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ANNUAL REPORT

OF THE

SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA,

1901,

WITH

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

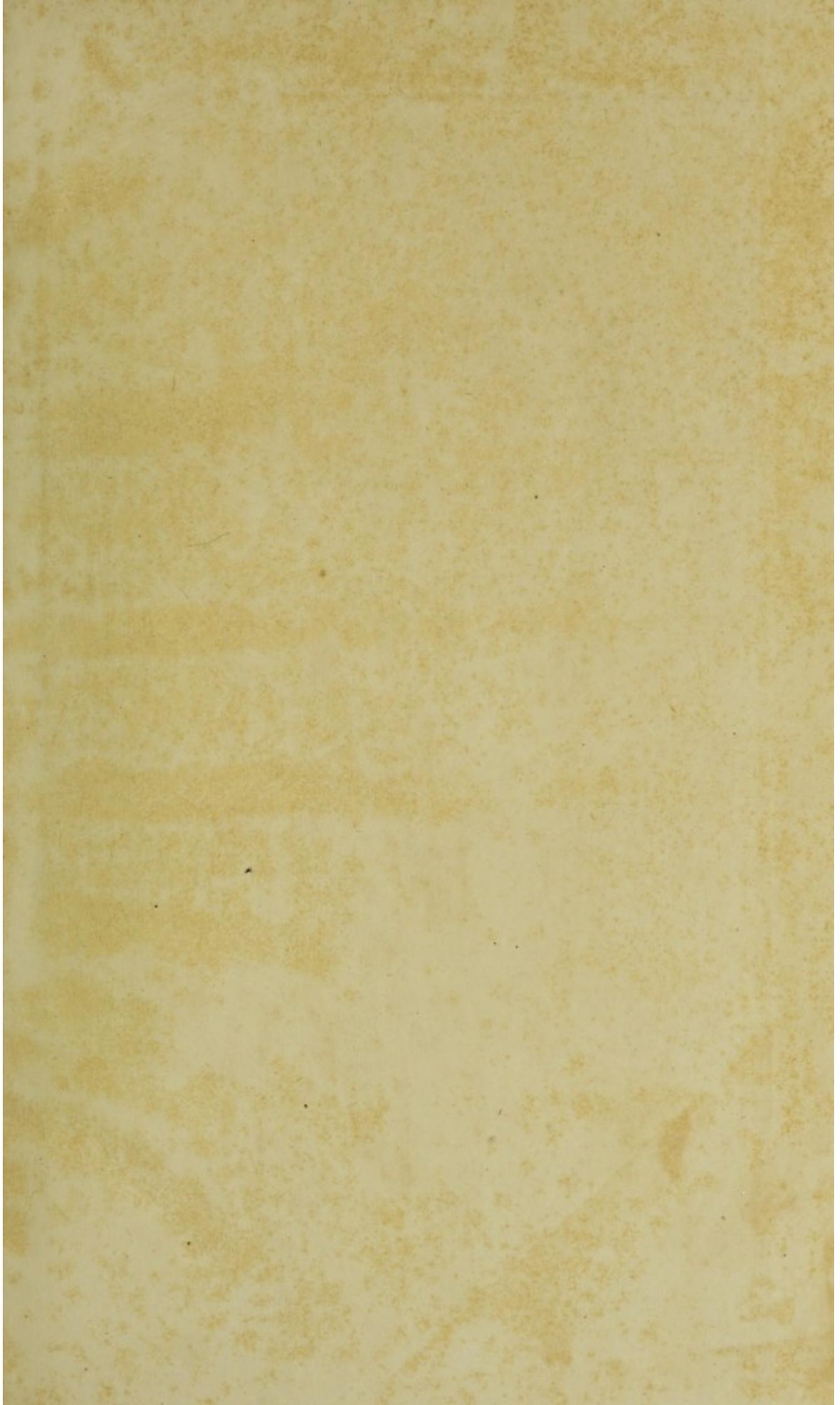


CALCUTTA:

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1902.



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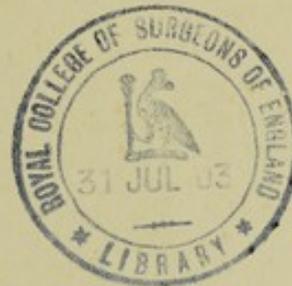
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ANNUAL REPORT

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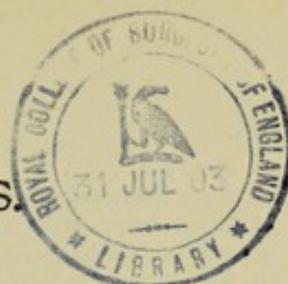


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Map of INDIA

TO ILLUSTRATE
THE ANNUAL REPORT OF THE SANITARY COMMISSIONER
WITH THE GOVERNMENT OF INDIA FOR 1901.

showing
THE VARIATION OF POPULATION ACCORDING TO THE
CENSUS OF 1901 AS COMPARED WITH THE
CENSUS OF 1891.

Scale 1 inch = 100 Miles



REFERENCES.

- Civil Provinces
- Districts
- Main Roads
- Railways

- Indicates increase under 5 per 100
- Do. do. about 5 per 100
- Do. decrease under 5 per 100
- Do. do. about 5 per 100

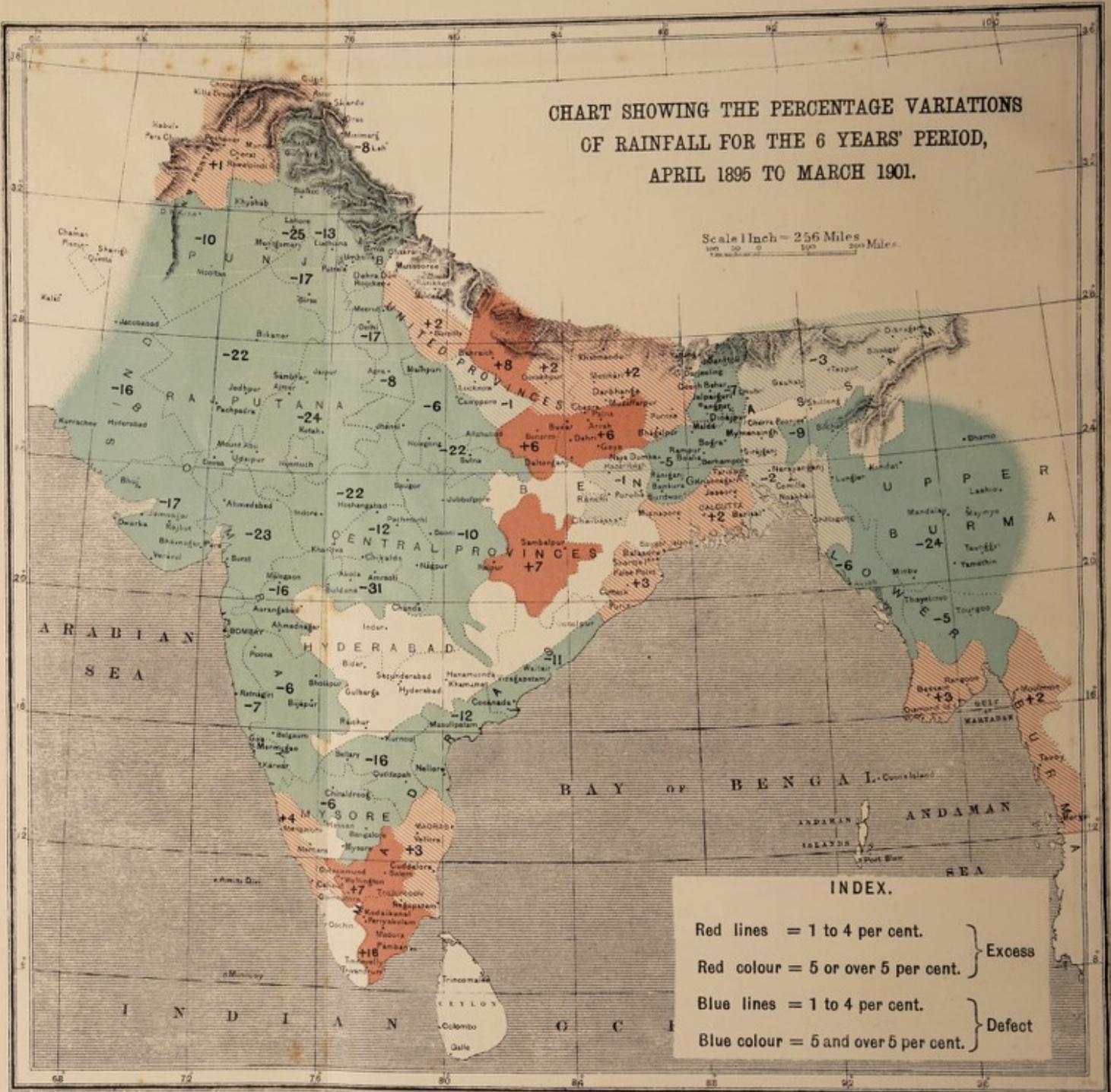
GRANT REPORTING THE REVENUE OF VARIOUS
OF SALES IN THE YEAR 1850
ALSO THE YEAR 1851



TABLE
Showing the amount of
the duties on the
importation of
the various articles
of the tariff for the
years 1850 and 1851

Year	Amount	Percentage
1850		
1851		

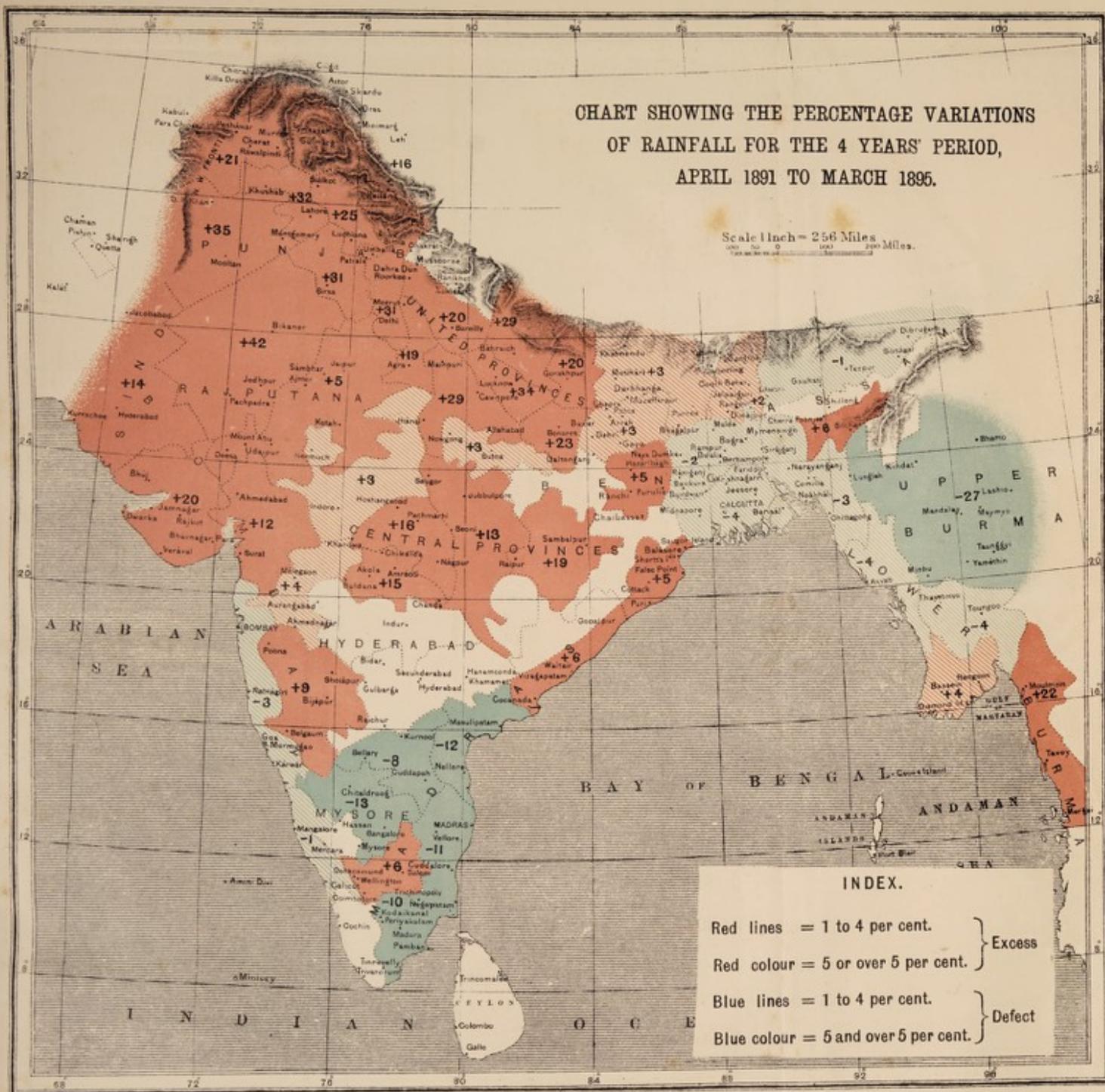
CHART SHOWING THE PERCENTAGE VARIATIONS OF RAINFALL FOR THE 6 YEARS' PERIOD, APRIL 1895 TO MARCH 1901.



Tenasserim	South Bihar	West Punjab	Sind
Lower Burma Deltaic	North Bihar	Malabar	Central India, East
Central do.	United Provinces, East	Madras, South Central	Do. do.
Upper do.	South Oudh	Mysore	Rajputana East, Central India
Arakan	North do.	Konkan	West
East Bengal	United Provinces, Central	Bombay Deccan	West Rajputana
Assam, Surma	Do., West	Khandesh	Madras, East Coast, North
Do., Brahmaputra	Do., Submontane	Berar	Do., Central
Deltaic Bengal	South Punjab	Central Provinces, West	Do., East Coast, Central
Central do.	Central do.	Do., Central	Do., do., South
North do.	Punjab, Submontane	Do., East	
Orissa	Do., Hills	Gujarat	
Chota Nagpur	North Punjab	Kathiawar	

CHART SHOWING THE PERCENTAGE VARIATIONS
OF RAINFALL FOR THE 4 YEARS' PERIOD,
APRIL 1891 TO MARCH 1895.

Scale 1 Inch = 256 Miles
100 0 100 200 Miles.



INDEX.

- Red lines = 1 to 4 per cent. } Excess
- Red colour = 5 or over 5 per cent. }
- Blue lines = 1 to 4 per cent. } Defect
- Blue colour = 5 and over 5 per cent. }

Tenasserim	South Bihar	West Punjab	Sind
Lower Burma Deltaic	North Bihar	Malabar	Central India, East
Central do.	United Provinces, East	Madras, South Central	Do. do.
Upper do.	South Oudh	Mysore	Rajputana East, Central India
Arakan	North do.	Konkan	West
East Bengal	United Provinces, Central	Bombay Deccan	West Rajputana
Assam, Surma	Do., West	Khandesh	Madras, East Coast, North
Do., Brahmaputra	Do., Submontane	Berar	Do., Central
Deltaic Bengal	South Punjab	Central Provinces, West	Do., East Coast, Central
Central do.	Central do.	Do., Central	Do., do., South
North do.	Punjab, Submontane	Do., East	
Orissa	Do., Hills	Gujarat	
Chota Nagpur	North Punjab	Kathiawar	

CHART SHOWING

THE SEASON'S REPORT FOR THE YEAR

1881

SECTION I

MATHEMATICS OF THE YEAR



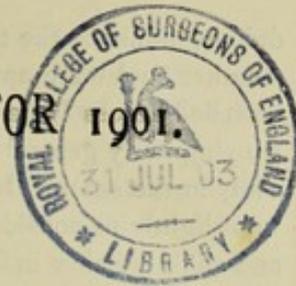
1881
 1882
 1883
 1884

The following table shows the results of the various experiments conducted during the year, and the progress made in the study of the subject. The results are given in the following table, and the progress made in the study of the subject is given in the following table.

Year	Results	Progress
1881		
1882		
1883		
1884		

The following table shows the results of the various experiments conducted during the year, and the progress made in the study of the subject. The results are given in the following table, and the progress made in the study of the subject is given in the following table.

ANNUAL SANITARY REPORT FOR 1901.



SECTION I.

METEOROLOGY OF THE YEAR.

1. The following report on the meteorology of India has been kindly furnished by the Meteorological Department of the Government of India;—

Summary of the Meteorological conditions of the year.

A series of depressions entered North-West India and advanced eastward across Northern India during the month of January, and temperature changes were consequently frequent during that month. The warm and cool waves usually preceding and following depressions of the winter type were, however, less well-marked than is the case when the depressions are separated by longer intervals of time. The mean maximum temperature of the whole month was in moderate to large defect over the whole of Northern India and the north of the Peninsula, but the variations from the normal were more irregular and less strongly marked in minimum temperature. Both maximum and minimum temperatures were in slight to large excess over the southern half of the Peninsula. The conditions in February closely resembled those of January. The temperature changes were again frequent, due to the same cause. The mean minimum temperature of the month was again in moderate to large excess over the southern half of the Peninsula, but the excess in maximum temperature shown over the same area in January had disappeared and the mean maximum temperature of the month was normal in that region, while it was in slight to considerable defect in the north of the Peninsula and the whole of Northern India, except Assam and parts of Bengal. The minimum temperature of the month was in moderate to considerable defect in the West Punjab, Sind and Gujarat, in moderate excess in North-East India and in moderate to large excess in Bengal. An interesting feature in the temperature conditions of February was the unusually low-temperature experienced in Gujarat, shown in both maximum and minimum temperatures. Two well-marked cool waves crossed India during the month of March, the first from the 7th to the 12th and the second from the 23rd to the 30th. The principal abnormal features in the mean temperature of the month were an excess of temperature in the West and Central Punjab, Sind and Gujarat and a defect in the east of the Gangetic Plain, Chota Nagpur, the Central Provinces and the south-east of the Peninsula. The variations from the normal were shown chiefly in maximum temperature in the areas of defective temperature and in Sind and Gujarat, and in minimum temperature in the West and Central Punjab. Maximum temperature was in moderate to large excess in North-West Burma and the adjacent districts of Assam and Bengal. In April temperature was below the normal in Baluchistan and a considerable part of North-West India; especially in Baluchistan, the Punjab and the west of the United Provinces, and the defect was shown in both maximum and minimum temperatures. The variations from the normal on the mean of the whole month were comparatively small and unimportant in other parts of the country. On the 11th a cool wave appeared in the extreme north-west, but it

did not influence the temperature outside of the Punjab to any important extent. Another cool wave appeared over Baluchistan and the Punjab on the 17th and travelled across India as far as Bengal. A marked fall of temperature accompanying fairly general rain occurred on the 26th to 28th in the Peninsula, especially in the south. In May the mean maximum temperature for the whole month was slightly to considerably below the normal over the greater part of the Punjab and slightly below in parts of the interior of the Peninsula. It was slightly to moderately above the normal in Sind, the South-West Punjab, and the Central India Plateau. Minimum temperature was also in excess over the same region and in defect in parts of the Punjab and of the interior of the Peninsula. From the 5th to the 10th minimum temperatures from 10° to 23° below the normal were recorded in Upper India. Maximum temperature was still more largely below the normal during this period, and at several stations on the 5th to the 7th was from 20° to $27\frac{1}{2}^{\circ}$ below the normal. The highest maximum temperature recorded during the month, was 123° at Jacobabad on the 30th, which has only twice previously been equalled in the month of May. In the month of June temperature was in very general excess, due chiefly to the failure of the monsoon to extend into the interior districts. Both maximum and minimum temperatures were in moderate to large excess over the central parts of the country, the excess in the former being most strongly marked in the Gangetic Plain, the eastern states of Central India and Chota Nagpur. The highest maximum temperatures recorded this month in the divisions of Bengal, Bihar, Chota Nagpur and the United Provinces were the highest on record for June. Both maximum and minimum temperatures were below the normal on the mean of the month in Baluchistan, Afghanistan and the Kashmir mountain districts, probably due to late snow on the higher ranges of the Himalayas. Rain was again in general defect in July and temperature was again in moderate to large excess over the greater part of the country, the area of largest excess, however, being this month shown further west, chiefly over the Central India Plateau and the Gangetic plain, where both maximum and minimum temperatures were in moderate to large excess. On the 6th Jacobabad reported a maximum temperature of 126° ,—a temperature which has been recorded only once during the past 25 years, *viz.*, on the 13th June 1897. In August rainfall was light in North-West India and the south of the Peninsula and was fairly continuous elsewhere, especially in the central parts of the country. The variations from the normal of temperature were closely related to the distribution of rainfall. Both maximum and minimum temperatures were in slight to considerable excess over the greater part of North-West India and to a smaller extent in the south of the Peninsula; and maximum temperature was below normal in the central parts of the country. Rainfall was lighter than usual in September and temperature was in general excess, the excess being shown chiefly in maximum temperature. During the latter half of the month the excess in maximum temperature was considerable to very large in Rajputana, Gujarat, Khandesh and the Deccan. Unusually high temperature continued in October, November and December, and the excess was shown in both maximum and minimum temperatures over the greater part of the country, especially in North-West India. Unusually fine weather prevailed in November and December in Persia and Baluchistan, and no depressions entered India from the west during those months.

The mean temperature for the whole year was in excess in nearly every division. The variation from the normal was less than 0.5° and hence temperature

was practically normal in the Himalayas, the Gangetic Plain, Orissa, the Central Provinces (South) and Berar. The largest excess was shown in Eastern Rajputana and Central India (2°) and the Nerbudda Valley ($1^{\circ}9'$). For the whole of India the excess averaged 0.6° .

Pressure varied by only small amounts from the normal during the greater part of the year. In March and September it was, however, in slight to moderate excess in all divisions, the excess for the whole of India averaging about $.045$ inch during these two months. Pressure was in slight defect in August and October. For the whole year the variation from the normal was only $+ .005$ inch.

Relative humidity was on the mean of the whole year and for the whole of India slightly below normal. It was in excess in January and February and in general defect from June to the end of the year. August was the only month during this period that showed a slight excess. The largest defect during the monsoon period occurred in Eastern Rajputana, Central India, the Nerbudda Valley and Chota Nagpur; and during November and December in the Nerbudda Valley, the Central Provinces (South) and Berar. The excess in January and February was most marked in Chota Nagpur, East Rajputana, Central India, the Gangetic Plain and the Punjab Plains.

