...
Lenticular cataract	1	·05	...	1	...	...	...	...	16	...	9	20	...
Capsular ,,	1	·04	...	...	...	...	...	...	...	...	...	...	...
Dislocation of lens	1	·02	...	1	...	...	...	...	...	...	...	...	...
Panophthalmitis	...	...	...	...	...	...	...	...	2	...	...	5	...
Amblyopia and amaurosis	8	·73	...	...	...	...	...	...	10	...	3	2	...
Functional night-blindness	...	...	...	...	...	...	...	...	15	...	5	4	...
Day-blindness	1	·05	...	...	...	...	...	...	...	...	...	...	...
Neuralgia of eyeball	1	·03	...	...	...	...	...	...	1	...	...	...	...
Ametropia	...	...	...	...	...	...	...	...	4	...	1	...	...
Myopia	15	1·18	...	5	...	...	...	...	2	...	4	...	...
Hypermetropia	14	1·00	...	2	...	...	...	...	1	...	...	...	...
Astigmatism	1	·04	...	...	...	...	...	...	1	...	1	...	...
Presbyopia	...	...	...	...	...	...	...	...	...	...	1	...	...
Asthenopia	...	·03	...	1	...	...	...	...	1	...	...	...	...
Diplopia	...	...	...	...	...	...	...	...	...	...	1	...	...
Squint	4	·31	...	...	...	...	...	...	...	...	1	...	...
Inflammation of lacrymal gland	1	·04	...	...	...	...	...	...	...	...	...	4	...
Stricture and obliteration of puncta and canaliculi	2	·06	...	...	...	...	...	...	1	...	...	1	...
Chronic dacryo-cystitis	...	...	...	...	...	...	...	...	2	...	1	...	...
Abscess of lacrymal sac	4	·13	...	...	...	...	...	...	3	...	...	2	...
Fistula of ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Blepharitis marginalis	21	1·63	...	2	...	...	...	...	6	...	...	12	...
Stye	22	·38	...	...	...	...	...	...	80	...	...	23	...
Abscess of the eyelids	...	...	...	...	...	...	...	...	2	...	...	1	...
Trichiasis	1	·02	...	...	...	...	...	...	1	...	...	7	...
Entropion	1	·12	...	...	...	...	...	...	2	...	...	13	...
Œdema of eyelids	...	...	...	...	...	...	...	...	1	...	...	...	...
Ptosis	...	...	...	...	...	...	...	...	1	...	...	...	...
Inflammation of the external ear	723	35·16	...	5	5	...	14	...	363	...	1	357	...
Abscess of ,, ,,	11	·68	...	...	...	...	...	...	24	...	...	7	...
Hæmatoma of the auricle	...	...	...	...	...	...	...	...	...	...	...	2	...
Accumulation in the external meatus of wax or epidermis	4	·09	...	...	...	...	...	...	2	...	...	...	...
Inflammation of the middle ear	68	5·59	...	11	...	...	...	...	27	...	...	49	...
,, ,, ,, suppurative	12	1·23	...	...	1	1	...	...	3	3	...	...	...
Ulceration of membrana tympani	1	·02	...	...	...	...	...	...	1	...	...	...	...
Perforation of ,, ,,	97	9·70	...	38	...	...	...	...	6	...	...	1	...
Deafness	25	2·93	...	15	...	...	...	...	27	...	15	1	...
Rhinitis	3	·20	...	...	...	...	...	...	5	...	...	2	...
Coryza	3	·08	...	...	...	...	...	...	4	...	...	42	...
Ozæna	...	...	...	...	...	...	...	...	2	...	...	28	1
Abscess of the nose	...	...	...	...	...	...	...	...	1	...	...	1	...
Inflammation of frame work of nose	1	·02	...	...	...	...	...	...	...	...	...	...	...
Diseases of the septum nasi	1	·01	...	...	...	...	...	...	...	...	...	...	...
Epistaxis	11	·66	...	...	...	...	...	...	12	...	...	34	...
Empyema of accessory sinuses of nose	...	...	...	...	...	...	...	...	...	...	...	5	...
Inflammation of naso-pharynx	...	...	...	...	...	...	...	...	2	...	...	...	...
Pericarditis	5	·83	...	2	...	...	...	...	5	2	...	8	4
Hydropericardium	...	...	...	...	...	...	...	...	...	...	...	1	1
Endocarditis	1	·37	...	1	...	1	...	...	2	1	1	...	...
Valvular disease of the heart	178	22·03	15	89	3	...	2	1	50	12	19	129	34
Abscess of the muscular substance of the heart	...	...	...	...	...	...	...	...	...	...	...	2	...
Degeneration of the heart	...	...	...	...	...	...	...	...	1	...	1	...	...
Fatty degeneration of the heart	6	·19	6	...	...	...	...	...	1	2	...	8	8
Atrophy of the heart	...	...	...	...	...	...	...	...	...	...	...	1	1
Hypertrophy ,,	8	1·02	1	3	...	...	...	...	4	...	3	2	2
Dilatation of the heart	7	·42	1	2	...	...	...	...	3	...	1	...	...
Excessive growth of fat in the heart	1	·01	1	...	...	...	...	...	...	...	...	...	...
Aneurysm (of the heart)	...	...	...	...	...	...	...	...	1	2	...	6	6
Rupture	1	...	1	...	...	...	...	...	...	...	...	...	...
Clots in the heart	...	...	...	...	...	...	...	...	...	...	...	4	4
Thrombus in the heart	1	...	1	...	...	...	...	...	3	3	...	3	3
Angina pectoris	...	...	...	...	...	...	...	...	4	1	...	6	1
Syncope	1	...	4	...	1	3	...	2	6	6	...	7	6
Disordered action of the heart	395	37·62	...	75	1	...	...	...	47	...	12	28	...
Atheroma	...	·07	...	1	...	...	...	...	...	...	...	1	1
Endarteritis obliterans	1	·07	...	...	...	...	...	...	...	...	...	...	...
Dilatation of the arteries	...	...	...	...	...	...	...	...	...	...	...	10	6
Aneurysm ,,	12	1·37	6	3	1	...	...	...	8	2	2	...	...
Thrombosis of arteries	4	·15	1	...	...	...	...	...	...	...	...	4	6
Embolism ,,	1	·01	1	...	...	1	...	...	2	2	...	1	1
Phlebitis	15	·81	...	5	1	...	...	...	9	...	1	1	...
Obstruction of veins	5	·12	...	4	...	...	...	...	...	...	...	1	...
Thrombosis of veins	28	2·02	...	6	...	...	...	...	2	1	...	...	...
Phlegmasia dolens	2	·30	...	2	4	...	...	...	...	...	...	...	...
Varix	56	4·45	...	21	2	...	...	...	31	...	25	2	...
Varicose aneurysm	...	...	...	...	...	...	...	...	...	...	...	1	...
Croup	...	...	...	...	...	...	10	2	...	...	...	...	...
Hay-fever	...	...	...	...	...	...	...	...	1	...	...	...	...
Laryngitis	...	...	...	...	...	...	2	2	71	5	...	44	4
Œdema of glottis	36	2·50	...	1	...	...	...	1	1	1	...	...	...
Aphonia	...	...	...	...	...	...	...	...	...	...	...	...	...
Spasm	...	·12	...	1	...	...	...	...	...	...	...	...	...
Tracheitis	...	...	...	...	...	...	...	...	...	...	...	2	1
Bronchitis	...	...	...	...	...	...	...	...	1	...	...	...	...
Dilatation of bronchi	1,213	65·44	...	9	44	...	351	19	2,347	22	98	2,359	46
Spasmodic asthma	...	·27	...	1	...	...	...	...	1	...	...	2	2
Congestion of lungs	26	2·08	...	7	...	...	1	...	190	2	12	884	10
Hæmoptysis	6	·47	...	...	...	...	...	...	8	...	...	12	7
Pulmonary apoplexy	9	·83	...	1	...	...	...	...	21	1	2	34	...
Œdema of lung	...	...	...	...	...	...	...	...	...	...	...	1	1
Pneumonia	...	...	...	...	...	...	...	...	...	...	...	1	...
Broncho-pneumonia	201	17·06	33	...	5	3	19	5	1,386	293	6	1,812	301
Abscess of the lungs	4	·46	...	...	...	...	5	2	28	...	...	30	...
Gangrene ,,	3	·37	1	...	...	...	...	...	...	...	...	4	4
Cirrhosis ,,	...	...	...	...	...	...	...	...	1	1	...	12	11
Phthisis	...	...	...	...	...	...	...	...	...	...	...	4	2
Emphysema	14	3·15	1	4	1	...	2	...	55	12	9	28	8
Collapse of lung	2	·10	...	...	...	...	...	...	1	...	2	2	1
	...	...	...	...	...	...	...	...	1	...	...	1	1