Cloud was in moderate excess on the mean of the whole country in January, February and April and in moderate defect in June and September. It was considerably below the normal in North-West and Central India during the months of June and September.

The rainfall of the whole year was in defect in all divisions except Lower Bengal, Malabar and Ghats, the Carnatic, Pegu and Tenasserim. On the mean of the whole area the annual rainfall was 3.92 inches in defect, or excluding Burma, 4.13 inches. In 1900 the defect for India, excluding Burma, was 0.57 inch and in 1899 11.14 inches. The largest defect in the annual rainfall of 1901 occurred in Gujarat (17.82 inches) and East Rajputana (12.24 inches).

The rainfall of January and February was in general excess except in East Bengal, Assam, Gujarat, Sind and Cutch. During the hot weather months less rain than usual was received in nearly all divisions, the defect being most marked in East Bengal, Assam and the Eastern Himalayas. Rainfall was heavier than usual in a few divisions, the excess being largest in the North Deccan and the Nilgiris. During the monsoon period of June to October rainfall was again in general defect, the only parts of the country where rain in excess of the normal was received being Tenasserim, Arakan, Assam and East Bengal, and the Nilgiris. The north-east monsoon rains during November and December in South India were generally heavier than usual, the largest excess occurring in Malabar and Ghats. Rainfall during these two months was also heavier than usual in Assam and East Bengal, Lower Bengal, Eastern Himalayas, Orissa and the Northern Circars.

SECTION II.

EUROPEAN ARMY OF INDIA.

2. The health of the European army of India was better than in the previous year, though the invaliding ratio was greater. India. Appendices A and B. Tables I, LIII, and III.

The chief causes of admission were ague and venereal disease. Among the diseases with increased admission rates were influenza and respiratory diseases. On the other hand the admission rates from cholera, smallpox, remittent fever, enteric fever, ague, dysentery, and venereal disease were lessened. Ague and venereal disease caused respectively 27 and 25 per cent. of the total sickness.

The chief causes of death were enteric fever and abscess of the liver. Among the diseases with increased mortality were circulatory diseases, respiratory diseases, and dysentery. On the other hand the mortality from cholera, diarrhoea, ague, enteric fever, remittent fever, hepatic abscess, and tubercle of the lungs was lessened. Enteric fever caused 27 per cent. of the total deaths, and hepatic abscess 11 per cent.

The chief causes of invaliding were, in order, ague, secondary syphilis, debility.

The chief cause of admission in the China Expeditionary Force was venereal disease, of which 56 per cent. was gonorrhoea.

3. Madras was the most unhealthy of the four commands, Bombay coming closely next, and both being less unhealthy than in 1900. Bengal had the highest mortality from cholera, smallpox, remittent fever, dysentery, diarrhoea, and hepatic abscess; Punjab the highest from enteric fever, ague, heatstroke, tubercle of the lungs, and pneumonia. The highest death-rates among stations of over 100 strength were those of Barrackpore, Deesa, Ahmedabad, Murree, Naini Tal, and Poonamallee, the three last being depôts for men sick or convalescent. All had higher death ratios than in the previous year. Dysentery was the chief factor at Barrackpore, and fevers at Deesa. The highest death-rates in stations of over 1,000 strength were at Ferozepore and Umballa, enteric fever being the chief cause in both cases. The ratio of Ferozepore was somewhat lower than in 1900, that of Umballa considerably higher. Commands and Stations. Appendix A. Tables I, III, IV, and V.

4. The most unhealthy geographical groups in 1901 were Burma Inland and Bengal-Orissa, the latter being also more unhealthy than in 1900. Burma coast had the highest admission ratios from influenza and venereal diseases; Burma Inland the highest from ague and pneumonia; Bengal-Orissa the highest from tubercle of the lungs, dysentery, and abscess of the liver; Indus Valley the highest from smallpox; Central India the highest from enteric fever, remittent fever, and diarrhoea; Southern India the highest from simple continued fever; and the Hill Stations the lowest from ague and venereal disease. The only point in which the decennial relations, described in last report, correspond with the above is the supreme height of the dysentery admission ratio in Bengal-Orissa. Geographical Groups. Appendix B. Table II.

5. The absolute and proportional amounts of influenza rose greatly. The admissions began to rise in February, reached their maximum in May, and rose again in December. Influenza. (†) Appendices B and J. Table VI.

For the 12 years that the disease has been epidemically present in India the maximum month is April, and the minimum August. As compared with 1900, Group VII was the only fresh one affected; Group II escaped in both years; while in both all the other groups recorded admissions. Thirty-three stations returned cases, against twenty-two. The highest numbers were at Rangoon, Nowshera, and Kuldunnah. The disease was generally mild in type, and only one death was returned. It is said to have been severe at Roorkee, and to have caused much debility at Kuldunnah. The researches of Onorato on the resistance of the influenza bacillus to physical and chemical attacks, show, among other things, that under laboratory conditions it is very susceptible to drying and to the action of carbolic acid and some other common disinfectants.

6. The amount and proportion of cholera was much less than in the previous year, the admissions having fallen from 107 to 12, and at no station were there more than 3 cases. It is generally mentioned that the disease was present in the neighbouring city or bazaar, but the exact origin does not seem to have been traced in any case. At Poona the two men first attacked were in Ward 1 of the hospital, and the third was attending on the first after he had been removed to another ward.

7. The admission rate from smallpox was only a half of what it had been in 1900, but the death-rate remained the same; the admissions and deaths being 20 and 3 against 36 and 3.

Jubbulpore had 3 admissions and 2 deaths, and no station had more. Most of the cases were mild in men who had been vaccinated and revaccinated, or vaccinated and unsuccessfully or inefficiently revaccinated. A confluent form of the disease occurred at Rangoon in the person of a man who had not been vaccinated for 11 years and had not satisfactory marks of protection. At Jubbulpore the men were on duties which brought them into contact with natives; and the disease was generally present in the city or bazaar.

8. Ague gave rise to nearly 27 per cent. of the admissions from all causes.

Ague, remittent fever, simple continued fever, Malta fever.^(*)
Appendix B. Tables X, XI, IX, and LIII.

Both the admission and the death-rates were lowered. The most malarious month for India was October, but for Burma Inland, which was the most malarious group, it was November. The most malarious stations were Fort Dufferin, Fort Lahore, and Meean Meer; and then Nasirabad, Ferozepore, and Delhi. The fever at Fort Dufferin is said to have been milder than in 1900, and Mandalay Hill continued to be more healthy than the fort. The malariousness of Fort Lahore is attributed to the lowlying marshy ground on the bank of the river near the fort. Men from Barrackpore and Delhi are said to have increased the ague admissions at Nasirabad; but in September "anopheles" was found in swimming baths, garden tanks, gumlahs, drains, pools, ghurrahs. Measures were taken against the anopheles, and quinine was issued prophylactically, but the effect was "not very apparent." Much of the sickness at Ferozepore is said to have been connected with the previous year's outbreak. Fever at Delhi was most abundant at the season when pools had formed in the river bed, and "anopheles" was frequently found. The use of kerosene is said to have produced no appreciable difference; but, as far as the report shows, it does not seem to have been carried out with much thoroughness. Meean Meer was examined by the Royal Society's Malaria Commission in December, who found that the bearer of the infection was the *Anopheles culifacies* bred in the numerous

irrigation channels, and made suitable recommendations. Many admissions were recurrences, and regiments coming from unhealthy stations raised the numbers in some stations where the disease was not naturally very prevalent. At Peshawar the ague was ascribed to inordinate irrigation; while at Kirkee the catchpits and unlined drains near barracks were considered to have been more to blame than the irrigation. At Rawalpindi and Dinapore there were plenty of anopheles breeding pools; and at Roorkee these mosquitoes were found to be breeding in the fire-tanks. No anopheles could be found in No. 2 district at Mhow, though it was present in a village half a mile away; and the artillery at Fort Syriam suffered much more than the troops in Rangoon itself. At Colaba, where the anopheles is said to be unknown, the garrison artillery had no fever; but they suffered after going to Middle Ground Fort, where anopheles is frequently found. There is said to have been no local ague at Mount Abu, the rainfall having been 47 inches less; and anopheles, so common in the previous year, was hardly to be seen. The diminution at Aden was ascribed to the scanty rainfall, to the non-occupation of the isthmus position, and to the greater attention paid to the destruction of anopheles. At Mallapuram patients had prolonged quinine treatment, and while in hospital used mosquito curtains, hollows were drained and levelled, waste or stagnant water was not allowed to remain in the barracks, and some pools were treated with kerosene. "Anopheles" larvæ were found at Neemuch in the puddles and hoof marks near the wells, in the tatty and garden tanks, in catchpits and drains, and in the edge water of a nullah, all near the hospital or barracks; and measures were taken accordingly. Though common in the previous year, anopheles was rare in 1901; and it was supposed that the larvæ might have been washed away by the floods in 1900. In Amritsar "anopheles" was plentiful, but it was difficult to find its breeding places. Pools were drained and filled in at Deesa, covers were provided for the water chatties, and disused wells were kerosened. The stagnant pools of Sialkot were attended to: one near the military prison was levelled, "and ague cases appear to be now less frequent." At Nowgong great care was given to filling up stagnant pools and holes near barracks, and to removing tins, etc., likely to harbour the larvæ; and it is said that there are now fewer mosquitoes and less malarial fever among the European troops. Though the prophylactic issue of quinine was probably universal, or nearly so, only sixteen reports mention it. Seven say that the effect was good; one that the disease was made milder but not prevented; one that ague held off as long as the quinine was given, but began to occur again within a week after it was stopped; two that there was no appreciable effect; and one that in spite of it there was more ague than in the previous year. Probably, if medical officers were keen about the matter, they would say more about it in their reports.

There was also a great decrease in remittent fever. The maximum month, like that of ague, was October; but there was another maximum in June, to which ague had nothing corresponding. The highest admission ratios were at Mhow, Mount Abu, and Shwebo.

The admission ratio from simple continued fever was the same as in the preceding year. The most frequent causes assigned for the attacks were heat, work in heat, exposure to the sun, errors of diet, chills. Some of the cases are said to have been possibly enteric fever, while others were distinguished from that disease only by the negative result of Widal's reaction or by the sudden permanent fall of the temperature. Two of the cases were thought to have been possibly Malta fever, and in one station dengue was suggested. Benares returned neither simple continued nor enteric fever.

Three cases of Malta fever were returned from Meerut, and one each from Subathu and Poona; the diagnosis in most, if not in all, being confirmed by the serum reaction. Malta fever in natives of India is referred to in Sections III, IV, and VI. Six cases of accidental infection through minimal inoculation have lately been published by Wright and Windsor as having occurred at Netley; and they notice also two other similar cases, occurring respectively at Haslar and in the Philippine Islands.

9. The fact of the frequent connexion between the ingestion of drinking water and enteric fever is acknowledged, and appears

Enteric fever. Water. Bacillary
Diagnosis. Milk.⁽³⁾

to be established; but the exact relation of the water to the morbid agent is still involved in obscurity.

From an examination of the records of 638 epidemics and 12 single cases, contained in the literature of 14 countries of the world, Schüder found that 70 per cent. had been referred to water, only 17 per cent. to milk, and the still lower percentages of from 0.2 to 3.5 to other causes; and concludes that the cause of the disease must be combated in the first place in water, and that when that has been done, the greater part will have been done. Corfield, too, in his Milroy lectures, has collected from all parts the powerful evidence which points to water as the chief vehicle of the infection. Yet it has been found more difficult than ever to recover the specific microbe from suspected water, the progress of knowledge having led investigators to be less easily satisfied in the matter of identification. In fact, Sims Woodhead, agreeing with others as to the difficulty of finding the bacillus in water, states that he has never succeeded in isolating it therefrom, except when he had previously placed it there himself. It has been pointed out that unless the specific pollution is continuous, it is extremely unlikely that enteric bacilli will be detected in a water, if more than a week has elapsed since the actual pollution occurred. As the incubation time of enteric fever is usually over a week, the bacillus will have vanished by the time suspicion is thrown upon the water by the occurrence of cases. In all cases it is necessary to examine a considerable quantity of the water, and that the examination should be systematic and periodic, "the variations in the composition and flora being the surest signposts of danger." Another explanation which has been thought of is that the enteric bacillus may change its typical characters when living in water. Hence the attention which is directed to the enteric-like bacilli of water, as distinguished from those of more frankly colonic character. Thus Vaughan believes that a water containing the colon bacillus alone does not cause enteric fever, and that the more enteric-like the germ is, the more likely is the water containing it to cause enteric fever; and he has no hesitation in condemning waters which contain enteric-like bacilli. He is one of those who have never succeeded in finding in any sample of water a typical enteric bacillus, and who do not believe that it preserves its typical characters for any length of time when growing in water. Some observers from actual practice, have reported that it is not safe to trust alone to the method of von Drigalski and Conradi, which consists of cultural separation in a special medium, and then confirmation by a highly diluted enteric serum; but that the colonies apparently identified as enteric must be submitted in addition to all the usual tests. It is frequent in India, as elsewhere to find in water bacilli which while giving all the cultural reactions of the enteric bacillus, refuse to be agglutinated by enteric serum. With regard to such Bancel suggests that in order to be able to pronounce on their nature the observer should make a series of cultures, and see whether they do not sooner or later

become agglutinable; and points out that enteric bacilli from blood, pus, &c., are only slightly agglutinable, but become more so by cultivation on artificial media. From his suggestion that the agglutinability may vary inversely to the virulence it follows that such an enteric-like bacillus of water, which possesses all the classical characters of the enteric bacillus except its agglutinability, may in reality be the true bacillus in its most virulent form. On the other hand, it must be remembered that, according to present knowledge, clinical enteric fever may be caused by more than one bacillus, that more than one disease is included under the clinical name "enteric fever", a fact which explains some of the clinical failures of Widal's test. And Sion and Negel have actually described an outbreak of waterborne enteric-like fever caused by a non-Eberthian bacillus. Neumann enunciates a peculiar hypothesis, that drinking water does not convey the bacillus, but certain fluid bodies which enable the enteric-like bacilli, everywhere present, sometimes inside the body as well as outside, to become true enteric bacilli. Sims Woodhead believes that with our present methods more is to be gained by a general bacteriological examination than by an examination for any special species, and lays far more stress on the departure of water from its normal bacteriological standard than on the appearance of any special set of organisms, though the appearance of any fresh set of organisms is, of course, a definite indication that the water is departing from its normal bacteriological standard. After all, even if the enteric bacillus itself cannot be found in a suspected water, it is sufficient, as Houston among others points out, to show that microbes indubitably of intestinal origin are present in a water, to condemn it; because they are apt, of course, to be accompanied by pathogenic germs. Here again doubt has arisen as to which germs are of indubitable intestinal origin. Some like Chick have minimized the distribution of the *Bacillus coli*, for example, while others find it everywhere; and this disagreement seems to depend upon a difference of opinion as to what is and what is not a *Bacillus coli communis*. There is, however, a general agreement that the number and not the mere presence is to be regarded, that the source which supplies the colon bacillus to the water should be searched for, and that special suspicion should attach to a varying content. Pakes stated in 1900 that water which contained *B. coli* in 20 c. c. or less should be condemned, that if the *B. coli* were only present in from 50 to 100 c. c. the water should be looked upon as slightly suspicious, and that if that bacillus were only present in greater quantities than 100 c. c. the water was probably safe. Horrocks considers that water which contains *B. coli* so sparsely that 200 c. c. have to be tested to find it, is probably polluted with sewage, but the contamination is not of recent date. Houston finds that streptococci are absent from 10 c. c. (or more); *B. coli* from 1,10, it may be 100 c. c. (or more); and *B. enteritidis sporogenes* from 100 to 500 c. c. (or more) of pure waters: that is, these microbes are altogether absent or relatively so from pure waters; that the presence of streptococci is to be thought of as indicating extremely recent, and of *B. coli* less recent but still not remote pollution of animal sort, but that the presence of *B. enteritidis sporogenes* cannot be considered to afford evidence of pollution bearing a necessary relation to the recent evacuations of animals; that the presence of streptococci in any number in a water-supply points not only to recent animal pollution, but also implies that the antecedent condition—conditions intervening between the period of pollution of the water and the time of collection of the sample—could hardly have been of so unfavourable a character

as to destroy the vitality of seemingly more hardy microbes—for example, the enteric bacillus, though quite the same cannot be said for the *B. coli*, since *B. coli* is a more hardy germ than *B. typhosus*. Firth is of opinion that the presence together of streptococcus and *B. coli* is an indication that the water has recently been contaminated by sewage and is unfit for use. Chick's experiments led her to believe that the colon bacillus is much less ubiquitous than has been supposed and that its presence indicates recent pollution. On the other hand, Papasotirin who has found *B. coli* in dough and in various unground cereals and pulses, considers that the presence of some colon bacilli in water is of no significance, but that a great abundance makes one think of contamination by fæcal matter; though it may also be connected with the putrefaction of vegetable matter. Irons cautions against trusting to neutral red for the detection of the colon bacillus in water, since the reaction is given under the conditions of the test by a number of other water organisms which no classification however liberal would place in the colon group. The propriety of judging different kinds of water by different standards is insisted on by Savage, allowance being made for an upland surface water, for example, as compared with a spring water. Waters which show no colon bacilli in 50 c. c. are, according to him, of a high degree of purity. Some, like Meusburger and Rambousek, are content to have as sole criterion the colon bacillus as such; but Horrocks, as quoted in last report, has endeavoured to distinguish colon bacilli derived from a case of enteric fever from colon bacilli of ordinary provenance. The technique employed by Horrocks is, however, considered by C. Fränkel to be not quite beyond reproach. In the United States, in river water considered on inspection to be unpolluted, Smith and Brown found the numbers of colon bacilli to vary between 9 and 5 per c. c.; and Jordan remarks that as there are no methods in common use that are universally applicable to their direct detection, the fate of typhoid germs introduced into a stream or lake must be determined by inference; and that the best index we can secure at present for gauging the probable continuance of vitality of the enteric bacillus in running water is the information derived from the fate of the colon bacillus. Aldridge, after remarking that the vitality of *B. typhosus* in water is not great, and that when enteric fever is almost continuously present there must be repeated infections from fæces or urine, which can hardly be conceived to affect well-protected pipe supplies; goes on to say that in combating enteric fever in tropical places it is not sufficient to obtain a water pure at its source, nor even to purify a doubtful water, but that the chances of its contamination are as great—in many cases greater—as at its source. Calk found that the enteric fever rates in towns supplied with filtered river water were much lower, generally speaking, than those in towns supplied from artesian wells and mountains. The somewhat similar results of Saltet in Holland are discussed by Corfield in his Milroy lectures. In the sanitary history of cities, says Osler, it has been amply demonstrated that an abundant and good water-supply, though of the first importance, is not enough to reduce the death-rate from typhoid fever to a minimum. He gives instances where the high death-rate from the fever persisted after the introduction of a good water-supply until a sewage system had also been introduced. In America, as in India, instances have been noticed where troops using the same water-supply as the civilian population suffered from enteric fever, while the latter escaped entirely or almost entirely, Schüder has shown that the bromine process of Schumburg, so much praised at

one time, is practically useless for the sterilization of water, as regards the germs of cholera and enteric fever; and Engels from his experiments concludes that of all the chemical means of water sterilization hitherto invented, with the possible exception of ozone, not one is really trustworthy. The practical use of ozone in the treatment of drinking water has been studied by Ohlmüller and Prall, who found that it gave a better general result than sand filtration, and that the cholera and enteric fever bacteria were destroyed. Schüder and Proskauer in a still more recent research formed a favourable opinion of ozone, but pointed out imperfections in the methods of Ohlmüller and Prall. The danger of trusting to aerated waters as safe, especially in times of epidemic enteric fever, has been emphasized by Chantemesse and others, as the bacilli retain their vitality in such waters for days and even weeks. A résumé of knowledge as to outbreaks caused by milk, and of the behaviour of the enteric bacillus in milk, has lately been given by Corfield. Osler remarks that one or two typhoid bacilli in a glass of water may be, probably often are, taken with impunity by an individual not specially susceptible, but a few in water used to rinse a milk can or jug would find in the milk such a suitable medium for growth that in twenty-four hours the food would be highly infective. So also Fulton shows that milk infection means large dosage and greater percentage of attacks. Schüder speaks of milk as a very dangerous spreader of the infection, because it is a good nutrient medium for the bacillus, and because infected milk is apt to be delivered to a large number of households. It is stated that enteric bacilli retain their vitality in boiled milk for as long as three months or more.

No single fact, says Osler, has been more clearly brought out than the intimate association between sewage-polluted soil and typhoid fever: wholesome healthy water is not alone sufficient to abolish the disease; but healing of the sickness in the soil, purifying it by proper drainage, is at once followed by a remarkable fall in the death-rate from typhoid fever: this has been strikingly shown in many cities: the local conditions permitting the disease to be endemic throughout the year relate unquestionably to the persistent pollution of the soil: the presence of typhoid fever in a city means bad drainage, or polluted water-supply, or both. With regard to the cases from time to time reported of the occurrence of outbreaks of the fever on the so-called virgin soil of remote uninhabited places, Munson suspects that the soldiers carried the infection with them, in their own bodies (excreting it in their urine), on blankets, etc. Some of the most important instances of the connexion of enteric fever with soil infection have been recently collected by Corfield; and Schüder in treating of the same subject, points out the danger to soldiers and workmen, who have to clean their own boots and often eat without washing their hands, of the infected earth which adheres to the boots. The general result of Sidney Martin's late researches was to show that the enteric bacillus has commonly only a short existence in the soil, and that it is destroyed by the products of the putrefactive bacteria which exist in most cultivated soils. As Houston says, the general tendency is for the more hardy soil bacteria to oust the sewage microbes in the struggle for existence: *B. coli* and allied forms introduced with the sewage become greatly reduced in numbers, and their presence in a soil in any considerable amount is taken as suggesting pollution of comparatively recent date, the presence of

streptococci in soil is another good indication of sewage contamination, and, as these organisms disappear very rapidly, of its extremely recent occurrence. E. Pfuhl found the enteric bacillus to survive close under the surface of damp garden earth for 88 days, in loose pretty dry sand for 28 days. The observations on this point of many observers are summarized by Gotschlich. The experiments of Firth and Horrocks showed them among other things that there is no evidence to prove that the enteric bacillus when placed in soil displays any disposition or ability to increase in numbers or grow upwards, downwards, or laterally; that it is able to assume a vegetative existence in ordinary and sewage polluted soil and survive therein for varying periods amounting in some cases to as much as 74 days; and that an excess or deficiency of moisture in soils appears to be the dominant factor affecting the chances of survival of the enteric bacillus, or at least the possibility of recovering it. The moral which V. Poore draws from their experiments is that care and attention make the practice of burying excreta in the earth practically safe, the cultivation and cropping of the land being duly regarded as part of the process. Munson thinks the dry earth system likely to aid in the spread of enteric fever; and that, though the bacillus is destroyed by dessication in a short time, it may long retain its vitality in relatively dry material, and find in dust and wind an excellent vehicle for its diffusion. To show that some of the dust carried by the wind actually does come from the latrines, Powell records having had to abandon dinner on the veld, owing to a dust spout, which had first passed over the trenches, covering the food with dust and toilet paper; and remarks that many a time food must have been eaten covered with dust from the same quarter, when there was no telltale paper to betray its origin. So Osler mentions the danger of dust sweepings from unwatered streets reaching uncovered milkpans. Munson mentions that Tryde and Salomonsen found enteric bacilli on the floors of a barrack in Copenhagen, Uptadel at Augsburg, Birch-Hirschfeld at Leipsig, Chour at Jitomir. On the other hand, the opinion given in Nothnagel's Encyclopedia is that the dissemination of the enteric bacillus in the dry state, attached to particles of dust, through the air is possible, but not common. Firth and Horrocks found that from an ordinary soil allowed after inoculation with the bacillus to become so dry as to be readily blown about as dust, the enteric bacillus can be recovered up to and on the twenty-fifth day; and that enteric infective material can be readily translated from dried soil and sand by means of winds and air currents. The same experimenters found that the ordinary house fly can convey enteric infective material from specific excreta or other polluted material to objects on which they may walk, rest, or feed; but that it has not been proved that the enteric bacillus passes through the digestive tract of the fly. During three years in the United States, Howard and his assistants made a collection of all the insects found on or breeding in human fæces; 44 beetles, a number of hymenoptera, and 77 flies. In kitchens during two summers they caught 23,087 flies, of which 98.8 per cent. were *Musca domestica* and 1.2 per cent. of various other kinds, but none of the kinds which are most frequently found on human fæces. Howard, however, points out that though the common fly usually deposits its eggs in horse dung, it frequently lays them in human fæces; so that it is dangerous to have human fæces in the neighbourhood of kitchens and dining rooms. Corfield and others give instances of infection contracted from soiled clothes, or warn against the danger; but Collie

brings forward examples of the greater danger undergone in visiting a patient than in washing his clothes. On pieces of uniform cloth soiled with emulsion of the enteric bacillus Firth and Horrocks found the bacillus capable of detection up to from 74 to 87 days; and on uniform cloth soiled by enteric fæces up to from 9 to 17 days.

That enteric fever is frequently communicated by personal intercourse is an opinion which has steadily been gaining ground of late years. This was found to be an important factor in the causation of the fever in the American military camps; and in a German official military report it is stated that in enteric fever the conveyance from man to man, from patient to attendant, plays a not unimportant part. Corfield and also Munson point out that the incidence of the disease to strength is higher among attendants than among patients in the hospital or soldiers in general. Statistics for nurses are given in Nothnagel's Encyclopedia; though it is expressly pointed out that the disease is not contagious in the old sense of the term. In the Prussian army in 1897-98, 30 attendants and 11 patients in hospital for other diseases were attacked; and Schüder speaks of 35,647 cases of enteric fever with 1,179 cases among their attendants. Eschricht gives a series of five cases, in which each successive person attacked had been attending on the one before; and Krieger reporting on the work of Koch's enteric fever commission mentions that direct infection was found to be more common than had been supposed, and to be the chief means by which the disease was spread. Finally, of some importance are the laboratory cases of Fûrnrohr and of Klinger. Fûrnrohr fell ill three weeks after making an enteric post-mortem examination, and was supposed to have become infected through splashing in cleaning the intestine, or from not having succeeded in cleansing his hands thoroughly. During an experiment an accident caused infective material to splash up into the faces of Klinger and his assistant, and both were in due course attacked by the disease. It has long been known or suspected that the disease may be infectious in the incubation stage, that it is spread greatly by mild cases not diagnosed, and even that the evacuations of healthy people who have been in contact with the sick may contain the bacillus. Hurd speaks of a case in which the fever was moderate and lasted only 10 days, so that the disease was supposed to be a febricula; but the Widal test was applied from time to time, and at last after 40 days the reaction became positive. In Alsace-Lorraine Koch's enteric fever commission have found the von Drigalski and Conradi medium combined with an improved agglutination procedure of great use in discovering mild unsuspected cases. Thus, in one place 73 cases were found where only 10-12 had been reported, and 53 of these were children under 16 years of age.

Courmont, in an article containing a résumé of previous work on the subject, records the finding of the bacillus in all of the nine cases which came under his observation in 1901, but does not venture to affirm that it would be found in mild or abortive cases. He found the bacillus as early as the fifth day, and in four cases before the Widal reaction could be obtained, and up to the end of the third week. The bacilli when recovered from the blood are generally but little agglutinable, but can be made more agglutinable by cultivation. There was no definite relation between their presence and the agglutinating power of the blood, which might be weak or negative. His results are confirmed by Busquet. Licht had positive results in 11 of 14 cases, Haslett in 17 of 24, and Menzer in one case.

Haslett did not find the bacillus before the third or fourth day, but in three instances before the serum reaction was established. In two mild cases he found it on the 11th day. Schottmüller isolated it in 98 of 119, once on the second day; Cole in 43 of 58. Widenmann recovered it from the roseola in 5 of 7 cases; Seemann in 32 out of 34, in 8 before the serum reaction could be obtained. The total result of these and other observations is that the bacillus is discoverable in the blood in from 70 to 80 per cent. of cases. From a study of the literature, Schüder found that 19 observers had detected the enteric bacillus 177 times in the urine of 599 patients, 29.55 per cent.; and he himself isolated it in 5 out of 22, 22.2 per cent.; so that on the whole it may be said that it is to be discovered in between one-fourth and one-third of cases. Büsing records an interesting case of a soldier from China who went on giving out enteric bacilli in his urine for four months after he appeared to be in robust health. Urotropine was successful in clearing the urine, but the man was detained for a month more in hospital under constant observation before he was discharged cured. As an effective disinfectant for the voided urine Gwyn recommends the addition to it of one-fifth its volume of 1—1000 perchloride of mercury solution. By their new method von Drigalski and Conradi succeeded in demonstrating the presence of enteric bacilli in the stools of patients at various stages of the disease, and in more than half the cases at a period when the Widal reaction was not yet established. Remembering Koch's positive results with the cholera comma, and his remarks on the importance of the matter, they examined the stools of apparently healthy persons who had shared the rooms of patients, and in the apparently normal stools of four of them found the enteric bacillus. Dieudonné isolated the enteric bacillus from the red sputum of a patient ill with enteric pneumonia. It remained present in the sputum far into convalescence and when the patient felt quite well, seven weeks after admission; and he points out the importance of this feature, in which enteric pneumonia resembles plague pneumonia, for the spread of the disease. He and also Schüder quote previous similar observations by von Stühlern and by Edel, and two cases have quite recently been added by Glaser. Munson states that positive results have been obtained by Williams and others. In the course of an article on the gallbladder complications of typhoid fever, Camac remarks that it is no longer a question of where the typhoid bacilli may be found, but where they may not be found in the body after infection; and Flexner gives a list of the various situations in which they may be found. Full details as to the work hitherto accomplished in the detection of the bacillus in the human body and its various excretions have lately been collected and published by Burdach.

Besides his earth results, already referred to, E. Pfuhl found the enteric bacillus to survive on linen 97 days, in iced water 26 days, in Selterwater 15 to 27 days, in milk 11 to 13 days, in butter and Gervais cheese 24 days. Firth and Horrocks report that the enteric bacillus is able to survive in surface soil an exposure to 122 hours of direct English sunshine extending over a period of 21 consecutive days; and that from a piece of infected serge it is recoverable after the fabric has been exposed to fifty hours of direct English sunshine spread over a period of 10 days. According to MacConkey, not only is the enteric microbe unable to multiply in crude sewage and sewage effluents, but its presence can no longer be demonstrated therein after the lapse of 6—17 days. In cereal products Klein and Houston observed no tendency on the part of the enteric bacillus to multiply. Sedgwick and Winslow and also Brehme, experimenting with cold, found

Hardiness, survival, or viability. (1)

that there were always apt to be some survivors, even when the majority had been killed. Valentini concludes from his experiments that not only in human surroundings but in human bodies there exist enteric-like bacilli, which are usually harmless to the individual that shelters them, but under certain circumstances can acquire characters which make it impossible to differentiate them from true enteric bacilli, even by the serum reaction.

From the rapid growth of the literature bearing upon non-intestinal forms of enteric fever Flexner judges that typhoid septicaemias will come to be regarded as by no means among the rarest manifestations of the disease. But at the same time the progress of bacteriological diagnosis has revealed the fact that a considerable number of cases which present the clinical picture of enteric fever are really caused by bacilli which are only enteric-like, not Eberthian; and A. Fränkel might have gone further when he expressed his opinion that the belief in the unity of enteric fever is threatened, and that it looks as if from the bulk of so-called enteric fever at least one group would emerge, which is etiologically different from the majority. Others have expressed themselves in somewhat similar terms, and suggestions have appeared for the systematic searching out and study of such cases. Blumenthal has met with a fresh case of enteric fever in which there were no intestinal lesions, although Widal's reaction was positive and the bacillus was cultivated from the spleen and lymph glands. A case of enteric-like fever caused by a bacillus which appeared to be that of Gärtner has been brought forward by Craig and White. Johnston has published four cases of paratyphoid fever, with an analysis of all recorded cases, which shows that the gravity and mortality are less than in true enteric fever, and that there is an absence of intestinal ulceration. Such cases may also appear during enteric fever epidemics, but it is not justifiable to call all enteric-like cases in which the Widal reaction is negative, "paratyphoid", because the reaction sometimes fails in genuine enteric fever. For example, Hoffmann collects 178 cases of negative Widal reaction, and in 8 of these the enteric bacillus was found. In two of Johnston's own cases a paratyphoid bacillus was cultivated from the blood, and in the other two the identification was effected by agglutination of Gwyn's bacillus or of the bacillus got from the first two cases. Widal's reaction was negative in all. Petruschky had a case in which the *B. alcaligenes* was isolated from the roseola, and has convinced himself that the colon bacillus, the *B. alcaligenes*, and perhaps others, may produce an infection very typhoid-like. An interesting waterborne house epidemic was observed by Sion and Negel, in which the symptoms were those of enteric fever. Two of the patients were a man and his sister, both of whom exhibited the Widal reaction. During life a bacillus was cultivated from the blood of the man, which proved to be neither the enteric bacillus nor a typical colon bacillus; and after death there were found no intestinal lesions. In a military epidemic at Saarbrücken, reported by Hünermann, a bacillus belonging between the enteric and the colon bacilli was isolated from the stools and urine by means of von Drigalski and Conradi's method, and in most of the cases Widal's reaction was negative. The occurrence of cases clinically enteric fever, but not caused by the bacillus of Eberth, of course explains some of the negative results of Widal's reaction which have been reported as obtained in enteric fever; and so far, as Gwyn points out, it enhances the value of the reaction.

In the case of Furnrohr, referred to under Direct Infection, the period of incubation was 3 weeks; in that of Klinger 3 weeks, and in that of his assistant, apparently infected at the same time, about 5 weeks. Palmer found that the incubation period of certain cases was 5 days. Corfield describes an outbreak in which Buchanan was able to fix the incubation time as 11 days. The experience of Timann has been that the roseola appears with great regularity from the twenty-first day after infection. In Nothnagel's Encyclopedia the incubation is stated to be usually 1—2—3 weeks, but sometimes longer. At Coblenz in a military outbreak Rieder fixed the time at 14—16 days in eighty per cent. of the cases. From an elaborate paper by Fulton, containing both his own experiences and those of others, it may be gathered that the limits observed were from 9 to 28 days; except in the case of a child who drank infected milk only once, on the afternoon of the 19th July, and fell sick on the 24th, youth and a massive dosage causing shortening of the incubation time. In his account of a case in which there were three relapses, Warfield professes himself inclined to agree with Durham in looking upon the varying preponderance of varietal forms as explanatory of relapses. We are, says Osler, still really without full knowledge of the causes of relapse, but the frequent occurrence is a positive indication that immunity in typhoid fever is slowly acquired, and not reached at the period of apyrexia. In South Africa about 4.5 per cent. or more of Elliot and Washbourn's cases had had a previous attack, and one man died in his third. The highest percentage quoted in Nothnagel's Encyclopedia is that of Eichhorst, 4.2 (28 in 666), and he had observed cases in which there had been three and even four attacks.

Finding that in a certain number of cases in South Africa already in hospital for dysentery enteric fever developed, Rolleston concluded that the diseases had been contracted together, but that the incubation time of enteric fever is greater than that of dysentery. In the same country Elliot and Washbourn observed 21 cases of enteric fever associated with dysentery in the attack, or shortly before or after; and Morris noted that as many seemed to have the dysentery after as before the enteric fever. The bacillus of Shiga seems to be a near relation of that of Eberth. Osler states that Da Costa has collected 22 cases in which the association of abscess of the liver with typhoid fever seemed beyond doubt; that the Munich statistics of 2,000 enteric fever post-mortems give 12; that these Munich statistics perhaps include those of Dopfer, who found 10 in 927; and that abscess of the liver is also sometimes secondary to the complications of enteric fever, such as bone disease, laryngeal perichondritis, &c. Lyon gives notes of 30 cases of true combined typhoid and malarial infections, and refers critically to other reported cases; and Osler in Nothnagel's Encyclopedia reports only 3 out of 1,100 cases of enteric fever treated in the Johns Hopkins Hospital. But in such countries as India similar cases may probably be common. By Fiocca is published a case in which the haemamoeba was present in the blood before the onset of the enteric fever, during the interval between the original fever and the relapse, and after the relapse had subsided, but not while the enteric fever was actually in course.

The board which investigated the outbreaks of enteric fever in the American army during the war with Spain believed that from one-fourth to one-third of the individuals in a regiment were susceptible. Munson and also

Incubation. Relapses. Second attacks. (9).

Dysentery. Abscess of the liver. Malaria. (10)

Susceptibility. Arms of the service. Overwork and overcrowding. Field service. (11)

McCulloch have each treated of the greater incidence of enteric fever among cavalry men than among men of infantry regiments. The latter surmises that possibly the unsterilized water used may contain enteric bacilli, which passing through the horses' bodies may contaminate the ground and litter, and also that the men are in the way of temptation to drink the impure water. Corfield states that overcrowding appears to have less influence on the spread of enteric fever than of any of the other contagious fevers, owing to the fact that the disease appears to be less directly spread from person to person. But the opinion is gaining ground that personal infection, and therefore overcrowding, are very effective, and Corfield himself gives an instance in which Buchanan thought overcrowding had had a good deal to do with the spread of the fever. In the American camps also it was considered to have been a potent factor. The effects of overcrowding and fatigue are also noticed by Munson. A great deal has appeared in the medical papers during the course of the South African war on the subject of enteric fever among troops on active service; and a fresh discussion has lately taken place in the Medical Society of London, the outcome of which is that if the water-supply were in the first place protected and excreta disinfected, a great deal, but not all, would have been done to diminish the scourge.

Corfield summarizes cases which have cast suspicion upon sewer air, and Munson states flatly that the disease may be transmitted by aerial infection from drains, water-closets, latrines, dust-heaps, etc. Corfield and also Schüder have pointed out generally and in detail the particular defects of insanitation which have been connected with actual outbreaks, and the general and some of the particular measures which should be taken to remedy them. Corfield quotes Buchanan as saying that it is the purification of the atmosphere from decomposing organic matters which has been most uniformly followed by a fall in the prevalence of enteric fever. The first thing, according to Schüder, is to protect the water, the second to destroy infection the moment it leaves the body of the sick, and the third to protect the attendants by inoculation. Reincke judiciously remarks that even when the water is infected every case does not arise from that; but some from direct personal infection, some from secondary, tertiary, or more remote foci of infection developed in a latrine, on soiled linen, in a well, in a dairy, in a kitchen, in a gelatine pudding, etc. Agreeing with Duclaux, Schüder, and others, Firth and Horrocks insist that for a proper exercise of preventive measures attention must be concentrated on the dejecta the moment they leave the human body, because once the specific organisms become disseminated in nature, the task becomes stupendous on account of the number of the paths of infection. They point out the defects of the dry earth system in use in India, advocate the use of trough water latrines, and discourage the introduction of biological methods of sewage disposal. But the Government of India will not hurriedly give up the trenching system on account of evidence brought forward which probably only touches the results of bad trenching. Krieger, as has been mentioned, notes the opinion formed by Koch's German commission as to the necessity for greater attention to diagnosis, isolation, and disinfection; and Munson gives the practical rule that convalescent patients should not be permitted to return to duty or quarters till the bacillus has been absent from the urine for a week. The whole matter sums itself up as an effort to secure cleanliness in air, soil, and water. Inoculation has been treated of by Crombie and by Wright from a statistical point of view, while Besredka has suggested a new method of preparing vaccines.

10. The Medical Transactions of 1901 are even more barren than their predecessors of wholehearted or plausible attempts to explain the origin of outbreaks of enteric fever. Recognizing more than ever how little is really known of the natural history of the enteric bacillus, medical officers seem to have come to the conclusion that the less they say, the less they are likely to be wrong. Nearly forty of them state that they could find no cause for the cases which occurred. Of course, as usual, and especially in connexion with the movement of troops, many cases originated elsewhere than in the stations in which they were treated. About eight of the men attacked had very recently landed from England, and two cases occurred, at Colaba and Deolali, in men just off the ship, the disease appearing to have been contracted before arrival in India. Of Agra it is stated that recent arrivals in the station were more liable than residents, irrespective of their length of Indian service. At Quetta two-thirds of the cases occurred in the Cheshire Regiment, which arrived in that station during the year, and no particular barrack-room was affected. At Mhow the preponderance of cases was in the 20th Hussars,* and the medical officer considered that the hygienic arrangements of the regiment must have been seriously at fault, nearness to the bazaar being perhaps a factor. The men of the Dorset Regiment at Ferozepore were supposed to have owed their particular liability to their weakly condition from the effects of malaria. Out of 21 cases at Meerut, 13 occurred in the 15th Hussars,* but no cause was discovered for the greater incidence in that regiment. Several medical officers mention that the cases occurred in a scattered manner in various corps and barracks. No. 4 British cavalry barrack at Lucknow had a disproportionate number of cases; but no sanitary defect could be found in it, and the medical officer suggests that the men may have together frequented some place outside barracks, and got the infection there. At Ferozepore the bazaar was considered to be indicated as the source, because, while the rank and file were attacked, the staff remained free. As usual, in many cases the probable source was suspected to be in impure food or drink partaken of in bazaars and villages, when out walking, when out shooting, when travelling by train, when on the march, when attending camps of exercise and manœuvres; and one medical officer states that even when bazaars are out of bounds, men try to get articles from them secretly. Heat and exertion were also mentioned as contributories. The filth pits were suspected at Ahmednagar, and filth-laden duststorms at Aden and Rawalpindi; while at Bareilly the dhobi ghats were found to be too near the trenches, and had to be moved. Rawalpindi is considered by the medical officer not to be suitable for the Allahabad system of conservancy. The disease is stated to have been more prevalent than usual among the civil population of Agra; and at Kirkee the occurrence of seven cases among the native followers was held to have proved that the surrounding population is a danger to the troops; while suspicious cases were also observed among natives at Quetta and Peshawar. At Allahabad flies were said to be very numerous owing to the operations of the grass farm. Some of the patients attributed their illness to bad smells in the workplace or in the bazaar, to fatigue, exposure to the sun, getting wet. The increase at Jubulpore was attributed to the arrival of some drafts from England, and at Ranikhet 7 out of the 19 men attacked had been not more than nine months in India. At Dagshai the men were suspected of drinking water brought for ablution purposes; at Lucknow of drinking direct from the taps, instead of

* See paragraph 9, sub-paragraph 9.