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Pleurisy	97	9·88	2	5	...	...	...	...	208	10	...	181	19
Empyema	5	·90	1	1	...	...	...	...	1	...	1	5	1
Hæmothorax	...	...	...	...	...	...	...	...	...	...	...	1	...
Hydrothorax	...	...	...	...	...	...	...	...	1	...	...	2	2
Adhesions including thickening and calcification of pleura	...	...	...	1	...	...	...	...	...	...	...	...	...
Inflammation of lips	3	·06	...	...	...	...	...	...	4	...	...	...	...
,, ,, vesicular	...	...	...	...	...	...	...	...	1	...	...	1	...
Ulceration of lips	2	·14	...	...	...	...	...	...	7	...	...	1	...
Fissure of ,,	1	·02	...	...	...	...	...	...	...	...	...	1	...
Stomatitis	15	·78	...	...	...	...	10	...	25	1	...	293	...
,, vesicular	...	...	...	...	...	...	...	...	6	...	...	...	...
Ulceration of the mouth	8	·28	...	...	...	...	2	...	25	...	...	654	1
Gangrene ,,	...	...	...	...	...	...	...	...	1	...	...	132	23
Disorders of dentition	...	...	...	...	...	...	138	26	3	...	...	1	...
,, ,, with convulsions	...	...	...	...	...	...	20	14	...	...	...	...	...
,, ,, with diarrhœa	...	...	...	...	...	...	26	5	...	...	...	...	...
Inflammation of dental pulp	1	·01	...	...	...	...	...	...	...	...	...	1	...
Caries of dentine	22	·75	...	3	2	...	...	...	20	...	...	21	...
Inflammation of the dental periosteum	99	3·23	...	...	1	...	1	...	15	...	...	2	...
Gum-boil	205	6·50	...	...	1	...	1	...	163	...	...	277	...
Inflammation of the gums and periosteum	9	·34	...	...	...	...	...	...	11	...	...	8	...
Suppuration of the gums and periosteum	2	·03	...	...	...	...	...	...	3	...	...	2	...
Ulceration of the gums	21	·80	...	...	...	...	...	...	14	...	...	152	...
Caries of alveoli	1	·08	...	...	...	...	...	...	7	...	...	12	...
Necrosis ,,	5	·32	...	...	...	...	...	...	10	1	1	1	...
Hypertrophy of alveoli	...	...	...	...	...	...	...	...	...	...	...	4	...
Impaction of teeth	...	...	...	...	...	...	...	...	1	...	...	...	...
Toothache	1	...	...	...	...	...	...	...	4	...	...	3	...
Glossitis	3	·07	...	...	...	...	...	...	8	...	...	2	...
Ulceration of tongue	1	·02	...	...	...	...	...	...	5	...	...	7	...
Sorethroat	1,280	42·90	...	...	18	...	29	...	140	...	...	112	1
Ulceration of the fauces	10	·97	...	...	1	...	2	...	16	...	...	...	...
Tonsillitis	87	2·58	...	...	1	...	5	...	83	...	...	74	...
Follicular tonsillitis	537	18·96	...	...	10	...	15	1	159	...	...	...	...
Quinsy	170	7·18	...	...	9	...	3	...	21	...	...	59	...
Hypertrophy of the tonsils	12	2·66	...	...	...	...	...	...	1	...	...	14	...
Elongated uvula	1	·01	...	...	...	...	...	...	3	...	...	2	...
Inflammation of salivary glands	6	·22	...	...	...	...	...	...	21	...	...	15	1
Suppuration ,, ,,	...	...	...	...	...	...	...	...	1	1	...	...	...
Salivation	...	...	...	...	...	...	...	...	2	...	...	1	...
Inflammation of the pharynx and œsophagus	4	·08	...	...	...	...	...	...	23	...	...	8	...
Post-pharyngeal abscess	...	...	...	...	...	...	...	...	1	...	...	2	...
Ulceration of the pharynx and œsophagus	2	·25	...	...	...	...	...	...	...	...	...	1	...
Gastritis	70	4·26	2	1	15	2	7	1	53	1	2	78	1
Ulceration of the stomach	4	·73	...	...	2	...	...	...	...	...	...	5	4
Perforating ulceration ,,	1	...	1	...	...	...	...	...	...	...	...	2	2
Hæmorrhage from the stomach	...	·02	...	...	...	...	...	...	...	...	...	...	...
Hæmatemesis	...	...	...	...	...	...	...	...	7	1	...	14	...
Melæna	...	...	...	...	...	...	...	...	...	...	...	4	...
Dilatation of the stomach	1	·10	...	...	...	...	...	...	...	...	...	...	...
Stricture ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	1
Indigestion	708	25·93	...	3	52	...	20	...	178	...	3	841	1
Pyrosis	5	·45	...	...	2	..	...	...	4	...	...	...	...
Vomiting	...	...	...	...	1	...	...	...	2	...	...	2	...
Gastralgia	...	...	...	...	...	...	...	...	2	...	...	4	...
Loss of appetite	...	...	...	...	...	...	...	...	...	...	...	35	...
Inflammation of intestines	...	...	...	...	4	1	...	...	3	2	...	602	16
Enteritis	18	·90	2	1	...	...	11	7	69	8	2	153	30
Typhlitis	63	6·39	5	10	...	...	...	...	31	2	...	10	2
Colitis	...	·01	...	1	...	...	...	...	5	1	...	3	2
Catarrhal inflammation of the intestines	89	4·51	...	2	...	...	29	4	139	1	4	...	...
Ulceration of the intestines	...	...	...	...	...	...	...	...	...	...	...	15	5
Gangrene of the intestines	...	...	...	...	...	...	...	...	...	...	...	1	1
Hæmorrhage from the intestines, including melæna	8	·39	...	...	...	...	...	...	2	...	...	11	...
Concretions in the intestines	...	...	...	...	...	...	...	...	1	1	...	...	...
Fæcal accumulation in the intestines	2	·03	...	...	...	...	...	...	2	...	...	3	1
Tympanites	1	·04	...	...	...	...	...	...	1	...	...	...	...
Sprue	1	·27	...	1	...	...	...	...	...	...	...	...	...
Hernia	96	8·48	...	18	...	...	4	...	46	...	21	56	1
Intussusception	...	...	...	...	...	...	...	...	3	1	...	4	4
Volvulus	2	...	2	...	...	...	...	...	1	1	...	3	3
Internal strangulation of intestines	...	...	...	...	...	...	...	...	...	...	...	2	2
Contraction of intestines	...	...	...	...	...	...	...	...	...	...	...	1	...
Obstruction ,, ,,	1	·10	...	1	...	...	...	...	9	8	...	11	5
Perforation ,, ,,	1	·01	1	...	...	...	...	...	...	...	...	1	...
Rupture ,, ,,	...	...	...	...	...	...	...	...	1	...	...	...	...
Intestinal dyspepsia	1	·01	...	...	...	...	...	...	1	...	...	...	...
Constipation	24	1·09	...	...	3	...	8	...	30	...	...	106	...
Intestinal paresis	1	·02	...	...	...	...	...	...	1	...	...	...	...
Colic	309	9·11	...	...	26	...	5	...	228	...	...	588	1
Diarrhœa	1,661	62·17	3	8	42	...	240	45	1,116	12	9	7,471	363
Enteralgia	...	...	...	...	...	...	...	...	5	...	...	1	...
Proctitis	2	·31	...	...	...	...	...	...	...	...	...	...	...
Periproctitis	14	·98	1	...	...	...	...	...	13	...	...	...	...
Abscess of the rectum and ani	3	·35	...	1	...	...	...	...	10	...	...	17	...
Ulceration ,, ,, ,,	3	·67	...	...	...	...	...	...	5	...	1	25	3
Fissure of the anus	9	1·29	...	...	...	...	...	...	11	...	...	6	...
Fistula in ano	43	5·34	...	3	...	...	...	...	45	...	5	36	...
Recto-vesical fistula	...	...	...	...	...	...	...	...	...	...	...	1	...
Gangrene of the rectum	...	...	...	...	...	...	...	...	1	1	...	...	...
Hæmorrhage from ,,	1	·03	...	...	...	...	...	...	...	...	...	...	...
Prolapse of ,,	5	·71	...	3	...	...	1	...	5	...	...	20	...
Piles	411	20·41	...	2	6	...	1	...	221	1	12	477	1
Pruritus anus	...	...	...	...	...	...	...	...	...	...	...	1	...
Hepatitis	490	40·42	...	41	6	1	...	...	66	9	1	60	8
Abscess of the liver	145	18·11	86	31	1	...	...	...	10	8	...	12	6
Cirrhosis ,, ,,	12	1·73	3	5	1	...	1	...	6	...	...	41	26
Perihepatitis	9	·81	...	...	1	...	...	...	5	...	...	1	...
Congestion of the liver	668	44·82	...	18	16	...	3	...	83	1	1	48	3