using the pinked water. The hospital water at Khandalla was impure, owing to a leaky joint near the kitchen cesspit. The filtering arrangements being on too small a scale, filtered water is supplied to Colaba mixed with unfiltered. The result is that the water is sometimes discoloured and contains an excess of, non-pathogenic, bacteria. At Dinapore the well that has the Pasteur filter installation is said to be secure by its situation, and always to give a good analysis before filtration. The Fatehgarh water contains an excess of chlorides; and the well in the sapper lines at Roorkee has a large excess of chlorides and hardness, supposed to be due to contamination of the subsoil water in its passage through the polluted soil of the lines and bazaar of the Bengal Sappers and Miners. Some stations are still evilly distinguished by the possession of that dangerous arrangement, a double water-supply. The water-supplies of Madras, Wellington, Rangoon, Mandalay, Shwebo, Meiktila, Poona, Ahmednagar, Mhow, Hyderabad, and Umballa are specially mentioned as being liable to contamination. But at Umballa, Subathu, Dum-Dum, and Barrackpore the water was not considered to have been concerned in the causation of enteric fever. Ten stations report the results of bacteriological examination, which were mostly negative as regards the presence of the enteric bacillus. A microbe having its cultural and tinctorial characters was found in the water bottle of a man who died of the disease at Poona. He was attacked shortly after returning to the cantonment from military training, and admitted having taken water from any source convenient while out in camp. Only in one sample, from No. 3 barrack, was an enteric-like bacillus found at Agra, but it did not react to the serum test. The Chakrata water did not contain any enteric microbes, but the colon bacillus was found in three samples. It has still proved impossible to obtain the respective average annual strengths of abstainers and non-abstainers; so that a legitimate comparison of the incidence of enteric fever on these two classes cannot be made. The nine medical officers who mention the point return 35 abstainers in 162 men attacked, or about 22 per cent. From a few stations it is reported that no system of purification of the water was used or needed. In most stations boiling and the use of potassium permanganate, and sometimes of alum, were continued. From remarks made here and there it appears to be doubtful whether the water always is really boiled; whether the handling and exposure in the processes of "boiling" and cooling do not in themselves constitute a real danger; whether the water when ready for drinking is always sufficiently protected; and how far it is actually used by the men. In the hot weather of the plains, imperfectly cooled water flavoured with permanganate of potassium cannot be a very attractive drink. Considerable efforts seem to be made, in a number of stations at least, to secure the purity of the aerated waters. Most, if not all, soldiers use butter; but a considerable number use no milk, not even in their tea, and a large number use it only in tea. The subject of dairy management is attracting increased attention, especially with regard to general and detailed cleanliness. Among the most frequently mentioned causes of diminution of enteric fever or immunity from it were the rarity of drafts from England and the greater age and acclimatization of the men. Additional reasons reported from Bangalore were good water, sanitary improvements, and early diagnosis; at Rawalpindi inoculation; at Barrackpore the scrutiny of cases afforded by the use of Widal's test; at Lucknow the establishment of a government dairy farm in the end of 1899, and a less crowded state of the barracks; at Rangoon protection of the

wells ; at Jullundur the absence of the young soldiers in the hills ; at Calcutta pure water and great attention to sanitation ; at Nowgong sanitary improvements. Sialkot and Sitapur were immune for the second year in succession. At Rangoon the wells were protected by a concrete barrier all round to a depth of 20 feet ; at Neemuch the chatties were furnished with lids, and long-handled spoons were provided for taking out the water ; at Quetta the eating houses were placed out of bounds, and the troops went into summer camp ; at Agra the latrines of the British infantry lines were treated once a week with corrosive sublimate solution, and those of the Royal Field Artillery with carbolic acid ; at Nowgong the company officers took great interest in the sanitation of the cookhouses and the proper carrying out of the conservancy, and the stools and urine of every patient with diarrhœa and a temperature above normal were disinfected ; at Cherat, Chakrata, and Landour the use of metal vessels for the conveyance of water was introduced ; at Bangalore the stools of even suspicious cases were incinerated. Cooking by European soldier cooks has been started in a good many stations ; but there are certain difficulties connected with the hot weather, and the men themselves do not seem universally pleased with the result. Considerable, and in some cases systematic, use seems to have been made of Widal's test in the diagnosis of cases. As usual, a few anomalous results were recorded ; but, on the other hand, some obscure cases were securely identified as enteric fever. At Rawalpindi and Murree pure cultivations of the bacillus were made from the spleens of patients who had died of the disease. Two cases in hill stations were complicated with diphtheria. In one case at Quetta dysentery supervened after the enteric fever. In a fatal case at Saugor there were two minute abscesses of the liver, and at Jubbulpore a single abscess. Also, in one of the fatal cases returned under abscess of the liver, the hepatic affection was considered to have been possibly due to antecedent enteric fever. Out of the 776 cases of enteric fever which occurred throughout the army of India in 1901, 11 are noticed as having declared themselves among patients in hospital or among attendants. Out of these, 2 were in hospital for early venereal disease, 1 for warts of the penis and tubercle of the lungs, and 6 for other diseases ; and 2 were attendants on enteric fever cases (excluding one man who for more than three weeks before he was attacked had not been in attendance). At Kirkee a man was attacked who had previously suffered from the disease, in 1897 ; and at Quetta one was reinfected while attending hospital after a recent previous attack.

11. The Sanitary Officers of districts and commands have from time to time submitted reports on different points and on various stations.

Results of special sanitary investigations.

From a consideration of the conditions at and above the intake of the BENARES municipal water-supply, Major Davies was of opinion that although there was manifest and considerable pollution, the volume of the water was so great, and the velocity of the current so rapid, that such pollution was not to be regarded as of practical importance ; and that the water, if efficiently filtered, would be quite fit for drinking purposes. He did not consider that it would be necessary to boil the filtered supply and treat it with potassium permanganate. No suspicious organisms were detected by the usual tests either in the raw or in the filtered water ; but the filtered water, taken from a standpipe just outside the cantonment boundary, contained several hundred organisms per cubic centimetre, which was neither satisfactory nor easy to explain, the filtering

arrangements appearing to be perfect. It was evident that frequent periodical examinations of standpipe water were required. Three wells were reported to be likely to yield water of good quality, provided they were well-cemented to a depth sufficient to prevent the soakage into them of surface or subsoil water, and were covered in and fitted with pumps, to prevent contamination by dust or casual impurities.

Major Davies, having inspected the sources of the DARJEELING municipal water supply on Mount Senchal, and made a bacteriological examination of water from the collecting reservoir, from a tap in Darjeeling, and from a tap at Lebong station hospital, considered the water to be of excellent quality. The springs supplying water to Jalapahar were, however, in his opinion, surface springs gathering water from sources liable to suspicion of contamination; two of them yielding water which contained a very large number of organisms, and one of them being very unsatisfactory in its situation. It was his opinion that the municipal water from Senchal would be a much safer and more satisfactory supply for this cantonment than any of the wells then in use.

Examining the proposed water-supply of AMRITSAR cantonment, Major Weir, in agreement with Mr. Hankin, found the water to be good and pure; but recorded the opinion that to ensure safety from surface pollution, all the eighty wells ought to be made watertight as far down the lumen as possible. The old wells yielded a water which was good but inferior both chemically and bacteriologically to the new water, this being apparently due to a faulty method of protection and raising of the water.

The water of the experimental well at MANDALAY was found by Major Forrest to be bacteriologically and chemically satisfactory, though very hard.

In July 1901 Major Aldridge found that the site of the new tubewell for RANGOON cantonment was a bad one, the soil in the immediate vicinity being extremely polluted, and that the water had become contaminated, possibly by soakage alongside the outside of the pipe. The water was turbid, and the chemical and bacteriological examination showed it to be then unfit for drinking purposes. Major McGill again investigated the matter in November 1901, and found that the site was a bad one; that the water was chemically and bacteriologically pure; that the water was unfit for drinking for some hours each morning, owing to its turbidity and the excessive amount of sand present in it; that the water became quite clear after 20,000 to 30,000 gallons had been pumped up, but remained so for only a couple of hours after the pump stopped. As there is apparently plenty of good pure artesian water in the vicinity, he suggested that, should prolonged and continuous pumping be found not to remove the defects permanently, or if it were considered by the engineers risky to sink the tube deeper, a new boring in a better site would probably be found the cheapest and best remedy, the well under report being abandoned.

The site of the wells proposed for BELGAUM municipality and cantonment seemed satisfactory to Major Aldridge in August 1901, and he was of opinion that good water would probably be obtained from the proposed wells; but the water of an experimental well sunk in 1897, and long disused, contained a somewhat high number of organisms, none of them pathogenic or cloacal, which would be reduced by pumping and cleaning.

The septic tank experiments at QUETTA were held by Major Elliott to demonstrate that thirty times the volume of water is sufficient to deal successfully with excreta by that method; and he strongly advocated the adoption of

the system there. The pressing sanitary needs of the station he considered to be a sufficient water-supply, relief from dust and flies, and a sufficient supply of pure butter and milk; and the measures required therefor to be an increase of the water-supply to make it constant and sufficient to meet the possible contingencies that might arise, and utilization of the waste and surplus water to carry off the excreta to the septic tank installation and of the effluent therefrom on a farm. He submitted three schemes, the choice among which was left to be made on financial and engineering grounds.

There is also an experimental septic tank installation at CALCUTTA, capable, when in full working order, of dealing with the excreta of 1,000 individuals, and of discharging from the continuous filters 3,000 gallons of effluent into the river. Major McGill inspected it, and made suggestions calculated to improve the working and allow of about 5,000 gallons of sewage being dealt with daily.

Major Davies' second report on the proposed water-supply for SIBI was favourable. The samples were free from pathogenic or suspicious organisms; and the water only requires protection from dust to be of excellent quality.

The proposed water-supply for WELLINGTON was examined by Major McGill, who found the scheme a sound one, and the water chemically and bacteriologically pure at its source; but as a coliform bacillus was found lower as the water ran in an open channel, he pointed out the necessity of extending the system of closed piping upwards.

Major Forrest reported unfavourably on the LUCKNOW sadr bazaar drain and on the method used at LUCKNOW of inoculating agar tubes with water.

Regarding the CALCUTTA septic tank, Major Aldridge reported that bacteriological tests showed the number of colonies growing on agar to average $12\frac{1}{2}$ million per c.c. in the tank effluent and $8\frac{1}{2}$ million in the filtrate; and that in both these effluents the *Bacillus coli communis* and the *Bacillus enteritidis sporogenes* were present, rendering the effluent unfit to be discharged into rivers which at a lower point are used for drinking purposes or on to land near habitations.

The water-supply of MANIPUR was found by the same officer to be from wells and tanks, and to be inadequate in quantity. The water of a tank and of a well examined bacteriologically were found not fit for drinking, that of the tank containing *Bacillus coli*. The wells are sunk in polluted soil, and the only remedy is to bring in a new supply some distance from the Palok stream.

On the 25th September a new water-supply was taken into use at BAREILLY, and from the 29th October to the 28th December 19 cases of enteric fever occurred, widely distributed. Neither the enteric bacillus nor any cloacal or suspicious organism was found in any of the samples of water from different barracks examined by Major Aldridge. The trenching ground for the nightsoil of the cantonment had been changed on the 17th September to a place very near the washing ghat. Major Aldridge found soldiers' clothes drying within 100 yards of the trenches, and kitchen clothes being washed and dried within 5 or 10 yards; while the sandy soil from the trenches was being blown in clouds over the linen. From a damp sterilized cloth exposed to this dust he isolated the *Bacillus enteritidis sporogenes* and the *Bacillus coli communis*.

Major Aldridge reported that about 500 feet above the intake of the LUCKNOW water-supply, there was a foul nullah, which during the monsoon, or at any time of high rainfall, discharged into the river a considerable

volume of water highly polluted with excreta. Orders have been issued with a view to the taking of early steps to extend the intake pipe to a safe distance above the nullah.

The DHARMSALA water-supply was favourably reported on by Major Weir; and with regard to the proposed sinking of wells in UMBALLA, the result of his personal inspection of the ground and of the chemical and bacteriological analysis of the water was to show that the proposed site is a suitable one.

From his examinations of the PESHAWAR Pasteur-Chamberland installation, the same officer was of opinion that large installations are practically useless, from the difficulty or impossibility of rendering the joints of the fittings secure; and that the erection of large and costly installations, such as that at Peshawar, would be a waste of money.

Examining the CAMPING GROUNDS on the Rawalpindi-Murree road, he found the condition of the water-supply of two to be unsatisfactory. The presence of *Bacillus coli* in the Barakow water was due to the pump being out of order, and to the door of the well not being kept locked. The Tret water contained abundance of coli and also a *Proteus*; and this contamination was proved to be due, not only to faulty protection of the reservoir, but also to a communication between the spring and a stream in which natives regularly washed clothes.

Major Weir found the RAWALPINDI water-supply to be very good chemically and bacteriologically; though there were two possible, not probable, sources of contamination. In the case of MURREE greater protection was needed both for the source and for the reservoir.

The FERROZEPORE supply was reported by him to be in an unsatisfactory condition from wells being out of repair, from want of protection from dust and from soakage of dirty water, and from the faulty method of distribution.

The same officer says that to expect success from the ALLAHABAD SYSTEM OF CONSERVANCY everywhere, is just as absurd as to think that any kind of land would be suitable for a sewage farm, paying no regard to local conditions. A number of bacteriological examinations of the soil washings of trenching grounds before and after being cropped, went to confirm his opinion that burial in shallow trenches is not a safe sanitary method for the disposal of excreta, and that the dust from this source is a danger to the health of cantonments.

A limited outbreak of ENTERIC FEVER at MURREE was traced by Major Weir to the milk supply. The so-called dairy was a servant's house, dark and ill-ventilated, close to a native latrine. Between the dairy and the latrine was a large earthenware vessel full of water which was used for ablutionary purposes by the natives visiting the latrine, and also by the milkman for washing out his cans. Bacteriological examination of some of this water actually found in a milk can, showed it to be faecally contaminated.

Though some points have been attended to, Major Elliott reported that the water-supply of POONA was still in an unsatisfactory condition, and that the bazaars exhibited many sanitary deficiencies. The main supply required improvement, and the object of providing the soldier at all times with cool, protected boiled water had not been attained. As Major Elliott says, "the prevention of waterborne disease is not obtainable by drinking wholesome water occasionally".

The incidence of ENTERIC FEVER in MHOW was found by the same officer to be in direct proportion to the extent of insanitation prevailing, to the opportunities afforded for the contamination of the drinking water and food supplies

Boiled and pinked water, stored in open chatties to cool, was found on bacteriological examination in two instances to be contaminated. In one regiment, owing to want of supervision by the commissioned officers, " while the arrangements theoretically were excellent, the practical results were deplorable."

The water and milk supply of AHMEDNAGAR remained in the same condition as it was in May 1899 when Major Davies reported on it, and the prevalence of enteric fever had not abated. Major Elliott found that a satisfactory water-supply is not at present obtainable, and that reliance must be placed on boiling and pinking. At present the water supplied to the British troops is supposed to be boiled, but it is questionable whether none but boiled water is used; and all the Boer prisoners attacked by enteric fever admitted that they had drunk other than the boiled water provided. An émbankment had just been completed to form a storage tank for water; but it was discovered that the excreta of the ten or eleven thousand famine labourers who built the émbankment had been buried in deep trenches in the bed of the tank!

Major Elliott gives the following two instances to show how easily probable sources of ENTERIC FEVER INFECTION may escape detection. In a certain hospital it was suspected that supplies were being smuggled in. A strict watch was set, and eventually a mehtar was caught in the act of bringing in tea, &c., the vessel containing the tea being placed in a nightstool-pan, which he was carrying in his hand. In another station some young officers, occupying the same bungalow, were attacked by enteric fever, one after the other. Careful investigation was made, but without success. Some time after it was discovered that the afternoon tea of these boys, recent arrivals in the country, was prepared by the mehtar.

In the autumn of 1901 CERTAIN WATERS OF AHMEDNAGAR were examined in the Plague Research Laboratory, Bombay; and in two instances a bacillus was met with which while at once differentiated from the true enteric bacillus by some of the tests, was by the remaining tests, especially the serum reaction, shown to approach it in certain essential points. It was agglutinated by a 1 to 20 dilution of an immune serum, whereas the true enteric bacillus was agglutinated by a 1 to 100 dilution of the same. In no instance was there found in these waters any microbe more closely resembling the typical enteric bacillus. On the result of this analysis Mr. Haffkine⁽¹⁹⁾ remarks that such intermediate specimens are met with whenever one searches for them in suspected waters; and that it may possibly be that the true enteric microbe never retains in nature all the particular characteristics which are typical of it when isolated from an enteric fever patient.

In only 2 out of 224 SPECIMENS (mostly water, but also limejuice, blood, urine, and fæces) submitted to Mr. Hankin for examination were microbes resembling that of enteric fever detected; and only one of these reacted positively with anti-enteric serum.

12. Notwithstanding the resumption of reliefs, there was again a decrease

of both morbidity and mortality from enteric fever. Whether the improvement will be maintained after the ordinary system of reliefs has been somewhat longer re-established remains to be seen; but, so far, the forebodings of last report have not been fulfilled. The number of admissions has steadily declined during the last three years; and it is of course possible that a certain amount of the credit may be due to inoculation, as well as to the scarcity of drafts; but the idea most full of hope is that

¹⁹ Enteric fever in 1901. Appen-
dices A, B, and G. Table IV.

the reduction may be at least partly due to the work of the special sanitary officers, who from 1898 onwards have been engaged in finding out the sanitary defects of stations, especially of stations distinguished by outbreaks or endemic prevalence of enteric fever, and in guiding the authorities to the application of the proper remedies.

The admission rate is the lowest recorded since 1887. There were 776 admissions and 202 deaths, against 970 and 289 in 1900. The average duration of a case was over 55 days; and the average number constantly sick 117·07, which being multiplied by 365 gives 42,730·55, the total annual loss of service due to sickness only from enteric fever.

13. Groups XII a, VIII, V, and VI had, as usual, high decennial ratios of admission; and Groups II and X, and, to a less extent, I and IV, low ratios. In 1901, though four groups, including VIII and VI, which had the highest admission ratios of the year, showed higher ratios than in 1900, the admission ratios of all groups were below their decennial means. No less than four stations in Group VIII recorded admission ratios over 20 per mille.

14. Among the stations with strengths over 100 the highest admission ratios of 1901 were those of Nasirabad, Ahmednagar, Bareilly, and Mhow; and the highest death-rates those of Murree, Ferozepore, Kasauli, Cherat, and Nasirabad. Fifteen stations registered admission ratios over 20 per 1,000, and of these Neemuch, Nasirabad, Agra, and Mhow were in Group VIII. With regard to Nasirabad, see the report for 1900, page 21, paragraphs 14 and 16. Five of the eight cases at Neemuch are said to have been contracted elsewhere, and no cause was discovered for the other three. The high rates at Kasauli are not explained. Some information about the other stations here mentioned will be found in paragraphs 10 and 11 above. The highest decennial ratios were those of Subathu, Cherat, Taragarh, Dagshai, Benares, Agra, and Lucknow; while low ratios were most common in Burma stations and stations near the sea.

15. In 1901 the greatest liability to suffer and die from enteric fever was between the ages of 20 and 25 and in the first year of Indian service. In 1900 the incidence of the disease had been greater than in 1899 at all age periods except the second, and in all service periods except the first two; but in 1901 it was less than in 1900 in all age periods except the last, and in all service periods except the first. This last fact is probably connected with the arrival in India of about 8,700 men from home during the course of the year; though their arrival fortunately did not prevent the annual ratios of the whole army from falling. In 1901 under one year's service the liability to fall sick of enteric fever was at least twice as great as in any other period of service, and oftener three times or more.

16. In the lustrum 1896-1900, so far as can be gathered from the non-calendar returns of the army, the maximum months for India as a whole were April-May and August-September, especially the first month of each of these couples. In the same quinquennium Group XII a (See paragraph 13) had maxima in April-May and in July-September; Group VIII in April-May and in August-September; Group V in January, March-May, and November-December; Group VI in January, April-June, and November-December. Again, in the same five-year

period 10 out of 14 stations (See paragraph 14) had a spring maximum in April-May, and 9 an autumn maximum in July-September; that is, most of them had two maxima; but Dagshai had one long maximum, April-October, and Lucknow three, January, March-April, and November-December. The cold weather maximum appears to be most marked in Northern India, especially in Groups V, VI, VII, and VIII; and may possibly be connected with the more marked changes of season in those regions. A certain influence on the apparent climatic incidence of the disease must be exercised by the usual yearly arrival in October-March of unseasoned men; and it may be noted that in 1900, when there were no arrivals, the curves up to the maxima were not so steep as in the preceding and following years, and the maxima themselves were postponed. Various attempts have been made in this report and elsewhere to explain the regional and seasonal distribution of enteric fever in India, the latest perhaps being that of Aldridge; but it must be recognized that though glimpses of the truth may have been thus attained, a complete explanation is yet to seek. The best authorities are still in doubt as to the relation of enteric fever to season; and Abbott has some justification for saying that the common assumption that enteric fever is mostly an autumnal disease is only correct for sporadic cases in places which do not offer a suitable medium for the development of the enteric bacillus, and that where the conditions are favourable to the bacillus, outbreaks are due entirely to the less or greater pollution of the channels through which the germs can be diffused. Grünbaum has begun investigations as to whether there is any seasonal variation in the bactericidal power of the blood as a possible factor in epidemiology.

17. In the men of the European army of India there occurred only 3 cases of plague (2 admissions) with 1 death; one admission at Belgaum and one "on the march," and one death at Ahmedabad. This comparative immunity is no doubt due in part to the great care taken to prevent men coming in contact with the disease, by putting infected areas out of bounds, &c. No officers or children were attacked, and the two women who were admitted, one at Bangalore and one at Bellary (infected at Bangalore), both recovered. It is mentioned that some plague occurred in the native followers of the Royal Field Artillery at Kirkee.

A single case of cerebro-spinal fever, a fatal one, occurred at Mhow. The widespread incidence of this disease among natives is mentioned in subsequent sections of the present report. Measles was sometimes contracted from the Boer prisoners. Out of the 28 cases of beri-beri, 25, with all the three deaths, were returned from Burma, Shwebo and Mandalay having 20 cases between them. The medical officer at Rangoon does not understand how Europeans get the disease, if it is conveyed in rice; but he does not mention whether the soldiers ever drink the native rice liquor. No arsenic was found in the beer supplied to the troops at Mandalay and Meiktila. No cases of dengue were returned.

18. There was no change in the morbidity, but a fall in the mortality from tubercle of the lungs. For the quinquennium the pulmonary tubercle mortality of the European troops, as well as of the native, was highest in the Bengal Command, that of Bengal being highest for native troops, and that of the Punjab for European in 1901. The mortalities of European troops, of native troops, and of prisoners for the year were as 9, 16, and 75.

19. The admission and the death-rate from pneumonia rose, the former being also higher than the decennial ratio. Burma Inland and the Hills groups had the highest admission ratios, a relation which is not usual, and does not appear to be connected with the distribution of influenza. December was the maximum month, and August the minimum. Khanspur in the Murree hills had the highest admission and death-rates.

With the exception of the Convalescent Depôts, Burma Coast had, as usual, the highest admission ratio for Other respiratory diseases. Chaubattia and Campbellpur had the highest hills and plains ratios, respectively; and four other hill stations or depôts and five other plains stations or depôts had admission ratios over 50 per mille. The high ratio at Umballa was due to the Essex Regiment, which had arrived from Burma, and was under canvas at the beginning of the cold weather.

20. The admission rate from dysentery fell, but the death-rate rose somewhat. Dysentery was, as usual, most prevalent in the Bengal-Orissa group; but it was nevertheless more prevalent, though not so fatal, in the Madras than in the Bengal Command. The maximum period was August-October, and the maximum month September. By far the highest admission and death ratios were those of Barrackpore (304.5 and 28.85); while Dum-Dum had the next highest admission rate (98.8) and Meean Meer the next highest death-rate (11.14). With reference to his former idea that the prevalence of the disease was due to the dampness of the subsoil, the medical officer notes that 1901 was drier than usual. He thinks that the poison is in the barracks or their vicinity, very likely in the latrines and urinals; and that the most important predisposing cause is chill. The men in barracks suffered out of proportion to the married families and staff and departments, and the medical officer asserts that not a single case occurred among the large civil population. One medical officer attending on the cases contracted the disease.

From the conflict of opinion there seems to be emerging the conclusion that in India, as elsewhere, there are two main forms of dysentery, the bacillary and the amoebic, of which the latter only is apt to be followed by abscess of the liver. Miss Sheldon Amos, however, as the result of a critical review of the literature feels herself forced to the conclusion that no organism has been finally shown to cause any one form of dysentery. The amoebic form as it occurs in Calcutta has been carefully described by L. Rogers. For the benefit of the inexperienced observer it should, however, be noted that recently Shiga, in criticizing the published results of Jaeger, who had reported the existence of amoebic dysentery in East Prussia, calls attention to the fact that the *Amoeba dysenteriae* is not the *Amoeba coli*, and that the finding of the latter in any case proves nothing. The *Amoeba dysenteriae* is from three to five times larger than the *Amoeba coli*, and the boundary between its endoplasm and its ectoplasm is much sharper; its movements and changes of form are much more lively; and it occurs in far greater numbers in the stool. From their greater proneness to suppuration of the liver, it would appear that in India Europeans are more liable to amoebic dysentery than natives are; but reason of this, if it is a fact, is not known. E. Pfuhl found the bacillus to remain alive in damp garden earth 101 days; in loose dry sand 12 days; on linen 17 days; in water in the ice-box 9 days, and in water at room temperature 5 days; in Selterwater 23 days; in

milk 8 to 27 days; in butter 9 days; in Gervais cheese 9 days. Krieger notes that Koch's enteric fever commission are of opinion that the same measures are required against dysentery as against enteric fever.

The admission and death-rates from diarrhoea fell, especially the latter. The admission rates of groups varied between 23.2 in Central India and 1.0 in Burma Coast. The highest station ratios were at Landour, Meean Meer, and Barrackpore. There was no cholera at any of these stations.

The prevalence of disorders of the digestive system at Umballa was ascribed to drinking on the receipt of bounty money.

21. Both the admission and the death-rates from abscess of the liver fell, the former very slightly. The Bengal Command and the Bengal-Orissa group had the highest ratios of admission and mortality. There were 5 deaths at Barrackpore; and the highest admission and death ratios were those of the same station. Of the 11 cases at Barrackpore, 9 were associated with or sequent on dysentery. In one case each at Neemuch and Kurrachee abscesses of the liver were associated with typhlitis.

Hepatic abscess. (16) Appendix A.
Tables III and IV.

As due to abscess of the liver were returned 83 deaths, but to these may be added 18 returned under other heads (dysentery, enteric fever, &c.) in which examination of the body after death showed the presence of abscess of the liver. In these 101 the postmortem record is complete only for 56, of which 33 were associated with ulceration, and 23 not associated. Three were noted as being associated with dysentery, but without ulceration; and three as being associated with ulceration, but without dysentery.

Excluding 83 cases in which postmortem examination was omitted or was incomplete, the total number of fatal cases in which abscess of the liver was found in the 6-year period 1896-1901 was 509. In 271, or 53 per cent., there was found ulceration of the intestine, and in 238, or 47 per cent., no ulceration; in 171, or 34 per cent., there was a single abscess, and in 338, or 66 per cent., there were more than one.

Among the 271 associated with ulceration, there was a single abscess in 73, or 27 per cent., while there were multiple abscesses in 198, or 73 per cent. On the other hand, when the suppurative hepatitis was unassociated with ulceration there were 98 cases, or 41 per cent., in which the abscess was single, and 140, or 59 per cent., in which the abscesses were multiple.

Again, out of the total of 171 single abscesses, 73, or 43 per cent., were associated with ulceration, and 98, or 57 per cent., not so associated. In contrast to this, among the 338 cases of multiple abscesses, 198, or 59 per cent., were associated, 140, or 41 per cent., unassociated with intestinal ulceration.

From his experience in Calcutta, L. Rogers finds that the form of bowel disease associated with the large tropical abscess of the liver is amoebic dysentery, though severe sloughing forms of catarrhal dysentery may be associated with small multiple pyaemic abscesses; that the amoeba is constantly found in an active condition in the wall of tropical abscess of the liver, although frequently absent from the pus in its cavity; * that other organisms are absent from the pus when the abscess is first opened; and that dysentery or dysenteric lesions are present in at least 90 per cent. of the cases. On the other hand, Manson is somewhat sceptical with regard to both amoebic dysentery and amoebic abscess. Miss Sheldon Amos, in the critical review quoted in last paragraph, does not consider the causative relation of the amoeba to liver abscess as by any means settled.

* See S. C. I., 1899, pages 57 and 65; also J.P.B., VIII, page 349.

22. The admission rate from venereal disease for India was 276·0, against 298·1 in the previous year, and 313·4 in 1899. In other words, in 1901 for every 1000 men there were about 22 fewer admissions to hospital for venereal disease than in 1900. From the reports of medical officers it appears that some of the principal causes of decrease were believed to be—the greater age and experience of the men, which made them more cautious and more ready to listen to advice; the working of the cantonment general hospitals; the interest taken in the matter by regimental and other authorities; the comparative absence of famine-stricken women; the more prolonged treatment of constitutional disease; various measures taken to protect the men; the outpatient system. Lectures and warnings were frequently addressed to the men by medical officers, chaplains, and regimental officers; means of ablution were provided, and their use encouraged; measures were taken to prevent the women being in evidence or soliciting the men; dangerous places were placed out of bounds; concerts and other evening amusements were provided.

In 1901 there were 1416·04 (against 1,630·33) men constantly sick in hospital from venereal disease. The average stay of a case of venereal disease in hospital was 30·79 days (against 32·97); and the total loss of service was about 516,855 days (against 595,070). There were 8 deaths (0·13 per mille of strength) and 383 invalidings (6·30 per mille) directly due to venereal disease—against 14, or 0·23 per mille of strength, and 380, or 6·28 per mille.

The only ratios over 500 per mille of strength were those of Satara (strength only 35), Belgaum, Rangoon, Saugor, and Calcutta. All these stations had higher ratios than in 1900. The greatest increases of ratio, increases of more than 200 per mille of strength, were at Bhamo (strength only 25) and Belgaum; and there were increases over 150 per mille at Chingrikhal (strength only 49) and Calcutta. The increase at Belgaum was ascribed to the flocking into the bazaar of diseased women turned out of their homes by famine and plague, and also to the rigorous discovery of cases by inspections; at Rangoon to an outbreak of vice on the receipt of bounty money; at Saugor to the invasion of the vicinity of the barracks at night by women from the city; at Calcutta to the general good health of the men making them more inclined to spend their time in the bazaar. The system of interstation intimation, whereby, when a woman is expelled from a cantonment, notice is sent of the fact to the cantonments she is likely to make for, was not rigorously carried out. An endeavour was made to get the men to identify the women who had given them disease, but they were not always able or willing to do so. Prostitution on the roadsides and outside cantonment limits was, as usual, a great difficulty.

All the commands shared in the decrease, except Madras, and the increase there was moderate. All of the four arms of the service shared in the decrease. In both years the infantry was highest in ratio, and the royal engineers lowest.

In 14 stations (against 20) the ratio of primary syphilis *plus* soft chancre was over 150 per 1,000 of strength, the highest ratios being those of Bhamo (strength only 25), Belgaum, Rangoon, Calcutta, and Saugor; and in 19 other stations it was over 100 per 1,000. In 13 stations (against 20) the admission rate from secondary syphilis was over 100 per 1,000 of strength, the highest ratios being those of Poonamallee, Darjeeling, Taragarh (strength only 48), and Deolali; and in 16 other stations (against 15) it was over 75 per 1,000.

For India the ratio of primary syphilis *plus* soft chancre diminished by 11·9 per mille of strength; that of secondary syphilis by 4·2; and that of

gonorrhœa by 5.9. The Madras Command had the highest ratio for gonorrhœa for primary syphilis *plus* soft chancre, and, as usual, for secondary syphilis.

In many cases medical officers cannot be sure whether a sore will or will not be followed by constitutional symptoms. All such cases are by some medical officers returned under primary syphilis, by others under soft chancre; and when in due time secondary symptoms have or have not appeared, the necessary correction of the previous entry is not always made. For that reason primary syphilis and soft chancre are here considered together, though they are shown separately in the tables. Some of the cases returned as non-venereal buboes were due to strains or injuries. With regard to the others, opinions differ in the same way as in former years as to whether and how far a venereal element is usually present or not. It seems certain that buboes do occur which are neither traumatic nor venereal. A series of cases has lately been published by Caddy in Calcutta, and Rife has reported similar cases from the Caroline Islands. Under official auspices in Prussia, nearly two-thirds of the civil and military medical men asked to do so, sent in a census enumeration of the venereal cases under treatment by them on the 30th April 1900. The result was to show that venereal disease was much more prevalent in civil life than in military, the respective ratios for males being 28.20 and 15.20 per 10,000. It was also found that venereal affections were enormously more prevalent in crowded centres than in the sparsely peopled country.

23. There were 11 deaths from alcoholism, giving a ratio of 0.18, both Alcoholism. Tables XVI and LIII. figures being above those of the two years preceding. The yearly average number of deaths in the decennium 1891-1900 was 7; so that the figures of 1901 were considerably above the average. In some cases the receipt of bounty money led to drinking.

24. The heatstroke death-rate for India fell, the decrease being chiefly in Heatstroke. Appendix A. Tables XVI and LIII. Madras, and to a less extent in Bengal. Campbellpur, Delhi, Nowgong, and Deesa had the highest admission ratios, and Meerut and Campbellpur the highest numbers; Deesa and Benares the highest death-rates, and Aden the greatest number of deaths.

25. In the ten years 1891-1900 there were 194 suicides, or about 19 per Suicide. Tables XVI and LIII. annum. There were 14 in 1901, of which 10 were by gunshot, 3 by cutthroat, and 1 by drowning.

26. In the whole army of India 2,393 men were invalided, or 39.33 per Invaliding. Appendix A. Tables XVII and LIII. mille of strength, against 2,026 and 33.46 in the preceding year, the increase being greatly due to the larger number of men invalided for malarial fevers and for debility, and being shared in by all the commands except Madras. The proportion of invalids to strength was lowest in Bengal, and highest, as usual, in Madras. The increase was greatest in the Punjab and Bombay; and in these two commands Ferozepore and Kurrachee, probably on account of the malarial outbreak described in the report for 1900, had most invaliding from ague, Meean Meer and Kirkee from debility. The percentage of men who were invalided while under 25 years of age to the whole number invalided was 42, against 52 in 1900, and of those under 30 years of age 88 per cent., against 90. Of the total number of men invalided, 14 per cent. (against 33) were of less than two years' service, and 60 per cent. (against 72) were of less than 5 years' service.* The fall in these percentages in 1900 and again in 1901 is due to the

* The percentage strengths at these ages and periods of service will be found in Table XV.

comparative absence of drafts, the army standing fast for most of the time and increasing its age and length of Indian service.

27. The chief causes of admission among officers were ague and simple continued fever; and while the admission rates from tubercle of the lungs, hepatic abscess, influenza, venereal disease, and simple continued fever rose, those from cholera, smallpox, enteric fever, malarial fevers, and dysentery fell. The chief cause of death was enteric fever, and the ratio was higher than in the previous year. Malarial fevers and abscess of the liver had also increased ratios. The admissions from influenza, fevers except ague, diarrhoea, and hepatic affections were higher than among the men; as were also the death-rates from fevers, circulatory diseases, and hepatic abscess. One officer suffered from a second attack of enteric fever, twenty years after the first. Two officers who suffered from enteric fever at Poona, came from the same bungalow. They had been out shooting and had drunk any water they could get. There was nothing insanitary about the bungalow, but they did not know where their milk came from or whether it was boiled. The officers' kitchen was found to be insanitary. One officer at Roorkee had been reckless about water and native sweets. At Ahmednagar the disease was thought to have been probably contracted at the mess, as the cook and the mess waiter had both been admitted to hospital for the same disease. One officer at Murree contracted the fever through milk from an insanitary dairy which infected other people in the station. (See paragraph 11, sub-paragraph 21.)

28. The health of the women was decidedly better than in 1900. The chief causes of admission were debility, ague, and the diseases peculiar to women. All the diseases tabulated had lower admission ratios, except influenza, pneumonia, and other respiratory diseases. Debility caused about 39 per cent. of the total admissions, and ague about 17 per cent. The chief cause of death among women was enteric fever, which caused nearly 26 per cent. of the total deaths. Most of the diseases tabulated showed greatly reduced death-rates, but mortality was increased from hepatic abscess, pneumonia, tubercle of the lungs, ague, and enteric fever. As to the causation of the enteric fever, no special remarks are made in the reports.

29. There was a great improvement in the health of the children. The chief causes of admission were ague and respiratory diseases. All the diseases tabulated gave diminished admission rates, except whooping cough, cholera, smallpox, enteric fever, and influenza. Ague caused over 23 per cent. of the total sickness, and respiratory diseases nearly 14 per cent. The chief causes of death were diarrhoea and convulsions. Among the causes of death tabulated, only convulsions, cholera, smallpox, and dysentery showed increased mortality. Diarrhoea caused nearly 23 per cent. of the total deaths, and convulsions over 14 per cent. Half the total number of cases of measles occurred at Quetta and Bangalore. Quetta had also the highest number from chickenpox. In four out of the six cases (five admissions) of tubercle, the intestine, peritonæum, or lymphatic glands were affected; and a fifth was returned as general tuberculosis. The four children who died from tubercle were from two to six years of age. Nothing is said as to the causation of the enteric fever cases.

The liability to death was greatest under 6 months, the height of the percentage being, as usual, to a considerable degree due to cases of immaturity at birth.

Papers and Books referred to in Section II.

Abbreviations used below.

- S.C.I. = Annual Report of the Sanitary Commissioner with the Government of India.
- L. = Lancet.
- B. M. J. = British Medical Journal.
- J. A. M. A. = Journal of the American Medical Association.
- J. T. M. = Journal of Tropical Medicine.
- J. H. = Journal of Hygiene.
- J. P. B. = Journal of Pathology and Bacteriology.
- N. = Nature.
- I. M. G. = Indian Medical Gazette.
- J. H. H. R. = Johns Hopkins Hospital Reports.
- B. J. H. H. = Bulletin of the Johns Hopkins Hospital.
- L. G. B. = Report of Medical Officer, Local Government Board.
- V. J. = Virchow's Jahresbericht.
- Z. H. = Zeitschrift für Hygiene.
- 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.
- M. M. W. = Münchener Medicinische Wochenschrift.
- A. K. G. A. = Arbeiten aus dem Königlichen Gesundheitsamte.
- A. P. = Annales de l'Institut Pasteur.
- J. P. P. G. = Journal de Physiologie et de Pathologie Générale.
- (1) Onorato in C. B. XXXI, page 704.
- (2) Wright and Windsor in J. H. II., page 413.
- (3) Schüder in Z. H. XXXVIII, page 343; Corfield in L. of March, April, and May 1902; Savage, reported in B. M. J. of 27th September 1902, page 934; Sims Woodhead, reported in B. M. J. of 27th September 1902, page 935; L. of 26th October 1901, page 1170; von Drigalski and Conradi in Z. H. XXXIX, page 283; Vaughan in J. A. M. A. quoted in J. T. M. of 15th May 1902, page 163; Kayser in C. B. XXXI, page 426; Klinger in C. B. XXXII, page 542; Bancel in J. P. P. G. IV, page 519; Sion and Negel in C. B. XXXII, pages 481 and 581; and quoted in D. M. W. XXVIII, Litteratur-Beilage, page 267; Neumann in D. M. W. XXVII, page 769; Houston in B. M. J. of 21st December 1901, page 1793; Chick in Thompson Yates Laboratory reports, Vol. III, page 117, quoted in N 64, page 604, and in H. R. XII, page 647; Savage in J. H. I, page 437; Leader in B. M. J. of 21st December 1901, page 1826; Firth reported in L. of 9th August 1902, page 384; Papatotirin, A. H. XLI, page 204, quoted in J. P. P. G. IV, page 389, and in D. M. W. XXVIII, page 730; Irons in J. H. II, page 319; Savage in J. H. II, page 338; Meusburger and Rambousek in C. B. XXXII, page 476; Horrocks in J. H. I, page 202, noticed in H. R. XII, page 752; Jordan in J. H. I, page 318; Aldridge in J. H. II, page 360; Caink, reported in L. of 26th October 1901, page 1134; Mills quoted in Munson's *Military Hygiene*, page 116; Osler in *Studies in Typhoid Fever*, page 162; Munson's *Military Hygiene*, page 681; Schüder in Z. H. XXXIX, pages 379 and 532, and in Z. H. XL, page 196; Engels in C. B. XXXII, page 495; Ohlmüller and Prall in A. K. G. A. XVIII, page 417; Schüder and Proskauer in Z. H. XLI, page 227; Nothnagel's Encyclopedia, English Edition, Typhoid Fever, page 37; H. R. XII, page 187; Freeman, *The Sanitation of British Troops in India*, quoted in B. M. J. of 31st May 1902, page 1341; Corfield, as above; Osler, as above, page 162; Fulton in J. H. I, page 422; Schüder in Z. H. XXXVIII, page 346; Nothnagel as above, page 37.

- (4) Osler, as above, page 163; Munson, as above, page 685; Corfield, as above; Schüder in Z. H. XXXVIII, page 348; Sidney Martin in L. G. B., quoted in B. M. J. of 16th August 1902, page 468, in B. M. J. of 27th September 1902, page 981, in L. of 23rd August 1902, page 549, and in L. of 13th September 1902, page 766; Houston in L. G. B., quoted in B. M. J. of 16th August 1902, page 468; E. Pfuhl in Z. H. XL, page 555; Gotschlich in Kolle and Wassermann's *Handbuch der Pathogenen Mikroorganismen*, pages 183, etc.; Firth and Horrocks reported in B. M. J. of 27th September 1902, page 941; V. Poore in B. M. J. of 11th October 1902, page 1187; Munson, as above, pages 678, 684, and 342; Powell in B. M. J. of 29th March 1902, page 811; Osler, as above, page 165; Munson, as above, page 428; Nothnagel, as above, page 78; Firth and Horrocks, as above; Howard, quoted in C. B. XXX, page 936, from the Proc. Wash. Acad. of Scis. Vol. II, page 541; Corfield, as above; Lea in B. M. J. of 5th April 1902, page 867; B. M. J. of 10th May 1902, page 1192; B. M. J. of 17th May 1902, page 1251; Nothnagel, as above, page 55; Collie in L. of 5th July 1902, page 45; Firth and Horrocks, as above.
- (5) B. M. J. of 26th October 1901, page 1310; Childs in B. M. J. of 26th July 1902, page 263; H. R. XII, page 187; Corfield, as above; Munson, as above, page 686; Nothnagel, as above, pages 63 and 77; H. R. XII, page 410; Schüder in Z. H. XXXVIII, page 352; Eschricht quoted in C. B. XXX, page 667; Krieger in D. M. W. XXVIII, page 711; Fürrohr in M. M. W. 1901, No. 25, page 1010, quoted in H. R. XII, page 294, and in V. J. XXXVI, 2-1, page 10; Klinger in C. B. XXXII, page 550; Munson, as above, page 685; Hurd in B. J. H. H. XIII, page 61; Krieger, as above.
- (6) Courmont in J. P. P. G. IV, page 155; Busquet in J. P. P. G. IV, pages 352, 366, and 578; Licht, quoted in J. P. P. G. IV, page 352; Haslett, page 19, and Menzer, page 18, of V. J. XXXVI, 2-1; Widenmann, quoted in C. B. XXX, page 539, and in H. R. XI, page 944; Seemann, quoted in D. M. W. XXVIII, Litteratur-Beilage, page 141; Schottmüller, quoted in D. M. W. XXVIII, Litteratur-Beilage, page 245; Cole, etc., quoted in Nothnagel, pages 175 and 421; Schüder in Z. H. XXXVIII, page 352; Büsing in D. M. W. XXVIII, page 443; Gwyn in J. H. H. R. VIII, page 389; von Drigalski and Conradi, as above; Dieudonné in C. B. XXX, page 481; Schüder, as above, page 353; Glaser in D. M. W. XXVIII, pages 772 and 793; Munson, as above, page 680; Camac in J. H. H. R., page 339; Flexner in *Studies in Typhoid Fever*, page 352; Burdach in Z. H. XLI, page 305.
- (7) E. Pfuhl, as above; Firth and Horrocks as above; MacConkey, quoted in B. M. J. of 6th September 1902, page 717; Klein and Houston in L. G. B., quoted in L. of 13th September 1902, page 766; Sedgwick and Winslow, quoted in H. R. XI, page 1089; Brehme, quoted in H. R. XII, page 356; Valentini, quoted in Baumgarten's Jahresbericht XVI, page 236.
- (8) Flexner in J. H. H. R. VIII, page 259; A. Fränkel, quoted in D. M. W. XXVIII, Vereins-Beilage, page 158; Cherry, reported in L. of 19th April 1902, page 1141, and in B. M. J. of 17th May 1902, page 1227; leader in B. M. J. of 20th September 1902, page 898; Grünbaum and Hume in B. M. J. of 12th July 1902, page 115; Chantemesse, quoted by Corfield in L. of 5th April 1902, page 947; Squire, quoted in L. of 1st November 1902, page 1195; Blumenthal,* quoted in B. M. J. of 4th October 1902, epitome-page 49; Craig and White, reported in B. M. J. of 24th May 1902, page 1270; Johnston in A.M.J. of Med. Scis. CXXIV, page 187, quoted in B. M. J. of 6th September 1902, epitome-page 33, and in J. P. P. G. IV, page 942; Hoffmann in H. R. XII, page 833; Petruschky in Z. H. XL, page 567, and in D. M. W. XXVIII, page 212; Sion and Negel in C. B. XXXII, page 481; Hünermann in Z. H. XL, page 522; Gwyn in J. H. H. R. VIII, page 389; Welch, Huxley Lecture, reported in B. M. J. of 11th October 1902, page 1107.