TABLE LIII—*continued.*

DETAIL of DISEASES.

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Acute yellow atrophy of the liver	1	·01	1	...	2	2	...	...	2	2	...	...	...
Fatty degeneration ,,	...	...	...	...	...	...	...	...	...	...	...	1	1
Atrophy of the liver	...	...	...	...	...	...	...	...	...	...	...	6	4
Hypertrophy of ,,	1	·09	...	1	1	...	...	...	5	1	...	3	...
Jaundice	356	21·65	...	...	2	...	2	...	101	3	...	444	6
Cholecystitis	38	2·15	...	...	...	...	...	...	8	...	...	8	...
Gallstones	1	·03	...	...	1	...	...	...	1	...	...	6	1
Accumulation of bile and mucus in the hepatic ducts and gall-bladder	3	·20	...	...	...	...	...	...	1	...	...	...	...
Biliary colic	1	·02	...	...	...	...	...	...	4	...	...	1	...
Contraction and stricture of the hepatic ducts and gall-bladder	...	...	...	...	...	...	...	...	...	...	...	1	1
Plugging of ,, ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	1
Peritonitis	15	·72	9	...	1	...	1	1	6	2	...	26	26
,, puerperal	...	...	...	...	...	...	...	...	...	...	...	1	...
Ascites	...	...	...	...	...	...	...	...	7	2	2	109	36
Omental hernia	1	·10	...	...	...	...	...	...	1	...	...	...	...
Splenitis	48	2·28	...	2	1	...	...	...	102	1	4	41	...
Abscess of the spleen	1	·02	1	...	...	...	...	...	...	...	...	2	2
Congestion ,,	6	·29	...	2	...	...	...	...	9	1	...	3	...
Hypertrophy ,,	2	·25	1	...	...	...	...	...	55	2	14	120	8
Inflammation of lymph-vessels and glands	1,836	231·13	...	10	7	...	10	...	371	...	2	200	...
Suppuration ,, ,,	139	18·03	1	4	1	...	3	...	48	...	...	86	1
Hypertrophy of lymph-glands	4	·73	...	...	...	...	...	...	8	...	...	8	...
Inflammation of lymphatics	12	1·02	...	1	1	...	...	...	5	...	...	6	2
Obstruction ,, ,,	1	·13	...	...	...	...	...	...	...	...	...	1	...
Dilatation ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Elephantiasis	...	...	...	...	...	...	...	...	1	...	1	6	...
Inflammation of thyroid body	2	·03	...	...	...	...	...	...	1	...	...	...	...
Hypertrophy ,, ,,	1	·22	...	1	...	...	...	...	...	...	...	...	...
Goître	4	·45	...	...	2	...	...	...	12	...	...	1	...
Addison's disease	1	·13	...	1	...	...	...	...	1	...	...	...	...
Acute nephritis	37	4·07	5	1	1	...	...	...	28	3	1	26	5
Bright's disease	...	...	...	...	...	...	...	...	8	1	2	70	18
Chronic nephritis	24	2·19	5	8	3	...	...	...	3	2	...	10	...
Granular kidney	7	1·46	3	3	1	...	...	...	1	...	1	6	4
Abscess of kidney	...	·04	...	...	...	...	...	...	...	...	...	1	1
Perinephritic abscess	...	...	...	...	...	...	...	...	1	...	...	...	...
Pyelitis	...	...	...	...	...	...	...	...	1	1	...	2	2
Calculus in kidney	2	·03	...	1	...	...	...	...	7	...	...	2	1
,, in pelvis of kidney	1	·10	...	...	...	...	...	...	5	...	...	...	...
,, in ureter	...	...	...	...	...	...	...	...	10	...	...	5	...
Nephralgia	1	·02	...	...	...	...	...	...	9	...	...	3	...
Glycosuria	...	...	...	...	...	...	...	...	1	...	...	...	...
Suppression of urine	...	...	...	...	3	...	...	...	...	...	...	2	1
Hæmaturia	6	·50	...	...	...	...	...	...	5	...	...	7	...
Hæmoglobinuria	2	·10	...	...	...	...	...	...	...	...	...	...	...
Albuminuria	3	·28	...	...	...	...	...	...	4	...	1	14	2
Lithuria	1	·03	...	...	...	...	...	...	3	...	...	4	...
Inflammation of the bladder	26	1·49	...	2	1	...	...	...	11	2	...	16	...
Hernia ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Rupture* ,, ,,	1	·01	1	...	...	...	...	...	...	...	...	...	...
Recto vesical fistula	...	...	...	...	...	...	...	...	1	...	...	...	...
Calculus in the bladder	...	...	...	...	...	...	...	...	10	1	...	9	...
Irritability of the bladder	2	·30	...	...	...	...	...	...	3	...	...	1	...
Retention of urine	2	·14	...	...	...	...	1	...	3	...	...	6	...
Incontinence of urine	12	·55	...	1	...	...	3	...	...	...	...	1	...
Urethritis	3	·18	...	...	...	...	1	...	8	...	...	9	...
Gleet	...	...	...	...	...	...	...	...	...	...	...	2	...
Abscess of the urethra	3	·13	...	...	...	...	...	...	1	...	...	...	...
Ulcer ,,	...	...	...	...	...	...	...	...	...	...	...	4	...
Hæmorrhage from the urethra	1	·02	...	...	...	...	1	...	...	...	...	...	...
Stricture of the ,, not defined	48	5·30	...	6	...	...	...	...	10	...	...	26	...
,, ,, organic	...	...	...	...	...	...	...	...	2	...	...	4	...
,, ,, traumatic	4	·47	...	1	...	...	...	...	...	...	...	1	...
,, ,, spasmodic	7	·48	...	1	...	...	...	...	1	...	1	2	...
Urethral fistula	5	·30	...	1	...	...	...	...	1	...	...	7	...
Extravasation of urine	...	...	...	...	...	...	...	...	2	1	1	1	...
Impacted calculus	...	...	...	...	...	...	...	...	1	...	...	4	...
Inflammation of the prostate	4	·21	...	...	...	...	...	...	...	...	...	2	...
Prostatorrhœa	2	·19	...	...	...	...	...	...	...	...	...	...	...
Abscess of the prostate	...	...	...	...	...	...	...	...	1	...	...	...	...
Hypertrophy ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Calculus in the ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Posthitis	5	·41	...	...	...	...	...	...	1	...	...	...	...
Œdema of the prepuce	1	·03	...	...	...	...	...	...	1	...	...	3	...
Hypertrophy ,,	...	...	...	...	...	...	1	...	...	...	...	...	...
Phimosis	10	·67	...	...	...	...	...	...	9	...	...	57	...
Paraphimosis	9	·40	...	...	...	...	...	...	9	...	...	8	...
Balanitis	168	8·14	...	...	...	...	...	...	14	...	...	7	...
Abscess of the penis	3	·22	...	...	...	...	...	...	...	...	...	...	...
Ulcer ,,	76	5·00	...	...	...	...	...	...	151	...	...	28	...
Gangrene ,,	1	·01	1	...	...	...	...	...	...	...	...	...	...
Œdema ,,	2	·10	...	...	...	...	...	...	1	...	...	...	...
Soft chancre ,,	5,483	447·20	...	2	...	...	...	...	548	...	2	92	...
Inflammation of the scrotum	...	...	...	...	...	...	...	...	...	...	...	1	...
Abscess ,, ,,	4	·20	...	...	...	...	...	...	5	...	...	20	...
Sloughing ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	1
Œdema ,, ,,	...	...	...	...	...	...	...	...	...	...	...	3	...
Soft chancre ,, ,,	17	1·02	...	...	...	...	...	...	5	...	...	...	...
Inflammation of the spermatic cord	2	·11	...	...	...	...	...	...	5	...	...	3	...
Abscess ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Hydrocele ,, ,,	7	·46	...	...	...	...	...	...	1	...	...	8	...
Hæmatocele ,, ,,	...	...	...	...	...	...	...	...	...	...	...	1	...
Varicocele ,, ,,	30	1·47	...	...	...	...	...	...	2	...	1	...	...
Inflammation of the tunica vaginalis	1	·12	...	...	...	...	...	...	1	...	...	...	...
Hæmatocele ,, ,,	2	·14	...	...	...	...	...	...	...	...	...	75	...
Hydrocele ,, ,,	37	2·81	...	1	...	...	...	...	42	...	4	...	...
Inflammation of the testicle	...	...	...	...	...	...	...	...	1	...	...	23	...
Orchitis	477	30·84	...	2	...	...	1	...	294	...	4	117	...
Epididymitis	16	1·18	...	...	...	...	...	...	25	...	...	1	...
Abscess of the testicle	1	·15	...	...	...	...	...	...	...	...	...	2	...
Protrusion of tubuli	1	·22	...	...	...	...	...	...	1	...	...	1	...
Spermatorrhœa	...	...	...	...	...	...	...	...	1	...	...	1	...

* This case should have been shown under accidental injuries.

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Inflammation of the ovary	...	...	...	...	17	...	...	...	...	...	...	...	...
Prolapse „ „	...	...	...	...	1	...	...	...	...	...	...	...	...
Perimetritis (649 *a*)	...	...	...	...	2	...	...	...	...	...	...	...	...
Parametritis (649 *b*)	...	...	...	...	1	...	...	...	...	...	...	...	...
Metritis (651)	...	...	...	...	25	...	...	...	...	...	...	1	...
Ulcer of the uterus (653)	...	...	...	...	1	...	...	...	...	...	...	...	...
Hæmorrhage from the uterus (654)	...	...	...	...	1	...	...	...	...	...	...	1	...
Hypertrophy of the uterus (656)	...	...	...	...	2	...	...	...	...	...	...	...	...
Subinvolution „ „ (656 *a*)	...	...	...	...	5	...	...	...	...	...	...	...	...
Abrasion „ „ (657)	...	...	...	...	1	...	...	...	...	...	...	...	...
Anteversion of the uterus (659 *a*)	...	...	...	...	1	...	...	...	...	...	...	...	...
Anteflexion „ „ (659 *c*)	...	...	...	...	4	...	...	...	...	...	...	...	...
Retroflexion „ „ (659 *d*)	...	...	...	...	6	...	...	...	...	...	...	...	...
Prolapsus „ „ (659 *f*)	...	...	...	...	7	...	...	...	...	...	...	2	...
Inflammation of the vagina (666)	...	...	...	...	...	...	2	...	...	...	...	...	...
Ulcer of the vulva	...	...	...	...	...	...	...	...	...	...	...	4	...
Amenorrhœa	...	...	...	...	2	...	...	...	...	...	...	1	...
Dysmenorrhœa	...	...	...	...	7	...	...	...	...	...	...	4	...
Menorrhagia	...	...	...	...	18	...	...	...	...	...	...	5	...
Metrorrhagia	...	...	...	...	11	...	...	...	...	...	...	1	...
Leucorrhœa	...	...	...	...	10	...	...	...	...	...	...	4	...
Vaginismus	...	...	...	...	2	...	...	...	...	...	...	...	...
Hydrorrhœa	...	...	...	...	1	...	...	...	...	...	...	...	...
Cramps and spurious labour pains	...	...	...	...	14	...	...	...	...	...	...	...	...
Catarrh of cervix uteri	...	...	...	...	3	...	...	...	...	...	...	...	...
Hæmorrhage from the uterus (699)	...	...	...	...	7	1	...	...	...	...	...	...	...
Abortion	...	...	...	...	86	...	...	...	...	...	...	17	...
Carneous mole	...	...	...	...	1	...	...	...	...	...	...	...	...
Missed labour	...	...	...	...	...	...	...	...	...	...	...	1	...
Atony of the uterus (706)	...	...	...	...	2	...	...	...	...	...	...	...	...
Mechanical obstacle to the expulsion of the fœtus (708)	...	...	...	...	2	...	...	...	...	...	...	1	...
Hæmorrhage, unavoidable, from placenta prævia	...	...	...	...	2	1	...	...	...	...	...	...	...
Rupture of the uterus (710)	...	...	...	...	5	...	...	...	...	...	...	2	1
Retention of the placenta	...	...	...	...	...	...	...	...	...	...	...	1	...
Still-birth	...	...	...	...	7	...	...	...	...	...	...	...	...
Post-partum hæmorrhage (714)	...	...	...	...	1	...	...	...	...	...	...	1	...
Metritis (716)	...	...	...	...	...	...	...	...	...	...	...	1	...
Sudden death after delivery	...	...	...	...	1	1	...	...	...	...	...	1	1
Inflammation of the nipple and areola	...	...	...	...	1	...	...	...	...	...	...	...	...
Sore nipples	...	...	...	...	1	...	...	...	...	...	...	...	...
Abscess of the areola	...	...	...	...	1	...	...	...	...	...	...	3	...
Mastitis (722)	...	...	...	...	10	...	1	...	...	...	...	2	...
Suppuration of mammary gland	...	...	...	..	6	...	...	...	...	...	...	...	...
„ „ puerperal	...	...	...	...	4	...	...	...	...	...	...	...	...
Inflammation of the male breast	3	·13	...	...	...	...	...	...	1	...	...	2	...
Hypertrophy of „ „	2	·24	...	...	...	...	...	...	1	...	...	...	...
Ostitis	6	·50	...	1	...	...	...	...	15	...	...	4	1
Periostitis	...	...	...	...	...	...	...	...	32	...	3	38	...