* See D. M. W. XXVIII, page 835.

- (9) Fürnrohr, also Klinger, as above ; Palmer, quoted in V. J. XXXVI 2-1, page 9 ; Corfield, Milroy Lectures, as above ; Timann, quoted in Z. H. XL, page 523 ; Nothnagel, as above, page 80 ; Rieder, quoted in D. M. W. XXVIII, Litteratur-Beilage, page 187 ; Fulton in J.H. I, page 422 ; Warfield in B. J. H. H. XIII, page 175 ; Osler in J. H. H. R., page 429 ; Elliot and Washbourn in L. of 18th January 1902, page 139 ; Nothnagel, as above, page 68 ; Rolleston, reported in L. of 2nd November 1901, page 1195.
- (10) Rolleston, quoted in B. M. J. of 5th October 1901, page 976, and in B. M. J. of 2nd November 1901, page 1343 ; Elliot and Washbourn, reported in L. of 2nd November 1901, page 1195, and of 18th January 1902, page 139 ; Morris, reported in L. of 7th December 1901, page 1559 ; Osler in J. H. H. R. VIII, page 379 ; Lyon in J. H. H. R. VIII, page 263 ; Nothnagel, as above, page 65 ; Fiocca, quoted in D. M. W. XXVIII, Litteratur-Beilage, page 207.
- (11) Munson, as above, page 690 ; Lignières in A. P. XV, page 734 ; Munson, as above, page 690 ; McCulloch in *Enteric Fever amongst the British troops in India*, page 13 ; Corfield, as above ; Munson, as above, page 690 ; Charpentier, quoted in F. M. 19, page 999 ; Discussion reported in B. M. J. of 1st November 1902, page 1446, and in L. of same date, page 1195.
- (12) Corfield, as above ; Munson, as above, page 683 ; Schüder, as above ; Firth and Horrocks, as above ; Reincke, quoted by Lotz in Z. H. XLI, page 218 ; Krieger, as above ; Munson, as above, page 695 ; Crombie in L. of 16th August 1902, page 426 ; Wright in L. of 6th September 1902, page 651 ; Besredka in C. R. de l'ac. des Scis. CXXXIV, page 1330.
- (13) D. O. No. 2413, dated 25th December 1901, to the Secretary to the D. G., I.M.S.
- (14) Aldridge in J. H. II, page 361 ; Osler in *Studies in Typhoid Fever*, page 164 ; Nothnagel, as above, pages 73 and 75 ; Munson, as above, pages 684 and 688 ; Abbott, quoted from Proc. of the Path. Soc. of Philad. in H. R. XI, page 946 ; Grünbaum in B. M. J. of 12th July 1902, page 115.
- (15) See references given for paragraph 73, Section IV ; Miss Sheldon Amos in J. P. B. VIII, page 367 ; L. Rogers, reported in B. M. J. of 20th September 1902, page 849 ; Shiga in C. B. XXXII, page 352 ; E. Pfuhl in Z. H. XL, page 555, quotes Shiga ; Krieger, quoted in D. M. W. XXVIII, page 711.
- (16) L. Rogers in B. M. J. of 20th September 1902, page 848 ; Manson in the same, page 851 ; Miss Sheldon Amos, as above, page 354.
- (17) Caddy in I. M. G. of July 1902, page 257 ; Rife in B. M. J. of 23rd August 1902, page 251 ; Guttstadt, quoted in L. of 27th September 1902, page 875 ; Blaschko, quoted in B. M. J. of 8th November 1902, page 1559.

SECTION III. NATIVE ARMY OF INDIA.

30. The health of the native troops was on the whole, better than in the preceding year, the improvement being in the death-rate. For the population generally the year was one of recovery after famine and epidemic disease.

The chief cause of admission was ague, and then, with a long interval, came dysentery, venereal disease, and non-pneumonic respiratory disease. Though there were raised admission ratios from influenza, malarial fevers, and respiratory diseases other than pneumonia, there were lessened ratios from cholera, small-pox, enteric fever, bowel complaints, and venereal disease. Ague caused 43 per cent. of the total admissions. The chief causes of death were pneumonia and remittent fever. Among the diseases which caused increased mortality were ague and tubercle of the lungs; but mortality from cholera, diarrhœa, dysentery, and debility was reduced. Pneumonia caused over 25 per cent. of the total deaths, and intermittent and remittent fevers nearly 21 per cent. The total number invalided for discharge was 1,566 and the chief causes of invaliding were debility, ague, rheumatism, and venereal disease.

The China Expeditionary Force and the China Garrison enjoyed good health (Tables XXVIII and XXIX), but that of the Ogaden Punitive Force and of the still smaller Ad Dariga Field Force was not so good.

If Table XXVI be compared with Table I, it will be seen that the native soldier suffered less from enteric fever, simple continued fever, diarrhœa, hepatic affections, and venereal diseases; and more from each of the other causes of admission given than his European comrade. He also suffered more from scurvy. These relations are usual, except with regard to tubercle. The comparison may be carried into further detail with the aid of Table LIII. See also Appendix Q to Section IV.

31. Of the commands, Bombay was the most unhealthy, but it was healthier than in 1900. It had the highest mortalities from ague, remittent fever, pneumonia, dysentery, diarrhœa, hepatic abscess, and debility. The highest mortality from cholera and tubercle of the lungs was in Bengal; the highest from enteric fever (on account of the number of Gurkhas) and from non-pneumonic respiratory diseases, and the second highest from pneumonia, in the Punjab; and the highest from small-pox in Madras.

32. The most unhealthy group for the decennium was Assam; but for 1901, the Hills. Burma Coast had the highest admission rate from dysentery and hepatitis, the second highest from venereal disease, and the lowest from ague, non-pneumonic respiratory diseases, and diarrhœa; Burma Inland the highest from ague, simple continued fever, respiratory diseases other than pneumonia, and the lowest from tubercle of the lungs; Assam the highest from enteric fever and abscess of the liver, the lowest from venereal disease, and no pneumonia; Bengal-Orissa the highest from scurvy; Gangetic Plain the highest from cholera and tubercle of the lungs; Deccan the lowest from dysentery; Western Coast the highest from diarrhœa and venereal disease; Southern India the highest from small-pox and the lowest from remittent

fever; the Hills the highest from influenza, remittent fever, and pneumonia, and the second highest from tubercle of the lungs, non-pneumonic respiratory diseases, and scurvy. Scurvy was also high in Indus Valley, and pneumonia in Upper Sub-Himalaya. For the decennium too the highest influenza and remittent fever ratios were in the hills, the highest enteric fever ratio in Assam, the highest ague ratio in Burma Inland, and the lowest remittent fever ratio in Southern India.

33. The highest death-rates of the large stations throughout India with a strength of not less than 1,000 were those of Bombay, chiefly from pneumonia, plague, dysentery, and ague; of Meean Meer, chiefly from pneumonia and remittent fever; of Dera Ismail Khan, chiefly from pneumonia and ague; of Edwardesabad (Bannu), chiefly from pneumonia and remittent fever; of Abbottabad, chiefly from tubercle of the lungs; and of Bakloh, chiefly from tubercle of the lungs and remittent fever. Among the regiments mentioned in the following paragraphs the most unhealthy were the 28th Punjab Infantry, the 21st Madras Pioneers, and the 17th Bengal Infantry on the frontier, the 13th Bombay Infantry at Deesa, the Wing of the 12th Burma Infantry at Keng Tung, and the 28th Bombay Pioneers at Kirkee and on the frontier. The two Pioneer regiments were at work on the Khushalgarh-Kohat-Thal Railway. All these regiments suffered from ague, the Madras regiments from simple continued fever in addition, the 28th Bombay Infantry from diarrhoea, and the 28th Punjab Infantry from remittent fever and pneumonia.

34. The influenza admission ratio was more than ten times greater than in the previous year, though not so high as in 1899. February was the maximum month in 1901, but for the 12 years' period April, with the minimum in October. The highest numbers were at Malakand, Bakloh, Dharmsala, and Benares in India, and among the troops serving in Mauritius. All these outbreaks were compact. The native troops suffered slightly more than the European troops, but much less than the prisoners. The type of the disease appears to have been mild.

35. There were only 35 cases of cholera with 19 deaths, against 666 cases (641 admissions) with 390 deaths in the preceding year; and the admission and death-rates were, of course, much reduced, and also much below the decennial rates. Cholera reached its maximum in August, and occurred in eight months of the year. The most important outbreak was that of only 12 cases at Fyzabad, of which 11 occurred in the 6th Bengal Infantry and one in the 7th Bengal Lancers. The first man affected in the former had visited the city, where the disease was prevalent, but no exact connexion was discovered; and the man affected in the Lancers had, against orders, visited the infantry lines while the cholera cases were occurring. The three cases in the 1st Bengal Lancers occurred while cholera was prevalent in Lucknow, but no connexion was established between the civil and the military cases, and the possibility of the latter having been really due to ptomaine poisoning is mentioned. There was no cholera in Umballa when the three cases in the 40th Pathans were seen; and it is stated that they were caused by unsound fruit, and that as soon as fruit was forbidden no more cases occurred. But the usual precautions, such as permanganating the water-supply, etc., had been adopted. As to the other regiments affected, the only point mentioned, when anything is said at all, is the presence of the disease in the neighbourhood.

Stations. Tables XXVIII, XXIX, and XXX. Regiments.

Influenza. Appendices J and M. Table XXXI.

Cholera. Appendices L and M. Tables XXIX and XXXI.

36. There were 55 admissions (58 treated) from small-pox with 4 deaths against 78 (86 treated) with 4 deaths in the preceding year, and the admission ratio was below the decennial. The highest numbers were 9 at Bangalore with 2 deaths, 7 at Bannu without death, 6 at Quetta with 1 death, and 5 at Dera Ismail Khan with 1 death. The highest regimental number was 5 in the 4th Sikhs at Bannu. All had good marks of vaccination, and all recovered. The disease came from the bazaar. Two of the men infected in the 2nd Moplahs were pitted from a previous attack; while the third contracted the disease after he had joined the regiment, but before his vaccination had been carried out.

37. To ague was due over 43 per cent. of the sickness of the native army. Six of the geographical groups had lower ratios, and six higher; but the total increase was greater than the total decrease. The most malarious group was Burma Inland, and it was more malarious than in 1900; but the greatest increase of the ague admission ratio was in Assam. The most malarious month was October, and the least malarious February. The stations with strengths over 100 which had ague ratios higher than 1,000 per 1,000 were, in order, Keng Tung, Kajur; Kach, Deesa, Wana, Bhamo, Rajkot, and Saidgi. The highest admission numbers were recorded in the 21st Madras Pioneers and the 28th Bombay Pioneers, which were employed on railway excavation in malarious valleys on the north-west frontier. The disease in the latter seems to have been of more severe type than in the former. Anopheles mosquitoes were found in the tents, and their larvae in the neighbouring swamps. The 17th Bengal Infantry was in camp most of the year, in great heat at Suliman Khel, and the men had to make entrenched camps and build shelters for themselves. No explanation is given with regard to the 13th Bombay Infantry at Deesa. The 28th Punjab Infantry was at Wana, and the anopheles was present, though its breeding places were not discovered. In the report for the Wing of the 12th Burma Infantry at Keng Tung it is noted that the situation is a lowlying rice-growing valley shut in on all sides by high jungle-covered mountains; that great meteorological variations take place; that the men are badly housed, strange to the place, not careful, and that some had already suffered from fever on the march to Keng Tung.

Remittent fever caused nearly 12 per cent. of the total deaths, and prevailed most in July and least in March, though there was no month that had fewer than 80 admissions. The maximum and minimum of the previous year had been in October and February. The death-rate was high but lowered, the admission rate low but raised. It was most prevalent in the Hills, Bengal-Orissa, and Western Coast. The greatest numbers of cases were at Kila Drosh and Kohat. The 28th Punjab Infantry at Wana and the 10th Madras Infantry at Maymyo had the highest numbers; but in the latter the number had subsided since it left Keng Tung. Next came regiments at Bombay, Almora, Datta Khel, and Alipore.

The prophylactic use of quinine does not yet seem to be sufficiently general, sufficiently systematic, early enough begun, or long enough continued.

The 21st Madras Pioneers on the frontier and the 33rd Madras Infantry at Thayetmo had the most cases of simple continued fever. In the report of the latter regiment it is stated that they must be attributed to heat, exposure to the sun, and change of season, and that during the prevalence of simple continued fever there was hardly any case of ague. In the 4th Rajputs at Agra 52 cases

were attributed to heat and 2 to malaria, but the medical officer writing the report is of opinion that probably all were malarial.

38. The admission rate from enteric fever was only half as high as in the preceding year, and the death-rate was also diminished. The ratios for native troops and prisoners are very unlike those for European troops.

Enteric Fever.⁽¹⁾ Appendices
L, M and G. Table XXXIII.
Malta Fever. Table LIII.

The statistics do not yet reflect the opinion, so prominent of late, that enteric fever is quite common among natives; and so long as medical officers return few cases, the statistical tables cannot show many. As a matter of fact, in spite of the way in which the attention of medical officers has been called to the possibilities, the number of cases and the ratio were lower than in seven out of the ten years preceding, and below the averages. The years of most enteric fever were 1892, 1897, and 1900. As usual, the total fever mortality (Appendix Q, Section IV) of native troops was considerably below that of European troops, as 30:49; which seems to indicate that native soldiers really succumb to enteric fever less than their European comrades.

To his 11 cases, mentioned in last report, Lamb has added 10 diagnosed by the serum test, all occurring in Poona in the space of 9 months; 8 Hindus (6 Brahmans), 1 Parsee, and 1 native christian. In Calcutta too, L. Rogers met with 13 cases, diagnosed by the same method, in five months; high class and low class, native christians, Hindus, and Mussulmans; and one showed marked typical lesions on postmortem examination. A fourteenth case was subsequently tested with a positive result; and then occurred an outbreak of 7 cases in a high class Hindu family, children from 5 to 18 years of age, and the blood of the youngest was sent for examination, and gave the reaction. Some regimental cases similarly tested are noticed below. The value of such observations depends, of course, on the trustworthiness of the serum reaction as a test, on the correctness of the technique adopted, and on the competency of those who employ it. The best testimony to the value of the reaction is perhaps the fact that those who use it most have most confidence in it. But it must be conceded that unexpected results are often obtained, some explicable, some not; and that both in Europe and in India experts make mistakes. At the recent meeting of the British Medical Association, Manson related an instance in which he submitted a case of doubtful fever to three experts: one affirmed that the blood gave the reaction of Malta fever, a second declared that it was from a person suffering from typhoid fever, and a third that it was neither of Malta fever nor of typhoid fever. Manson, therefore, asks investigators not to place too great reliance upon serum tests in cases of doubtful forms of illness. Köhler probably goes too far in denying the specific character of the reaction, but his criticisms are calculated to do good by preventing enthusiasts from going too fast. Other cases here and there have been reported among natives of India, not all tested by the serum reaction. The disease is said to be rare in the natives of Egypt and Algeria, in the black and red troops of the United States' army, and in the native and halfcaste soldiers of the French army; and from 40 testings of the blood of Arab children, of which only 2 were positive (5 per cent.), Brault concludes that no support is lent to the view that adult immunity depends upon a prevalence of the disease in childhood. But the difference of race makes it desirable to have similar observations made independently for India.

In the whole native army of India 26 admissions (27 treated) with 15 deaths were returned, as against 54 (55 treated) with 18 in 1900. Manipur, Abbottabad, and Ferozepore had the highest numbers of cases. To the total 16 regiments

contributed, the maximum being 6 in the 3rd Bengal Infantry at Manipur. The medical officer states that in all the diagnosis was confirmed by the serum test, that the blood of three men who had been in hospital the previous year for "remittent fever" was also found to re-act with the enteric bacillus, and that he has no doubt that mild cases occurred without being detected. In no case was the origin of the disease traced, though in six water or milk was suspected in a general way. The infection in two cases appeared to have been contracted in hospital, and in one on the march. One of the men affected was a lately joined recruit, and another had only a month's service. In only two of the fatal cases, at Abbottabad, was a postmortem examination obtained, but the result in both confirmed the diagnosis.

There were returned 6 cases of Malta fever, 3 from the 40th Pathans, 1 at Umballa and 2 at Jhansi, and 1 each in three other regiments. The medical officer of the 40th Pathans states that the three cases were all diagnostically confirmed at the Kasauli Pasteur Institute by the serum test; and that in addition three or four doubtful cases occurred. In former volumes instances have been cited of the diagnosis of Malta fever in natives of India, and recently that disease has been reported to occur in Assam. (See Section VI under Fevers).

39. In 1901 there were 70 cases (69 admissions) of plague with 41 deaths, against 56 with 29 in 1900, 76 with 45 in 1899, and 94 with 58 in 1898. The highest numbers for regiments were 12 in the 15th Madras Infantry at Belgaum and 9 in the 1st Madras Lancers at Bellary. The other regiments affected were stationed at Bangalore, Poona, Bombay, Karachi, Ahmedabad, Benares, and in Mauritius, in all of which places the civil population was suffering. In the regiment at Belgaum only 3 of the cases occurred after the regiment had been reinoculated, some of the men for the third time; and in the regiment at Bellary no inoculated men were attacked. The origin of the two cases which occurred in the 19th Madras Infantry in Mauritius was not apparent, as places where plague prevailed were strictly out of bounds, and no dead rats were found. As the sepoy had been ordered to wear boots at all times, it was interesting to note, says the medical officer, that one of the men affected had the bubo axillary and the other cervical.

Cerebrospinal fever increased from 3 admissions with 2 deaths in 1900 to 28 admissions with 21 deaths in 1901. The highest numbers were 6 in the 8th Bombay Infantry at Delhi, 5 in the 47th Sikhs at Sialkot, 4 in the Chitral garrison, and 3 in the 32nd Pioneers at Jhelum. There were also 2 at Lucknow, 2 at Miranshah, and 1 each at Datta Khel, Jubbulpore, Kamptee, Bannu, Sialkot, and Peshawar. The medical officer of the 5th Madras Infantry at Jubbulpore notes the occurrence of the disease in the Central Prison at that station, and there was a suspicious case of meningitis in the jail at Delhi. In the report on the Chitral garrison the medical officer notes that the disease was epidemic in the lower part of the Chitral valley in the early part of the year, having apparently spread from Asmar, where a similar disease was prevalent, according to bazaar rumour; and that it was also epidemic to the west of Chitral, in Kafirstan, as he had seen some cases in the Utzen valley, and had been told that a large number of persons were dying of the same complaint in the interior. In the pus from the brain and cord of one of the Jhelum cases the Chemical Examiner found the diplococcus. In the 2nd Punjab Infantry overcrowding was considered to be a factor, but there was no overcrowding at Delhi, where the turning over of earth in building operations was supposed to have had possibly something to do with the outbreak. The truth is that the disease is present in the general population. See also Section IV.

40. The ratio of scurvy admissions was 3·2, the same as in 1900. There were in all 391 admissions against 398 in the preceding year, 47 per cent. in the Bombay Command, and 36 per cent. in the Punjab Command. Thirty-five per cent. occurred in the Hills and 20 per cent. in Indus Valley. Again, 12 per cent. occurred at Waziribagh, and 6 per cent. at Kohat and Mir Ali Khel. The 23rd Bombay Infantry at Mir Ali Khel and Waziribagh, which had 78 cases, is said to have suffered from the hardships and privations of field service, the men being deprived of their usual diet, while the want of fresh vegetables was severely felt. Limejuice did not seem to have much effect on the disease, but an issue of fresh meat was found most beneficial. The 18 cases in the 20th Bombay Infantry at Alipore occurred mostly in recruits in October and from company messes where the food contained excess of starch without sufficient nitrogenous material. Meat was issued oftener, and potatoes every day. Arrangements were made to enable the men to obtain plenty of fresh milk cheap, the recruits' diet was increased, and iron and chloride of calcium were exhibited when necessary. All traces of the disease were thus removed. At Nilikach the 9th Bombay Infantry had 13 cases due to the want of fresh vegetables, and limejuice was given "with some benefit." Meat and vegetables are expensive at Aden, and there the 5th Bombay Infantry had 12 cases, and the Bombay Sappers and Miners 6. The Jullundur Mountain Battery at Sarwekai had 9 cases from want of fresh vegetables, but the disease soon disappeared when limejuice was issued.

Munson points out the immanence of scurvy under any conditions where a proper nutritive standard is departed from; also that the disease has a great respect, for military rank, and rarely occurs in officers, owing to their better circumstances. The personal factor may also have some influence. It is well known (See references in the report for 1899) that at present there are two opposing theories of the causation of scurvy: one that it is simply due to the omission of certain articles or salts from the dietary, an omission which, according to Wright, diminishes the alkalinity of the blood, the other that it is produced by organisms. Among those who believe the latter there is again a difference of opinion as to the mode of action of the organisms. Lewine, for example, holds that scurvy is the result of a direct attack by a bacillus of the hæmorrhagic septicaemic group; Koettlitz strongly supports the opinion that it is a chronic ptomaine poisoning; while Stockman suggests that the antiscorbutic element in food is destroyed by putridity. Lamb from an examination of the blood, etc., of natives of India affected with the disease, failed to find support for the theories of Vaughan and Harley, of Wright, or of Liston. It is possible that the element of freshness is as important for vegetable as for animal rations; and that scurvy in the native army might be reduced by securing the freshness of all supplies, of flour as well as of vegetables. The suggested necessity for freshness of the limejuice was touched upon in the report for 1900, paragraph 40, page 36.