„ circumscribed	36	3·05	...	3	1	...	1	...	14	...	1	1	...
„ diffuse	11	1·28	...	2	...	...	1	...	3	...	...	...	...
Perichondritis	2	·34	...	1	...	...	...	...	1	...	...	...	...
Chronic abscess of bone	...	...	...	...	...	...	...	...	2	...	1	...	...
Caries of bone	12	1·83	1	6	...	...	...	...	8	...	...	18	2
Necrosis „	7	·52	...	2	2	...	5	...	4	2	...	27	3
Hypertrophy of bone	...	...	...	...	...	...	...	...	2	...	1	...	...
Osteitis deformans	1	·06	...	...	...	...	...	...	...	...	...	...	...
Inflammation of joints	12	·66	...	...	...	...	...	...	...	...	...	...	...
Synovitis	393	33·45	...	23	1	...	2	...	323	...	7	188	3
Ankylosis (749)	17	1·27	...	9	...	...	...	...	7	...	5	3	...
Dislocation of articular cartilage, including loose cartilage	19	3·11	...	2	...	...	...	...	1	...	2	...	...
Loose body	1	·07	...	1	...	...	...	...	...	...	1	...	...
Dislocation of joint	...	...	...	...	...	...	...	...	...	...	...	1	...
Inflammation of the spine	...	...	...	...	...	...	...	...	2	...	...	...	...
Caries „ „	1	1·18	1	...	1	...	...	...	1	...	...	...	...
Necrosis „ „	3	·04	...	1	...	...	...	...	...	...	...	1	...
Psoas and lumbar abscess	5	·66	1	2	...	...	...	...	2	1	...	2	2
Posterior curvature of the spine	2	·29	...	1	...	...	1	...	2	...	1	...	...
Angular „ „	..	...	...	...	...	...	...	...	1	1	...	...	...
Lateral „ „	3	·29	...	2	...	...	...	...	1	...	1	1	...
Anterior „ „	...	...	...	...	...	...	...	...	...	...	...	2	1
Inflammation of muscles	...	...	...	...	...	...	...	...	6	...	...	7	...
Suppuration „ „	1	·02	...	...	...	...	1	...	6	...	...	10	2
Atrophy „ „	1	·25	...	...	...	...	...	...	3	...	3	...	...
Hypertrophy „ „	...	·09	...	1	...	...	...	...	...	...	...	...	...
Spontaneous rupture of muscles	2	·30	...	1	...	...	...	...	1	...	...	1	...
Contracture of muscles	...	...	...	...	...	...	...	...	2	...	1	...	...
Idiopathic muscular atrophy	...	...	...	...	...	...	1	...	...	...	...	1	...
Myalgia	138	6·07	...	...	2	...	...	...	182	...	6	101	...
Contracture of fasciæ	1	·04	...	1	...	...	...	...	...	...	...	...	...
Inflammation of tendons	...	...	...	...	...	...	...	...	4	...	...	...	...
Adhesion „	...	...	...	...	...	...	...	...	1	...	1	...	...
Contraction „	11	1·12	...	4	...	...	...	...	6	...	3	...	...
Tenosynovitis	2	·08	...	...	...	...	...	...	...	...	...	8	...
Thecal abscess	2	·04	...	...	...	...	...	...	4	...	...	...	...
Ganglion	6	·53	...	...	...	...	...	...	10	...	2	1	...
Inflammation of bursæ	29	1·38	...	...	...	..	...	...	19	...	1	1	...
Abscess „ „	1	·06	...	...	...	..	...	...	3	...	...	2	...
Bunion	7	·44	...	...	...	..	...	...	3	...	1	...	...
Bursal tumour	1	·07	...	...	1	...	...	...	3	...	1	...	...
Club-foot	2	·09	...	1	...	...	...	...	...	...	...	...	...
Flat-foot	10	·81	...	9	...	...	...	...	3	...	2	...	...
Deformities of great toe	6	·42	...	2	...	...	...	...	...	...	...	...	...
Hallux valgus	4	·24	...	1	...	...	...	...	...	...	...	...	...
Hammer toe	3	·69	...	3	...	...	...	...	...	...	...	...	...
Inflammation of connective tissue	435	19·50	...	...	2	...	9	...	311	1	2	342	5
Abscess „ „	977	50·67	...	3	5	...	30	2	1,569	1	1	4,108	3
Gangrene „ „	...	...	...	...	...	...	...	...	2	1	...	5	3
Œdema „ „	...	...	...	...	1	...	...	...	15	...	...	28	2
Elephantiasis	...	...	...	...	...	...	...	...	...	...	...	12	...
Emphysema of connective tissue	...	...	...	...	...	...	...	...	...	...	3	...	...
Undue formation of fat	...	...	...	...	...	...	...	...	4	...	5	...	...
Erythema	32	1·31	...	1	...	...	...	...	6	...	...	10	...

TABLE LIII—*continued.*

DETAIL of DISEASES.

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Pityriasis rosea	...	...	...	...	...	...	...	...	...	...	...	1	...
Urticaria	38	·94	...	...	3	...	3	...	75	...	2	94	...
Prickly heat	41	1·19	...	...	...	...	...	...	5	...	...	3	...
Eczema	358	17·54	...	1	6	...	43	...	442	...	4	329	...
Impetigo	14	·92	...	...	...	...	6	...	16	...	...	33	...
Pityriasis rubra	...	...	...	...	...	...	...	...	4	...	...	1	...
Prurigo	...	...	...	...	...	...	...	...	3	...	...	2	...
Lichen	2	·07	...	...	...	...	2	...	9	...	...	16	...
Psoriasis	42	3·44	...	2	...	...	...	...	34	...	1	32	...
Miliaria	2	·06	...	...	...	...	1	...	2	...	...	6	...
Herpes	33	1·30	...	...	...	...	2	...	79	...	...	64	...
Zona	46	1·78	...	...	...	...	1	...	124	...	...	48	...
Pemphigus	22	·78	...	...	...	...	2	...	11	...	...	12	...
Dermatitis herpetiformis	...	...	...	...	...	...	...	...	3	...	...	4	...
Acne	8	·51	...	...	...	...	...	...	5	...	...	9	...
Gutta rosea	2	·11	...	...	...	...	...	...	1	...	...	...	...
Sycosis	12	1·54	...	2	...	...	...	...	5	...	...	1	...
Seborrhœa	1	·07	...	...	...	...	...	...	1	...	...	...	...
Ichthyosis	...	...	...	...	...	...	...	...	4	...	...	4	...
Leucodermia	...	...	...	...	...	...	...	...	2	...	1	...	...
Chloasma	1	·01	...	...	...	...	...	...	...	...	...	...	...
Alopecia	1	·04	...	...	...	...	...	...	...	...	...	1	...
Atrophy	...	...	...	...	...	...	...	...	1	...	...	...	...
Chilblain	...	...	...	...	...	...	...	...	2	...	...	3	...
Frostbite	...	...	...	...	...	...	...	...	2	...	...	...	...
Ulcer	559	30·90	...	2	16	...	7	...	2,781	...	2	4,575	4
Cicatrices	...	...	...	...	...	...	...	...	2	...	1	1	...
Boil	1,593	57·43	...	1	13	...	37	...	2,840	...	...	2,200	...
Carbuncle	14	·76	...	...	2	...	...	...	35	1	...	209	4
Gangrene	1	·14	...	1	...	...	...	...	...	...	...	3	2
Whitlow	290	11·88	...	...	1	...	2	...	381	...	...	552	...
Onychia	237	12·82	...	...	1	...	2	...	9	...	...	29	...
Tylosis	...	...	...	...	...	...	...	...	1	...	...	...	...
Corn	32	1·31	...	1	...	...	...	...	15	...	...	1	...
Cheloid	3	·39	...	...	...	...	...	...	1	...	...	2	...
Wen	27	1·29	...	...	...	...	...	...	16	...	...	10	...
Molluscum contagiosum	...	...	...	...	...	...	...	...	...	...	...	1	...
Hyperidrosis	4	·12	...	...	...	...	...	...	1	...	1	...	...
Bromidrosis	1	·05	...	...	...	...	...	...	...	...	...	...	...
Pruritus	...	...	...	...	...	...	...	...	...	...	...	5	...
Lupus	5	·30	...	3	...	...	...	...	...	...	...	2	1
Delhi boil	2	·43	...	1	...	...	...	...	11	...	...	...	...
Xerodermia maligna	...	...	...	...	...	...	...	...	...	...	...	1	...
Rhinoscleroma	...	...	...	...	...	...	1	...	2	...	...	...	...
Fissures	...	...	...	...	...	...	...	...	...	...	1	1	...
Accidental :—													
Heat-stroke	76	5·74	6	2	3	1	...	...	12	1	...	24	10
Sun-stroke	28	1·57	...	2	...	...	3	1	14	4	...	32	13
Heat-apoplexy	153	7·76	45	5	4	3	3	1	6	6	...	47	29
Lightning stroke	1	·02	...	...	...	...	...	...	...	...	...	...	...
Multiple injury	6	1·17	1	...	...	...	...	...	3	...	...	30	5
Suffocation from submersion	1	·01	16	...	...	1	...	1	2	14	...	...	1
„ from plugging of air-passages with foreign substances	...	...	3	...	...	...	...	...	...	...	...	1	1
Suffocation from compression of chest	...	...	1	...	...	...	...	...	1	1	...	...	...
Starvation	...	...	...	...	...	...	...	...	...	...	...	681	40
Exhaustion	1	·02	...	...	...	...	...	...	...	...	...	...	...
Burns and scalds	57	2·59	...	...	2	...	7	1	298	...	...	411	1
Abrasions	608	23·45	...	...	...	...	5	...	1,643	...	...	70	...
Contusions	1,594	61·86	1	5	6	...	16	...	2,441	...	2	1,238	1
Wounds	1,966	83·22	...	2	6	...	40	...	2,849	...	8	3,049	10
Gunshot wounds	59	5·37	4	3	...	...	...	...	97	3	6	20	...
Strains and sprains	1,757	75·26	...	9	9	...	10	...	1,205	...	4	274	...
Dislocations	92	9·10	...	1	...	...	2	...	65	...	9	37	...
Rupture of muscles, tendons, and ligaments	4	·44	...	1	...	...	...	...	1	...	...	...	...
Fractures	269	38·75	...	27	1	...	17	...	278	...	15	663	13
Foreign bodies in the tissues and organs	9	·47	...	...	...	...	1	...	19	...	...	22	...
Effects of irritants and corrosives	3	·17	...	...	...	...	...	...	5	...	...	6	...
Rupture of spleen	...	...	...	...	...	...	...	...	...	...	...	3	6
Fracture of the vault of the skull	4	·38	3	...	...	...	1	...	4	1	1	1	4
„ of the base of the skull	6	·36	5	1	...	...	...	...	5	4	...	1	2
„ of skull, not defined	...	...	...	...	...	...	...	...	...	1	...	...	...
Concussion of the brain	27	2·10	...	6	...	...	2	...	35	1	4	7	...
Compression „ „	...	...	...	...	...	...	...	...	2	...	1	5	4
Chemical injuries of eyelids and eye	1	...	...	...	...	...	...	...	1	...	...	1	...
Sub-conjunctival hæmorrhage	2	·03	...	...	...	...	...	...	...	...	...	1	...
Contusion of eyeball with hæmorrhage	2	·09	...	...	...	...	...	...	...	...	...	...	...
Wound of eyeball with injury to the iris	2	·11	...	...	...	...	...	...	...	...	...	...	...
Hæmatoma of the pinna	...	...	...	...	...	...	...	...	1	...	...	...	...
Rupture of membrana tympani	1	·30	...	...	...	...	...	...	...	...	...	...	...
Foreign bodies in food passages	...	...	...	...	1	...	...	...	...	...	...	...	...
Rupture of heart	...	...	1	...	...	...	...	...	...	...	...	...	...
Fracture of spine	1	·49	2	...	...	...	...	...	...	2	...	...	1
„ with dislocation	2	·20	2	1	...	...	...	...	...	...	...	...	...
Simple fracture of spine with compression and laceration of spinal cord	1	...	1	...	...	...	...	...	...	...	...	...	...
Dislocation of spine	1	·02	2	...	...	...	...	...	...	1	...	...	...
„ of spine with fracture	1	·01	1	...	...	...	...	...	...	...	...	...	...
Concussion of spinal cord	...	·10	...	...	...	...	...	...	3	...	...	...	...
Contusion of abdomen with rupture of muscle	...	...	...	...	...	...	...	...	1	...	...	...	...
Contusion of abdomen with rupture of viscera	...	...	...	...	...	...	...	...	...	...	...	2	...
Rupture and contusion of viscera	2	·11	...	...	...	...	...	...	...	1	...	...	...
Rupture of kidney	...	...	...	...	...	...	...	...	...	...	...	1	...
„ of urethra	1	·06	...	...	...	...	...	...	...	1	...	...	...
Mutilation of genitals	...	...	...	...	...	...	...	...	...	...	...	1	...