41. There was a rise in the admission and death-rates from tubercle of the lungs, all the commands except Madras sharing in the rise. Of groups, Gangetic Plain and Hills had much the highest admission ratios; and of commands, Bengal and Punjab the highest death ratios. Six out of the eight highest admission numbers were in Gurkha regiments, and two in Bengal Lancers. The two highest numbers were in the 2nd Battalion, 5th Gurkhas at Abbottabad, and the 1st Bengal Lancers at Lucknow. No explanation is given with regard to the first,

Tubercle of the lungs, Appendices L, H, and Q. Tables XXVI—XXIX.

while the tuberculosis of the second is said to have been the result of service in China, especially in Hong Kong. The medical officer of the 43rd Gurkha Rifles at Shillong, and the medical officer of the 2nd Battalion 2nd Gurkhas seems to agree with him, states that Gurkhas have undoubtedly a special susceptibility partly hereditary and partly acquired, the latter being due to absence of domestic cleanliness. To prevent the men infecting their companions and the barrack rooms, immediate reporting of the cases was insisted on, and the early invaliding of hopeless cases to their homes in Nepal. The medical officer of the 2nd Battalion 2nd Gurkhas at Dehra Dun mentions defective ventilation as a factor in causation; and the medical officer of the 1st Battalion of the same regiment at the same place records lessening of the numbers admitted as probably due to improved ventilation.

As non-tubercular phthisis were returned 13 cases with 3 deaths. This was only about half the number in the previous year, and it is to be hoped that it will be still further reduced in future.

42. Notwithstanding the increase of influenza, there was a fall in both the admission and the death-rate from pneumonia. In 1901, pneumonia caused over 25 per cent. of the total mortality, and was, as usual, the chief cause of death. The admission ratio is usually greatest in Groups VII and XII; but in 1901, though Group XII occupied the first place, Group VI came second, and Group VII attained only the fourth place. In all these and for India as a whole pneumonia was most prevalent in the cold months, and especially in December and January. Influenza, on the other hand, was most prevalent in February-April. Admission ratios over 50 per mille appeared among the troops employed on the Mahsud Blockade, and at Sibi, Meean Meer, Wana, and Datta Khel; and death-rates over 20 per mille at Wana, Kherwara, Sirdarpore, Sarwekai, and Datta Khel. The highest number of cases was in the 40th Pathans at Meean Meer, malarial debility being assigned as the predisposing cause, as it was also in the case of the 3rd Sikhs and the 2nd Punjab Infantry at Datta Khel. No cause could be given for the occurrence of the cases in the 28th Punjab Infantry, but it is noted that the type was septicaemic. The cases in the 21st Punjab Infantry were attributed to exposure on the line of march. The 2nd Punjab Infantry had suffered exposure owing to the Mahsud Blockade operations; and it is noted that the pneumonia of the Tochi Valley is of a peculiarly virulent kind, and that even the battery mules suffered severely from croupous pneumonia. According to Munson, it is a matter of common knowledge that outbreaks of this disease among soldiers often occur at the same time as epidemics of pneumonia or influenza in cavalry horses with which the men come in constant contact.

Other Respiratory Diseases were most prevalent in the Punjab Command, and in the Burma Inland and Hills groups. The admission rate was high among the troops employed on the Mahsud Blockade. The stations (leaving out, as usual, those with strengths under 100) with admission ratios over 100 per 1,000 were Datta Khel, Wana, and Jandola; and with death ratios over 5 per 1,000, Sibi and Datta Khel. The 3rd Sikhs at Datta Khel, a place reported to be exposed to sharp cold wind, had much the highest number of admissions; and the 28th Punjab Infantry at Wana came next. The medical officer of the 33rd Punjab Infantry at Ferozepore attributes the increase to the dustiness of the season from want of rain, and has always noticed that

Pneumonia⁽³⁾ and Other Respiratory Diseases.⁽⁴⁾ Appendices L, M, and K. Tables XXXVII and XXVI—XXIX.

winter rain and pneumonia vary inversely. It is possible that the causation of pneumonia and bronchitis may not be so distinct as is usually supposed, as Gromakowsky reports that he found the pneumococcus in primary chronic bronchitis almost as often as in pneumonia.

43. The admission and death-rates from dysentery in 1901 were low. All the groups had lowered admission ratios, except Burma Coast, Indus Valley, and Southern India; and the increase in these three was not very great. The troops employed on the Mahsud Blockade had a very high admission ratio, and a considerable mortality. The only stations of over 100 strength which had admission ratios above 100 per 1,000 were Jandola, Sarwekai, Wana, Kajuri Kach, Datta Khel, and Waziribagh, all on the frontier, all without mortality, except Wana and Waziribagh, in the latter of which it reached 4 per 1,000. The admission ratio was also high in Mauritius, the cases occurring mostly in Port Louis. The 23rd Pioneers at Kharab Kot, etc., and afterwards on the blockade had the highest number of cases, ascribed to chills, errors of diet, and bad water. Next came the 17th Bengal Infantry, which suffered from hard work and exposure at Suliman Khel. Dysentery prevailed more in the second-half of the year than the first, the maximum months being December (Mahsud Blockade) and October (as in 1900).

The diarrhoea admission ratio was reduced, and the mortality much reduced. The greatest prevalence was, as in the previous year, in Western Coast. The highest ratio in Western Coast was that of Bombay; but the ratios of Sibi, Nowshera, Peshin, Wana, and Kajuri Kach were still higher. The only cause mentioned is for Mir Ali Khel, where the sulphates of sodium and magnesium were present in all the water.

44. While among European troops an average strength of 60,838 gave 16,789 admissions, in the case of native troops an average strength of 122,806 gave only 4,210 admissions. In other words, there were only 34 admissions for every 1,000 men among native troops, against 276 for every 1,000 among British troops.

The admission rate for India was 8.2 per 1,000 of strength less than in 1900: nearly as much below the ratio of 1900 as that was above the ratio of 1899. There were 8 deaths and 128 invalidings directly due to venereal disease. Of the commands, Bombay had the highest ratio; but all the commands had lowered ratios, and the decrease was greatest in the Hyderabad Contingent and Bombay, which had been affected by the diseased famine women in the previous year. Bombay had the highest ratio, of all the commands, from each form of venereal disease. For India the ratio of each form of disease fell. In all the commands the ratios of native troops were much lower than those of European troops.

As usual, the Gurkhas suffered much, being strangers in the land and not given to washing after coition. In some regiments the recruits were disproportionately affected, especially with gonorrhoea and soft chancre. In some cases return from field service was the occasion for indulgence which resulted in disease. The gonorrhoea cases of one regiment occurred while the regiment was in China. Among the worst places for venereal disease were Raipur and Sambalpur, the abandonment of which as military stations has been sanctioned.

Dysentery and Diarrhoea. Appendices L and M. Tables XXXVIII, XXVI—XXIX.

Venereal Diseases. Appendices M and I. Tables XXVIII and XXIX.

45. All the 108 cases of beri-beri (against 145) occurred in Madras regiments, 46 in the peninsular part of the command, 49 in Burma, 11 at Colombo, and 1 each at Singapore and in Mauritius. The 8th Madras Infantry at Rangoon had the highest number of cases, 48 in two separate outbreaks. The medical officer in a long and careful report attributes these to the consumption by the men of impure rice, water in which such rice was washed or boiled, water contaminated by the preceding, or impure rice liquor. In the sediment of the water out of four wells he discovered raw and boiled starch grains, and was about to recommend the use of permanganate of potash for the wells. That one regiment was infected while another escaped, was considered to be due to the dampness and darkness of the kitchens of the former; that recruits were specially liable to their want of cleanliness in eating; that Hindus were attacked in greater proportion than Mussulmans, to the frequent washing by the former of their cookhouse floors with cowdung and water. The channel of infection was believed to have been the alimentary canal; though the possibility of infection through abrasions of the skin, through the lungs, or by the bites of mosquitoes is discussed, as well as the effect of overcrowding and want of ventilation. The writer of the report was probably influenced by the work of Captain Rost, who believes himself to have proved by experiment that rice and its preparations may convey into the human body a bacillus which is the cause of the disease. Sambon also is of opinion that rice may be a vehicle of a specific infection which lives and works within the patient's body. But there are authorities who are equally convinced that rice has nothing to do with the causation of beri-beri. Of these Manson is the chief, who at the recent meeting of the British Medical Association explained his well-known views at length, quoting the experiences of Travers, Stanley, and Bolton in support of them. He believes that the immediate cause of beri-beri is a toxin produced by a living germ in some culture medium outside the human body; and that it does not enter the human body in food or water, but is conveyed to man either by the air, or through the skin by contact, or by means of some insect or other animal which inserts it under the skin, or by a combination of some of these ways. Direct infection from man to man also has its advocates; Ross has brought forward some more instances of the presence of arsenic in the hair of early cases of beri-beri; while Ashmead believes that the disease is due to carbonic acid poisoning and lack of ventilation. Finally, a view very closely related to one of the modern theories of the causation of scurvy has been enunciated by Uchermann in explaining the results of a Norwegian committee of investigation; namely, that beri-beri is a multiple neuritis due to a toxin intoxication by tainted vegetable or animal food, the vegetable form corresponding to Asiatic beri-beri, and being usually due to the eating of tainted rice. A suspicion has been expressed, apparently with some justification, that the name beri-beri as used by various observers does not always denote one and the same disease.

46. The admission rate from guinea-worm fell from 5·7 to 4·6, and the number of cases from 708 to 560. By far the largest number of cases occurred in Group VIII, but Group IX, instead of being second, was only fourth, the second place being taken by Group VI. Of the total number of cases 13 per cent. declared themselves at Kherwara, between 5 and 6 per cent. at Bareilly, between 4 and 5 per cent. at Sirdarpore, and between 3 and 4 per cent. at Meerut. The

Guinea-worm. Tables XXIX and LIII.

Mewar Bhil Corps at Kherwara had much the highest number, occurring mostly in April, May, and June. The medical officer is of opinion that the parasite gains entrance through the skin of the legs when men are wading. The Sirdarpore cases were not contracted there, but at the outposts. At Erinpura the infection prevailed in the dry weather when good drinking water was scarce.

47. During the ten years 1891-1900 there were 162 cases of suicide, or an average of about 16 per annum. There were 22 in 1901, of which 13 were by gunshot, 3 by drowning, 3 by poison, 1 each by hanging, cutthroat, and abdominal stab.

Suicide. Table LIII.

Papers and Books referred to in Section III.

For explanation of abbreviations see end of preceding section.

- (1) Lamb in I. M. G. of February 1902, page 48; L. Rogers in I. M. G. of January 1902, page 6, and in B. M. J. of 5th April 1902, page 827; Dykes of the 3rd Bengal Infantry in I. M. G. of December 1901, page 449; Manson, reported in L of 23rd August 1902, page 544; V. J. XXXVI, 2-1, pages 5 to 24; Hoffmann in H. R. XII, page 833; B. M. J. of 22nd March 1902, page 715; L of 26th April 1902, page 1179; L of 24th May 1902, page 1688; Zupnik, quoted in D. M. W. XXVIII, L-B., page 207; Withington quoted in C. B. XXX, page 314; Shattuck quoted in C. B. XXX, page 314; Maude in B. M. J. of 7th June 1902, page 1401; J. P. P. G. IV, page 596; Rouget, quoted in C. B. XXX, page 882; Nicolle and Trenal in A. P. XVI, page 584; Defalle in A. P. XVI, page 612; Köbler in Klin. Jahrbuch. VIII, quoted in C. B. XXX, page 585, and in V. J. XXXVI, 1-3, page 461; Nott in I. M. G. of December 1901, page 451; Stokes in I. M. G. of February 1902, page 77; Adie in I. M. G. of August 1902, page 314; I. M. G. of September 1902, page 369; B. M. J. of 23rd March 1902, page 744; Munson, *Military Hygiene*, pages 688 and 861; Brault, quoted in I. M. G. of March 1902, page 107.
- (2) Munson, *Military Hygiene*, pages 761 and 762; Carpenter in L of 3rd May 1902, page 1246; Lewine quoted in B. M. J. of 2nd November 1901, epitome-page 72; Koettlitz in B. M. J. of 8th February 1902, page 342; Stockman in Gibson's *Textbook of Medicine*, reviewed in B. M. J. of 18th January 1902, page 150; Lamb in L of 4th January 1902, page 10; Discussion reported in L of 23rd August 1902, page 539, and in L of 4th October 1902, page 1023.
- (3) Munson, *Military Hygiene*, page 728.
- (4) Gromakowsky in C. B. XXXII, page 212.
- (5) Rost in I. M. G. of July 1902, page 270, and in B. M. J. of 20th September 1902, page 834; Sambon in B. M. J. of 20th September 1902, page 835; Manson in B. M. J. of 20th September 1902, page 830; Travers in J. T. M. of 1st August 1902, page 231; Stanley in J. H. II, page 369; Bolton in B. M. J. of 23rd August 1902, page 248; Report on the Health of the Navy 1900; Cantlie in B. M. J. of 20th September 1902, page 838; Ross in B. M. J. of 20th September 1902, page 837; L of 15th March 1902, page 786; Bertrand in A. P. XVI, page 553; Ashmead in Medical Herald of February 1901, quoted in J. T. M. of 1st November 1901, page 365; Uchermann in L of 26th July 1902, page 225; Daniels in B. M. J. of 20th September 1902, page 838; Saneyoski, quoted in J. T. M. of 15th November 1901, page 386; Manson in J. T. M. of 1st October 1902, page 302.

SECTION IV. JAILS OF INDIA.

48. The year 1901 was hotter and slightly drier than usual. The monsoon extended inland very slowly, and retreated unusually early. Actual famine was present only in Gujarat and the Deccan; but many of the prisons were still overcrowded. Like the general population, the prison population improved in health in 1901 as compared with 1900.

India. Table XL.

The chief causes of admission to hospital were ague, dysentery, abscess, and diarrhœa. Among the diseases with raised admission-rates were ague, influenza, abscess, and respiratory diseases other than pneumonia. Ague caused 38 per cent. of the total sickness, and bowel-complaints 17 per cent. The chief causes of death were dysentery, tubercle of the lungs and pneumonia. Among the diseases with lowered mortality were cholera, diarrhœa, dysentery, debility, remittent fever, and pneumonia. Dysentery and diarrhœa caused 27 per cent. of the total deaths, tubercle of the lungs 14 per cent., and pneumonia 13 per cent.

Cerebrospinal fever continued to increase and spread.

49. The prisoners of Berar, the Central Provinces, the Andamans, Bengal, and Burma, had better health than in the previous year; and the difference was considerable in the case of Berar and the Central Provinces. The most unhealthy administrations were, in order, the Andamans, Bombay, and Bengal; and the three most healthy in order, Burma, Berar, and Madras. Of the former group, Bombay and the Andamans were worse than in the quinquennium. As compared both with the previous year and with the quinquennium, the year 1901 had increase of mortality in the Andamans from tubercle of the lungs and dysentery; in Assam from anæmia and debility; in Bengal from smallpox; in the United Provinces from cholera, tubercle of the lungs, and respiratory diseases other than pneumonia; in the Punjab from dysentery and debility; in Bombay from tubercle of the lungs, pneumonia, and other respiratory diseases; in Berar from remittent fever; in the Central Provinces from non-pneumonic respiratory diseases; and in Madras from tubercle of the lungs.

Thus four provinces, just mentioned, had increased mortality from tubercle of the lungs.

Some explanatory details with regard to the unhealthiness of individual jails are given in Table XLIV.

50. The rainfall was more than 49 inches greater than in the previous year, and more than 24 inches over the lustral average.

Andamans. The convict population has been steadily increasing for at least the last five years. The constantly sick and death-rates have decreased during the last three years, but not to anything like the same extent as the corresponding ratios of the troops and police than which they were in 1901 very much higher. Though for the Andamans some of the features of Appendix N are satisfactory (such as the reduction in remittent fever mortality), the crying fact remains that the mortalities from tubercle of the lungs and from dysentery, always an opprobrium of the Settlement, are still increasing,

The list of vegetables supplied is very poor in such as are of antiscorbutic value; but the number of admissions from scurvy, though three times greater than in the two preceding years, was not high in proportion to strength. Possibly, however, improvement in the antiscorbutics might lessen the mortality from dysentery. As usual, fever was specially prevalent in the rainy season, the great increase in admissions to hospital coinciding with some very stormy and wet weather which occurred in June and July. There was a great epidemic of malarial fever in the female jail, in which the disease was characterized by its resistance to large doses of quinine, and by the occurrence of three or four relapses of four or five days' duration at intervals of ten to fourteen days, crescents being often very numerous in the blood. Mosquito nets were found more efficacious than quinine. The medical officer, noting the extreme frequency with which intestinal ulceration is met with in fatal cases of phthisis, considers it possible that in some cases the intestinal tuberculosis may precede the pulmonary, and may be grafted on repeated attacks of dysentery. Such a possibility calls for all the more energy in the efforts made to prevent dysentery. That disease was in several instances contracted in hospital from patients suffering therefrom. Measures were accordingly taken for the isolation of the sick, for the destruction of their excreta, and for the supply of boiled water to all prisoners, however far their work might take them from the main supply. These measures were only introduced late in the year, but are said to have been already attended by a considerable amount of success. The sputum and alvine discharges of phthisical patients are also now burnt, as well as the dysenteric stools, in the incinerators; and plans and estimates for a large ward for the isolation of phthisis cases have been called for, and a site chosen. It was time for such measures, as it has been shown above that mortality from tubercle of the lungs and from dysentery was higher than the quinquennial average and higher than in 1900. Epidemics of mumps and of influenza occurred.

51. The information afforded by the Inspector-General as to the health of his prisoners is extremely meagre. Overcrowding to a slight extent took place in the jails at Prome, Henzada, and Myanaung; but was quickly relieved by transfers to other jails. As in the previous year, the health of the prisoners was very good, and the death-rate was the lowest on record. But the scurvy admission-rate was higher than in any other province, and the cholera mortality was lower only than that of Madras. An epidemic of 20 cases of cholera with 12 deaths in the Insein Central Prison was referred to infected tobacco introduced by a prisoner sent in from a police lock-up without any intimation that he had for some time been in intimate contact with cholera cases. The origin of the four cases in the Paungdi jail was not traced, but cases were occurring within 3 furlongs of the jail. The admission-rate of Burma for tubercle of the lungs was above that of India. Of the convicts admitted into jail, over 14 per cent. confessed to the habitual use of opium.

52. Though the ratios were somewhat higher than in the preceding year the health of the Assam prisoners, like that of the general population, was, on the whole, good. There was diminished mortality from pneumonia, dysentery, and cholera; and increased mortality from diarrhoea and remitted fever. Very little useful information, outside of tables, is to be obtained from the administration report. The origin of the single case of cholera, in the Cachar jail, was not traced. Assam had the

highest mortality ratios from malarial fevers and from debility, and high mortality ratios from dysentery and diarrhoea; but it had no mortality from tubercle of the lungs, and the lowest admission ratio from the same.

53. The health of the Bengal prisoners improved, as did that of the general population. All the ratios given are favourable in Bengal. 1901, except that the smallpox mortality ratio was higher than that of the preceding year and quinquennium and the dysentery ratio higher than that for the lustrum. Overcrowding could "usually" be obviated by the use of temporary buildings and factories (an unsatisfactory device), or by transfer of prisoners, and building operations are in progress which will add largely to the jail accommodation. The Berhampore jail has been connected with the municipal water-supply, and the Midnapur jail is also getting a pipe-supply; but the eight Pasteur-Chamberland filters in the jails of the province are reported to be very liable to get out of order, and not to have proved a great success. Influenza was present in a number of the jails. At Bankipore the first prisoner attacked by cholera was a convict on outdoor labour; at Monghyr the first two cases were those of prisoners working outside who were believed to have got contaminated milk from a passer-by; and at Muzaffarpur and Hooghly the origin of the disease could not be traced. The results of the treatment of dysentery by izal were on the whole not encouraging. The dysentery of the Midnapur Central and Barisal jails was connected in the opinion of the Inspector-General with a deficient supply of fresh vegetables. Remarks by the medical officers on the dysentery of some other individual jails will be found in Table XLIV. Plague occurred in three jails, the most at Bankipore. Most of the cases of cerebrospinal fever appeared in the Bhagalpur Central Prison, but six other jails returned the disease. The results of quinine prophylaxis are given below under the head of ague. It is noteworthy of itself and in connexion with what was said under the head of the Andamans, that in four of the fatal cases of "dysentery" at Hooghly advanced tubercle of the lungs was found. In the Alipore Central Prison the prevalence of tubercle of the lungs was attributed to overcrowding and defective ventilation, and the measures taken in consequence are considered to have already met with some success. Modern scientific arrangements have been made in some jails for the treatment of the tuberculous sick and the protection of others.

54. Though the year was described as healthy, and the health of the general population as good with a slightly diminished mortality, the health of the prisoners was not so good as in the previous year. There was greater mortality from tubercle of the lungs, dysentery, and heatstroke; and there were fatal epidemics of cholera and cerebrospinal fever. Transfers on account of overcrowding were not so frequently necessary as in 1900. Efforts were made, as far as funds permitted, to improve the water-supply in the jails; and the supplies of the Lucknow and Benares Central and of the Jaunpur and Moradabad District jails are mentioned as requiring attention. The Benares District Jail is being connected with the municipal water-supply, but is not considered likely ever to be a healthy jail. Influenza was present in many of the jails; and cerebrospinal fever in five, that most severely affected being the Allahabad District Jail. Except in the Lucknow jails, cholera was successfully stamped out after the occurrence of a single case. The outbreak at Lucknow appeared to be part of a general epidemic which affected the city, the cantonments, and all the villages round the jails most

severely, long before a case appeared in the jails. No proof of the introduction of the disease by flies or in any other way was obtained. One result of the prisoners having to be in cholera camp in the rains was a high mortality from dysentery. The requisite accommodation for the isolation of dysentery patients was not always at hand, but increased attention was given to the destruction of their evacuations. The Inspector-General believes that "dysentery" is in many cases merely a terminal symptom of malarial cachexia and not due to specific dysenteric infection. But it would not be safe to act upon that belief, especially as it is quite as likely that a malarial cachectic may be an unusually easy prey to a dysenteric infection. A special ward for the treatment of tubercle of the lungs was erected in a large open space in the Agra Central Prison, and it is intended to provide similar wards in other jails. Meanwhile, open-air treatment and isolation are adopted whenever possible.