Diseases.	European Army of India.								Native Army of India.			Jail Population of India.	
	Men.				Women.		Children.						
	Admissions.	Constantly sick.	Deaths.	Invaliding.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invaliding.	Admissions.	Deaths.
Accidental—*contd.*													
Separation of epiphyses	...	...	...	...	...	...	2	...	...	...	...	...	...
Internal derangement of joints	1	·08	...	1	...	...	...	...	...	...	...	1	...
Killed by fall from horse	...	...	1	...	...	...	...	...	...	...	...	...	...
,, of earth and building	...	...	...	...	...	...	...	...	...	...	...	...	8
Run over by gun	...	...	...	...	...	...	...	...	...	1	...	...	...
Poison, arsenic	1	·14	...	...	...	...	...	...	10	...	...	...	...
,, mercury	...	...	...	...	...	...	...	...	3	1	...	...	...
,, mercurial inflammation of the dental periosteum	...	...	...	...	...	...	1	...	4	...	...	...	...
,, lime	...	...	...	...	...	...	...	...	...	...	...	1	...
,, alcohol	...	...	...	...	...	...	...	...	2	2	...	...	...
,, vegetable poison, not defined	...	...	...	...	...	...	...	...	...	...	...	4	...
,, deadly nightshade	...	...	...	...	...	...	...	...	5	...	...	...	...
,, Indian hemp	...	...	...	...	...	...	...	...	14	1	...	...	...
,, aconite	...	...	...	...	...	...	...	...	1	1	...	...	...
,, opium	1	·01	...	...	...	...	...	...	2	1	...	16	...
,, poisonous fungi	...	...	...	...	1	...	...	...	...	...	...	...	...
,, thorn apple	...	...	...	...	...	...	...	...	4	2	...	1	...
,, white hellebore	...	...	...	...	...	...	...	...	2	...	...	...	...
,, marking nut	...	...	...	...	...	...	...	...	1	...	...	...	...
,, decayed and poisonous food	9	·25	1	...	...	...	...	...	...	...	...	...	...
,, ptomaines	...	...	...	...	...	...	...	...	...	...	...	3	...
,, animal poison not defined	...	...	...	...	...	...	...	...	...	...	...	1	...
,, chloroform vapour	1	...	1	...	...	...	...	...	...	...	...	...	...
,, irritant poison	20	·28	...	...	...	...	...	...	...	...	...	...	...
,, ,, drug	...	...	...	...	...	...	...	...	...	...	...	...	1
Poisoned wound, not defined	...	...	...	...	...	...	...	...	10	...	...	1	...
,, ,, by venomous animal, not defined	...	...	...	...	...	...	...	...	3	...	...	...	...
,, ,, ,, cat	...	...	...	...	...	...	...	...	1	...	...	...	...
,, ,, ,, dog	3	·07	...	2	...	...	1	...	7	...	...	1	...
,, ,, ,, panther	...	...	...	...	...	...	...	...	1	1	...	...	...
,, ,, ,, monkey	...	...	...	...	...	...	...	...	2	...	...	...	...
,, ,, ,, horse	1	·02	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, snake	1	·05	...	...	...	...	...	...	15	3	...	37	1
,, ,, ,, fish	1	·07	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, shark	...	...	...	...	...	...	...	...	2	1	...	...	...
,, ,, ,, crocodile	...	...	...	...	...	...	...	...	1	...	...	...	...
,, ,, ,, scorpion	1	·09	...	...	...	...	...	...	5	...	...	1	...
,, ,, ,, centipede	1	·01	...	...	...	...	...	...	2	...	...	28	...
,, ,, ,, stinging insect	1	·02	...	...	...	...	1	...	1	...	...	3	...
,, ,, ,, septic matter	10	·59	...	...	...	...	...	...	...	...	...	...	...
,, ,, ,, vegetable substance	...	...	...	...	...	...	...	...	1	...	...	...	...
Homicidal :—													
Multiple injury	...	...	...	...	...	...	...	...	...	...	...	...	1
Gunshot wound	...	...	1	...	...	...	...	...	3	13	...	...	...
Cut-throat	1	...	1	...	...	...	...	...	...	...	...	...	...
Fracture of base of skull	...	...	...	...	...	...	...	...	...	...	...	...	2
Killed	...	...	...	...	...	...	...	...	...	...	...	...	1
Murdered	...	...	...	...	...	...	...	...	...	2	...	...	...
Not defined	...	...	...	...	...	...	...	...	...	...	...	...	3
Suicidal :—													
Multiple injury	1	...	1	...	...	...	...	...	...	...	...	...	...
Suffocation from submersion	...	...	4	...	...	...	...	...	1	3	...	...	1
,, from strangulation	...	...	...	...	...	...	...	...	...	2	...	...	3
Gunshot wound	...	...	7	...	...	...	...	...	3	13	...	...	...
Cut-throat	1	...	3	...	...	...	...	...	...	...	...	1	5
Punctured wound of heart	...	...	1	...	...	...	...	...	...	...	...	...	...
Simple fracture with laceration of spinal cord	...	...	1	...	...	...	...	...	...	...	...	...	...
Poison, arsenic	...	...	...	...	...	...	...	...	2	2	...	...	1
,, opium	...	...	...	...	...	...	...	...	2	3	...	...	...
,, thorn apple	...	...	...	...	...	...	...	...	1	1	...	...	...
,, not defined	...	...	...	...	...	...	...	...	...	...	...	2	3
Judicial :—													
Suffocation from strangulation	...	...	...	...	...	...	...	...	...	5	...	...	6
Dislocation of spine	...	...	1	...	...	...	...	...	...	...	...	...	...
Punished	...	...	...	...	...	...	...	...	...	...	...	98	...
In action :—													
Gunshot wound	...	1·91	2	...	...	...	...	...	68	13	3	...	...
Killed	...	...	...	...	...	...	...	...	...	49	...	...	...
Not defined :—													
Suffocation from submersion	...	...	...	...	...	...	...	...	...	...	...	...	1
Cut-throat	...	...	...	...	...	...	...	...	...	...	...	18	1
Physically unfit	...	...	...	...	...	...	...	...	...	...	2	...	...
No appreciable disease	159	6·72	...	...	3	...	...	...	41	...	...	181	...
Not yet diagnosed	...	...	...	...	...	...	...	...	3	...	...	14	...
Cause unknown	...	...	...	...	...	...	...	...	...	6	...	...	2
Absent deaths	...	...	...	...	...	...	...	...	...	462	...	...	...
Grand Total	96,824	6,541·90	1,214	2,258*	2,461	49	3,286	290	94,635†	1,716	1,649	123,394	4,577

* Bengal Command . 823 = 40·9 per 1,000 of strength.
Punjab ,, . 376 = 21·0 ,, ,, ,, ,,
Madras ,, . 587 = 47·5 ,, ,, ,, ,,
Bombay ,, . 472 = 31·8 ,, ,, ,, ,,
India . . 2,258 = 35·0 ,, ,, ,, ,,

† The figures, having been derived from the annual returns, do not agree with those in Table XXIX.

TABLE LIII—*continued.*

Diseases.	Troops on Field Service. European troops 3,864. Admissions.	Deaths.	Native troops 11,141. Admissions.	Deaths.
Chicken-pox	...	...	1	...
Influenza	...	...	1	...
Mumps	3	...	71	...
Diphtheria	...	1	...	...
Simple continued fever	184	...	13	...
Enteric fever	164	60	6	...
Cholera	1	...	...	...
Epidemic diarrhœa	166	1	...	...
Dysentery	911	91	3,043	38
Ague	4,685	11	5,622	27
Remittent fever	551	14	201	16
Erysipelas	4	1	...	...
Tetanus	...	...	1	1
Tubercle of the lungs	3	1	10	2
Primary syphilis	143	...	108	1
Secondary ,,	114	...	36	...
Tertiary ,,	...	...	1	...
Gonorrhœa	147	...	107	...
Animal parasites, not defined	...	...	1	...
Tænia solium	2	...	...	...
Guinea-worm	...	...	15	...
Scabies	4	...	21	...
Ringworm	2	...	3	...
Scurvy	1	...	62	...
Alcoholism	4	2	...	...
Rheumatic fever	4	...	15	2
Rheumatism	143	...	205	...
Non-malignant new growth, not defined	5	...	...	...
Anæmia	23	...	65	2
Debility	218	3	379	5
Degeneration of spinal cord	1	...	...	...
Cerebral meningitis	2	2	1	...
Encephalitis	...	...	1	...
Apoplexy	1	1	1	1
Paralysis	...	...	4	...
Hemiplegia	1	...	...	...
Local paralysis	...	...	3	...
Chorea	...	...	1	...
Epilepsy	6	...	2	...
Headache	...	...	1	...
Neuralgia	4	...	18	...
Hysteria	2	...	...	...
Hiccough	...	...	1	...
Nervous weakness	1	...	...	...
Mania	2	...	1	...
Melancholia	1	...	1	...
Conjunctivitis	12	...	34	...
,, catarrhal	...	...	12	...
Keratitis	...	...	5	...
Ulcerative keratitis	1	...	28	...
Iritis	2	...	7	...

Diseases.	Troops on Field Service. European troops 3,864. Admissions.	Deaths.	Native troops 11,141. Admissions.	Deaths.
Optic neuritis	1	...	...	...
Atrophy of optic nerve	1	...	...	...
Anæmia of retina	1	...	...	...
Functional night-blindness	...	...	4	...
Blepharitis marginalis	2	...	...	...
Stye	...	...	1	...
Inflammation of the external ear	9	...	13	...
Abscess of the ,, ,,	9	...	...	...
Inflammation of the middle ear	1	...	...	...
,, ,, suppurative	...	...	1	...
Ulceration of membrana tympani	...	...	1	...
Perforation of ,, ,,	2	...	...	...
Valvular disease of the heart	5	...	4	...
Angina pectoris	...	...	1	...
Syncope	...	...	...	1
Disordered action of the heart	11	...	2	...
Phlegmasia dolens	1	...	...	...
Varix	6	...	2	...
Laryngitis	4	...	22	1
Aphonia	...	...	2	...
Tracheitis	...	...	1	...
Bronchitis	134	1	222	9
Spasmodic asthma	...	...	6	...
Congestion of the lungs	1	...	4	...
Hæmoptysis	1	...	2	...
Pneumonia	29	8	267	61
Phthisis	...	...	9	1
Emphysema of the lung	...	...	1	...
Pleurisy	2	...	29	...
Empyema	1	1	...	...
Stomatitis	...	...	1	...
Caries of dentine	...	...	1	...
Inflammation of the dental periosteum	1	...	1	...
Abscess of the ,, ,,	6	...	8	...
Suppuration of alveoli	1	...	...	...
Ulceration of gums and alveoli	...	...	1	...
Necrosis of alveoli	...	...	1	...
Glossitis	...	...	1	...
Sorethroat	32	...	12	...
Tonsillitis	...	...	7	...
Follicular tonsillitis	16	...	6	...
Quinsy	6	...	5	...
Hypertrophy of the tonsils	1	...	...	...
Elongated uvula	...	...	1	...
Inflammation of the pharynx	...	...	1	...
Indigestion	17	...	22	...
Enteritis	1	...	3	...
Hernia	7	...	11	1
Intussusception	...	...	...	1
Volvulus	1	1	1	...
Obstruction of the intestines	...	...	3	2

Diseases.	TROOPS ON FIELD SERVICE.			
	European troops 3,864.		Native troops 11,141.	
	Admissions.	Deaths.	Admissions.	Deaths.
Constipation	2	...	5	...
Colic	19	...	44	...
Diarrhœa	443	12	683	10
Ulceration of the rectum	...	...	1	...
Fissure of the anus	...	...	1	...
Fistula in ano	2	...	4	...
Piles	35	...	19	...
Hepatitis	22	2	7	1
Abscess of the liver	2	2	...	...
Congestion of the liver	11	...	9	...
Jaundice	51	...	91	1
Cholecystitis	1	...	...	...
Biliary colic	1	...	...	...
Peritonitis	...	...	3	3
Ascites	1	...	1	1
Splenitis	1	...	113	...
Abscess of the spleen	1	...	...	...
Congestion of the spleen	1	...	...	...
Inflammation of lymph-glands	55	...	31	...
Suppuration of „ „	10	...	4	...
Inflammation of lymphatics	4	1	...	...
Goître	...	...	1	...
Acute nephritis	7	...	3	1
Bright's disease	6	2	...	...
Chronic nephritis	4	...	...	...
Calculus in kidney	...	...	4	...
Hæmaturia	1	...	...	...
Inflammation of the bladder	2	...	...	...
Calculus in the bladder	...	...	...	1
Irritability of the bladder	...	...	1	...
Incontinence of urine	1	...	2	...
Stricture of the urethra	2	...	...	...
Extravasation of urine	...	...	1	1
Phimosis	1	...	...	...
Balanitis	2	...	...	...
Ulcer of the penis	5	...	23	...
Soft chancre	47	...	21	...
Hydrocele of the spermatic cord	1	...	...	...
Hæmatocele	...	...	1	...
Varicocele	2	...	...	...
Orchitis	28	...	24	...
Epididymitis	1	...	1	...
Ostitis	1	...	...	...
Periostitis	...	...	3	...
Necrosis of bones	1	...	1	...
Synovitis	27	...	24	...
Knock-knee	1	...	...	...
Myalgia	...	...	6	...
Inflammation of bursæ	...	...	2	...
Bunion	2	...	...	...
Flat-foot	2	...	...	...

Diseases.	TROOPS ON FIELD SERVICE.			
	European troops 3,864.		Native troops 11,141.	
	Admissions.	Deaths.	Admissions.	Deaths.
Deformities of great toe	3	...	...	...
Inflammation of the connective tissue	41	...	52	...
Abscess of the „ „	49	1	155	...
Urticaria	1	...	1	...
Prickly heat	2	...	...	...
Eczema	18	...	28	...
Impetigo	...	...	1	...
Prurigo	...	...	1	...
Herpes	1	...	8	...
Zona	1	...	2	...
Acne	1	...	...	...
Sycosis	...	...	2	...
Ulcer	41	...	189	...
Boil	53	...	97	...
Carbuncle	1	...	1	...
Whitlow	19	...	22	...
Onychia	15	...	...	...
Corn	1	...	...	...
Accidental:—				
Heat-stroke	51	...	...	...
Sun-stroke	8	3	5	16
Heat-apoplexy	55	8	11	1
Suffocation from submersion	...	4	...	2
„ from plugging of air-passages with foreign substances	1	1	...	...
Burns and scalds	8	...	24	...
Abrasions	59	...	99	...
Contusions	32	...	148	1
Wounds	38	...	130	...
Gunshot wounds	50	...	4	...
Sprains and strains	77	...	71	...
Fractures	4	...	45	...
Dislocations	2	...	4	...
Concussion of the brain	...	...	7	...
Compression „ „	...	...	...	1
Poisoned wound, by stinging insect	...	...	1	...
„ „ by vegetable substances	...	...	2	...
Homicidal:—				
Gunshot wound	...	1	1	1
Murdered	...	...	...	1
Suicidal:—				
Gunshot wound	...	1	...	1
In action:—				
Gunshot wounds	321	109	679	83
Sword and bayonet wounds	2	4	...	...
Killed	...	...	...	151
Missing	...	4	...	...
Not defined	...	...	123	...
No appreciable disease	7	...	...	...
Not yet diagnosed	65	...	1	...
Grand total	9,661	354	*13,836	449

* The figures having been derived from the general returns do not agree with those in tables No. XXIX.

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ANNUAL REPORT

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1897,

WITH

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