55. In the Punjab also the standard of health of the prisoners was lower than even in the previous year, though the health of the general population was on the whole improved. It may be noted, however, that 7 out of the 10 district jails with highest mortality were in districts stated by the Sanitary Commissioner to have had high mortality among the general population. Other explanations attempted by medical officers from purely local points of view were, with right, not considered satisfactory by the Inspector-General. The mortality ratios from tubercle of the lungs, pneumonia, and dysentery, though improved, were still high, while that from diarrhœa was higher than before. There was a good deal of pressure on the accommodation, but crowding was avoided by pitching tents outside the jail walls as far as practicable. Four jails have already received, and two more are about to receive, a piped water-supply. The distribution by hand in other jails is a danger to the purity of the otherwise generally satisfactory drinking water. During the year efforts were made to improve the personal hygiene of the prisoners, and the Allahabad system of filth disposal was introduced into most jails with success. In addition to the quinine prophylaxis of malaria, special attention was given to drainage and the disposal of spill-water, and steps were taken to fill up excavations in the neighbourhood of jails; but in these respects much remains to be done. In 13 jails there was no mortality from dysentery; but on the whole it caused a high mortality; and the Inspector-General rightly emphasizes the necessity for carefully detailed measures based on the belief that the disease is infectious. He considers also that one of the chief causes of pneumonia in jails is the habit of wrapping the head in the bedding during sleep. A special isolation ward in the Lahore Central Prison was sanctioned for the treatment of tuberculous patients; and elsewhere modern treatment was adopted as far as practicable. There was an outbreak of cerebrospinal fever in the Mung Rasul Central Prison.

56. The jails of Peshawar, Kohat, Bannu, Dera Ismail Khan, and Abbottabad did not come under the administration of the new province till the 9th of November 1901; but for convenience it was ordered that they should be taken as in that province the whole year; and for the same reason the quinquennial figures are given in the table. There was a considerable increase of mortality. Some of this was due to heatstroke, not always inside the jails; but there was also comparatively high mortality from smallpox, pneumonia, and dysentery. There was no cholera, and no mortality from tubercle of the lungs. The chief cause of

sickness was malaria, against which prophylactics were issued in the autumnal months.

57. Though the sick ratios increased, the prisoners of Bombay had, like the free population, a considerably reduced mortality. Famine was present only in Gujrat and the Deccan. Among the prisoners there was a substantially lowered mortality from bowel-complaints, but increased mortality from tubercle of the lungs and from respiratory diseases, especially pneumonia. All the jails except three were overcrowded, and worksheds and tents had to be used. The latter, when pitched outside the jail, are far preferable. Eight out of twelve overcrowded jails had a mortality over 33 per mille, and the tubercle in the House of Correction was suspected to be due to the overcrowding. Wherever necessary, special issues of food, clothing, and fever prophylactic medicine were made. There was no cholera. In the Bombay common jail 9 deaths took place from relapsing fever, a disease which also occurs in the city outside the jail. One death from cerebrospinal fever was returned in September from the Ahmedabad Central Prison.* Cases of plague occurred in five jails. There was much sickness and mortality from pneumonia in the Sind Gang and a good deal in the Ahmedabad Central Prison; and the Bombay administration had the highest pneumonia mortality ratio.

58. The general population of Berar is described as having been unusually healthy and free from epidemic disease, the aged and weakly having succumbed to the late famine. The health of the prisoners also greatly improved, and might "be described as normal." But tubercle of the lungs and pneumonia mortalities were still above their lustral ratios. An epidemic of influenza occurred in the Amraoti Central Prison. In Akola ankylostomiasis used to be mistaken for scurvy; and since the true nature of the disease was recognized, sickness and mortality from it have been diminished.

59. The population of the Central Provinces was healthier than in the preceding year, and the ratios for the prisoners were much improved, especially those of mortality. There were no deaths from cholera, smallpox, or remittent fever; and the ratios of death from tubercle of the lungs, pneumonia, dysentery, diarrhœa, and debility were reduced. But the Central Provinces was the administration that had the highest death-rate from diarrhœa, the mortality from respiratory diseases other than pneumonia was higher than in 1900, and cerebrospinal fever occurred in two jails. There was not so much difficulty as in the foregoing year about overcrowding. It is stated, however, that four jails had generally more prisoners than the sleeping barracks were meant to contain; but that the excess was satisfactorily housed in the worksheds at night; and that extramural camps were not necessary to relieve overcrowding. This use of worksheds cannot be called satisfactory from a sanitary point of view. The Punjab rule is a sound one that excess prisoners must be placed in tents outside the jail, unless special permission is obtained to treat them otherwise. The Jubbulpore Central Prison, with low admission and constantly sick rates, had high mortality, chiefly from bowel-complaints. The frequent occurrence of gangrenous dysentery in this jail has not been satisfactorily explained, and the matter is under investigation. Special inquiry should be made as to the nature, quality, issue, and cooking of the food.

*An outbreak followed in February, March, and April 1902; and the free population was also said to be affected at that time.

60. Though the prisoners of Madras had higher ratios of sickness than in the previous year, their mortality was, like that of the general population, lower. There was greater mortality from cholera and tubercle of the lungs, but less from pneumonia and dysentery. Six jails were overcrowded, the excess being accommodated in workshops and temporary sheds, or removed by transfer. The use of workshops for the purpose is objectionable (See under Central Provinces); and temporary buildings should not be erected within the jail enclosure wall, unless there is legitimate space for them. Cholera appeared in three central and five district jails; and evacuation, partial or complete, was in every case attended with the best results. In the case of the Vellore Central Prison the disease was restricted to a batch of new arrivals, and the great value of extramural quarantine was proved. The exact manner of introduction into jails was not traced in any case, though flies, rise of subsoil water, and disturbance of cholera-burial-ground soil are mentioned in connexion with causation. The first case at Berhampore occurred in a man who had attended the Sessions Court four days before. The Berhampore water had been pronounced suspicious, and was boiled before use. The prisoners continued to use the jail water after going into camp, a very risky thing to do; but no more cases occurred. An attempt, not very clear, is made by the medical officer to explain why there were so many cases of malarial fever in the Rajamundry Central Prison in 1901, but he does not explain why there were so many more than in the preceding year. Dysentery was also prevalent in the same jail, and was not stopped by antimalarial prophylaxis or by permanganating the water; and the treatment by izal was not found very satisfactory. The Trichinopoly Central Prison returned not only 30 admissions and 6 deaths from tubercle of the lungs, but also 40 admissions and 16 deaths from tubercle of the intestines. This seems to call for serious investigation. The Inspector-General doubts the diagnosis in at least some of the cases; and the medical officer gives no special explanation, though he mentions that his jail might be called a convalescent depôt, and recommends the provision of a special tubercle ward. In 1900 the same jail returned 19 cases of tubercle of the intestines.

61. The Mercara jail was much less healthy than in the previous year, the death-rate being more than three times as great. No less than 9 deaths from diarrhœa and 3 from debility took place in this small jail. No explanation is given. The Ajmer jail was much more healthy than in the preceding year of famine, there being a great reduction in dysentery mortality, and the ratios in general approaching more nearly to the normal of the quinquennium. The Quetta statistics were less favourable than in 1900.

62. In 1901 Group I had the highest admission ratio from malarial fevers; Group II the highest from tubercle of the lungs, and the lowest from non-pneumonic respiratory diseases; Group III the highest from influenza, and the lowest from tubercle of the lungs and pneumonia; Group IV the highest from dysentery and from diarrhœa; Group VI the highest from respiratory disease other than pneumonia; Group VII the highest from scurvy, pneumonia, and smallpox, and the lowest from influenza; Group IX the lowest from cholera; and Group XI the highest from cholera. For the quinquennium also Group I had the highest malaria ratio, and Group IV the highest dysentery ratio.

Madras.

Coorg.
Rajputana.
Baluchistan.

Geographical Groups. Appendix O. Table XLI.

63. There was an increase in influenza, this being the first year in Influenza. Appendices O and P. Table XLV. which the epidemic has broken its rule of waxing and waning in alternate years. It was most prevalent in the Assam, Central India, Gangetic Plain, and Upper Sub-Himalaya groups; and in the Assam, United Provinces, and Berar administrations. Fifty-eight jails were more or less affected; but by far the largest outbreaks were those in the Agra Central Prison, the Bareilly District Jail, the Fatehgarh Central Prison, and the Bareilly Central Prison. Besides these, six jails had from 110 to 184 cases each. There were two distinct outbreaks at Cawnpore.

64. There was a considerable decrease of both morbidity and mortality from cholera, and the death-rate was lower Cholera. Appendices N, O, and P. Table XLVI. than the quinquennial and decennial means. As usual, there was no cholera in the Andamans; and there was none also in the Punjab, the North-West Frontier Province, Bombay, and Berar. Much the highest admission ratio was in Madras administration, and in the Southern India and Western Coast groups. Cases were returned from 30 jails; but the highest numbers were 46 in the Madura District and 41 in the Lucknow Central jails. The maximum prevalence was in January (Madura) and in July-September. The circumstances under which certain of the outbreaks occurred have been noticed above in the paragraphs regarding administrations. The experience of the year shows the benefit of keeping new prisoners for a season in observation cells; the desirability of some similar arrangement for prisoners working outside the jail, or attending court, at times of cholera prevalence; the benefit, not always quite immediate, of movement into camp; the non-success, in one case, of permanganating and boiling the water. As change of water-supply is supposed to be one of the chief advantages obtained by movement out into camp, the example of the Berhampore jail officials in supplying the camp with water from the evacuated jail should never be followed.

65. There was a decrease in the admission and death-rates from small-pox; and there were 63 cases with 10 deaths Small-pox. Appendices N and O. Table XLIII. against 116 and 14 in the preceding year. The worst figures are those of Dera Ismail Khan, 17 cases with 5 deaths, Ahmedabad 11 cases, and Hyderabad 9 cases with 1 death; but there were only three other jails with more than 2 cases.

66. Of the total number of admissions ague furnished about 38 per cent., and the ratio to strength was slightly increased. Ague (?). Appendices O and P. Table XLIX. As usual, October was the most malarious month, and February one of the least malarious. The most malarious groups were, as before, I, which includes the Andamans, and VI; and the most malarious administrations, as before, the Andamans and the Punjab. Of these, Group VI and the Punjab had higher ratios than in the previous year. In the Andamans the forms of parasite most commonly met with were, in order of diminishing frequency, the unpigmented quotidian, the tertian, the malignant tertian, and the quartan. The outbreak in the female jail has been mentioned above. For thirteen months statistics were kept of the effect of the prophylactic issue of quinine on the inmates of the female jail. The results were that not the slightest benefit was derived from the administration of 3 and 4 grains daily, but that the administration of 40 grains a week produced a decided diminution in the percentage of fever cases. Another experiment was made by making a number of women sleep always under a large mosquito net; and this method was "financially a great

success, as it stopped the fever at a much less cost than quinine." In most jails in Bengal quinine was given as a prophylactic for part of the year; but the extent of the observations and the rigidity of the conditions under which they were made were not such as to yield convincing results. In one case it was found that, whereas 5 grains had failed, 15-grain doses twice a week were successful. This corresponds with the Andaman experience. The reports submitted by officers selected in the Punjab to carry out experiments on the quinine prophylaxis of malaria point to the conclusion that when administered systematically according to Celli's method, that is, one to one-and-a-half grammes every fifth or sixth day, the drug is capable of affording a large degree of protection. It gave good results also when combined with iron, and in one jail arsenic and iron without quinine were found effective. Lately, in Italy, Grassi has reported better results from quinine combined with citrate of iron and arsenic than from quinine alone. The opinions of officers in Madras were divided as to the efficacy of medicinal prophylactics. On the whole, with some honourable exceptions, specially in the Punjab and in Bengal, there seems to have been still a want of system and earnestness in the Indian experiments. It is noteworthy that the officers who made their trials in the most scientific manner, got the results most favourable to prophylactic medication.

67. There was a decrease of sickness and mortality from remittent fever, Remittent fever. Appendices N, O and P. which was most prevalent in the Andamans and Bombay among administrations, in Western Coast among groups, and in May-June and September-November among months. In three fatal cases there was lymph on the brain, which is suggestive in view of the wide prevalence of cerebrospinal fever. In one there was ulceration, but not typhoid ulceration, of the intestine; in another ulceration of the sigmoid flexure and rectum; while one case was ultimately changed to plague. On the whole, there is no reason to doubt the expressed opinion of medical officers that nearly all the cases returned as remittent fever were malarial; and in at least some cases pigment and parasites were looked for and found in the blood during life. No post-mortem records were furnished for the 35 Andaman cases or for 10 of the Bombay cases.

68. The most common causes assigned for the cases returned as simple Simple continued fever. Appendices O and P. continued fever were errors of diet, indigestion, constipation, absorption of toxins from the bowel; exposure to sun, heat, fatigue, worry, rain, climatic changes, chill at night. Cases were so returned when no plasmodia were found in the blood, when the fever was not periodic, and when there was no other obvious general or local bodily causation. On the other hand some of the cases are stated to have been probably malarial, or influenzal, or catarrhal, or vaccinal, or tubercular, or of unknown nature.

69. Throughout the jails of India there were returned 41 cases of Enteric fever. Appendices O and P. Table XLVII. Malta fever. enteric fever with 20 deaths. These were distributed over 22 jails, of which 15 had only one case each. With one exception the post-mortem records clearly support the diagnosis. The diagnosis was confirmed by Widal's test in two cases. Most of the reports do not even mention causation. At Moradabad no cause could be found. The same was the case at Cannanore; but it is stated that the disease prevailed outside the jail, and the Sanitary Commissioner mentions that cases have from time to time been reported among the native inhabitants of various districts. With regard to the Fatehgarh Central Prison it is stated that

cases have recurred every year since 1894. In 1901 two cases came from the left circle, two from the right circle, two from the left semi-circle, and one from the female prison; and their work and water-supply were various. One case occurred in April, 3 in May, 2 in June, and 1 on the 1st of July. Water was three times sent to Agra for analysis. The samples sent on the 11th June were all reported fit for potable purposes. Of water sent on the 20th June it was reported that "no microbe resembling that of enteric fever was detected in any of the samples." Of the samples sent on the 7th July, that sent from the right semi-circle was reported unfit for potable purposes, but no case of enteric occurred in the right semi-circle. On the 19th July pipettes containing blood of three patients supposed to be suffering from enteric fever were forwarded, and of these specimens one was reported to agglutinate the enteric microbe. A further report as to the six samples sent on the 7th July was received to the effect that in that from the left circle well a microbe had been detected having the cultural characters of the enteric bacillus, but not reacting with typhoid serum. Although the wells had been previously dredged and cleaned out, they were all, on receipt of this report, again thoroughly cleaned out, and treated with permanganate of potassium. It was noticed that the well water had reached a very low level in 1901, it being impossible to obtain a continuous supply from one or two of the wells. A case of Malta fever, the diagnosis of which was confirmed by the serum test, was observed in the Thana Special Prison.

70. There were 141 cases of cerebrospinal fever with 102 deaths, as against 99 with 79 in the preceding year. The admissions from 1896 have been 7, 13, 24, 29, 99, and 141. Besides these 141, at least 10 of the fatal cases returned as "meningitis" from various jails may have been cases of cerebrospinal fever. In 1898 eight jails were attacked, in 1899 six, in 1900 seventeen, in 1901 twenty. Thirteen of the twenty of 1901 had had none in the preceding year. Cases had occurred in the Allahabad District, Fatehpur District, and Jubbulpore Central Jails in 1900; in the Alipore Central in 1898 and 1900; in the Raipur Central and Mymensingh District in 1899 and 1900; and in the Bhagalpur Central in 1898, 1899, and 1900. Ten of the jails had but one case, and six from two to five cases. The larger outbreaks were 47 cases at Mung Rasul, distributed monthly as follows: 0, 0, 0, 0, 2, 22, 16, 2, 2, 2, 1, 0; 31 cases at Bhagalpur—1, 2, 2, 1, 3, 6, 1, 0, 3, 1, 5, 6; 25 cases at Allahabad District—1, 0, 2, 3, 9, 2, 0, 0, 0, 0, 4, 4; and 8 cases at Sultanpur 0, 0, 0, 1, 3, 3, 0, 1, 0, 0, 0, 0. The deaths in the same jails were, respectively, 29, 23, 21, and 8. Perhaps also cases occurred which were not recognized. Where the post-mortem records are full enough, they on the whole satisfactorily support the diagnosis. Further evidence has been brought forward of the occurrence of the disease in the free population, civil and military. Special investigation by the medical officer, and subsequently by a medical commission, failed to elucidate the origin of the outbreak at Mung Rasul, which was the only Punjab jail returning the disease, * though cases occurred among the native troops of several stations in the province. The medical officer adduces some strong reasons for disbelieving that the disease was in any way connected with dust. None of the prisoners employed on scraping and disinfecting barracks was affected, none of the men working in the garden or grain godown, only one man on grinding, and he had been on that

* The Delhi, Gujrat, and Multan district jails had each a suspicious fatal case of "meningitis" in February, October, and December, respectively. See also Section III of this report.

work only two days ; and the canal department coolies doing the same dusty excavation work as the prisoners entirely escaped. The warders and officials superintending dusty work also remained free. The incubation period was judged to be from 18 to 30 days. The *Meningococcus intracellularis* was found in some of the specimens of blood, serum, and pus sent for examination to the Pasteur Institute, Kasauli. One case died in the pneumonia ward, and was only diagnosed post-mortem. It may have been caused by the pneumococcus, unless the pneumonia was secondary. In the following year it was observed that a severe outbreak of pneumonia was coincident with the greatest severity of the cerebrospinal fever outbreak. Everything that could be thought of, or that was recommended by the special commission, including evacuation and disinfection, was done to check the outbreak, and prevent a recurrence. * The medical officer of the Bhagalpur Central Prison shares the opinions of his predecessors that the disease is spread mainly by infected dust ; that it is most prevalent during dry and dusty seasons of the year ; and that prisoners are most liable to be attacked who work at dusty occupations, such as wheat-grinding, sweeping, and gardening. The jail was overcrowded, evacuation was not resorted to, and any ward was only disinfected when more than one case occurred in it. The occurrence of cases continued into the following year without interval. On the other hand the Mung Rasul jail was not overcrowded, and the most thorough measures were adopted, including complete evacuation of the jail ; and yet, after an interval, the disease recurred (in 1902). The disease first became epidemic in the Allahabad District Jail in the end of 1900, that outbreak ending in January 1901. A second epidemic began on the 19th of March and lasted till the 12th of June. A third epidemic began on the 5th of November, and continued to the end of the year. For a long period during the hot weather the jail was abandoned, and the prisoners were kept in camp ; the barracks were partially unroofed, and were repeatedly thoroughly disinfected ; clothing was disinfected and destroyed, and every other measure thought of was taken. But the course of the epidemic appeared to be little, if at all, affected (and the prisoners have had again to go into camp in 1902). The sanitary condition of the jail appears to be excellent ; and it is important to note that the medical officer, who is also Civil Surgeon of Allahabad, saw (Table XLIV) four cases of the disease, three of them fatal, outside the jail in the free population. At Sultanpur the first case was admitted into hospital on the 28th April and the last on the 27th June, intervals of 5 to 25 days elapsing between the cases. The first man attacked was an undertrial prisoner who had been attending court, and the last an undertrial prisoner who had never been inside the jail, and was admitted into hospital in camp. The hospital assistant also reported the occurrence of a case among the free inhabitants of the city. The prisoners were moved into camp, and the barracks were thoroughly disinfected ; but the move into camp did not appear to produce any immediate effect in checking the epidemic. The jail covers a large area and was not overcrowded. The barracks were originally constructed for the accommodation of European troops, and are exceptionally well ventilated. Of Fatehpur, on the other hand, which had 2 deaths, it is said that the jail is very old, the buildings badly constructed, and site overcrowding very marked. The man who died in the Presidency Jail in Calcutta is reported to have been a newly admitted prisoner. The medical officer at Sambalpur states that the superficial area per prisoner is insufficient ; that the area between inner walls is site-crowded, and that the small patch of ground in each barrack yard must be

* The disease re-appeared in January 1902.

saturated with the sputum and epithelium of the 800 or more prisoners confined year after year within such cramped limits. At Yerrowda the disease was considered to be largely due to overcrowding. In the one Yerrowda case which was bacteriologically examined, Captain Lamb reported that the infective agent was the pneumococcus and the cerebro-spinal meningitis secondary to the pneumonia; but as this was the only case with lung symptoms, the medical officer thinks the other cases may have been due to the *Meningococcus intracellularis*. Information regarding the disease in other jails is wanting, except that the second of the two cases occurring in the Fyzabad jail seemed to have no connexion with the first. In 1901 was published a case which had occurred in September 1900 in a member of the free population of Yeotmahl, and was supposed to have been caused by dust from grain that had been pitted. The diagnosis was purely symptomatic, as no bacteriological examination could be made. In the Murshidabad free population a case was discovered *post mortem*. It was also reported in 1901 that there was now "no doubt that cerebrospinal fever is a disease of the general public of Calcutta, and probably other places." On the whole, it appears that in many of the occurrences of the disease in jails in 1901, the infection may have been introduced from without. But in some jails, Bhagalpur for example, the infection seems to be, for the present, localized and inherent. The measures mostly recommended, and very generally adopted in Indian jails, resemble those employed to combat plague and other infectious diseases, and are empirical; because, unfortunately, no such new light has been thrown upon the natural history of the disease as to indicate the exact measures necessary for its prevention and eradication. Nor is it in India only that recrudescences of this type of fever have been observed of late years. In his recent researches in Edinburgh, McDonald never succeeded in isolating the infecting organism from the circulating blood; and therefore contradicts the statements of Williams and Williams quoted in last year's note. He was able to observe both meningococcal and pneumococcal cases, and found the difference to be one of bacteriology only, not of morbid anatomy also.

71. One case of typhus fever, non-fatal, was returned from the Dera Ghazi Khan jail. Relapsing fever gave 323 cases with 5 deaths in the Bijapur jail, 31 cases with 9 deaths in the Bombay Common Jail, and 2 cases in

Typhus.
Relapsing fever. (*)
Plague.

the Yerrowda Central Prison. At Bijapur the outbreak was attributed partly to famine in the district and partly to overcrowding in the jail. Five specimens of blood of prisoners suffering from "fever" were sent to the Research Laboratory at Parel, and four of them were pronounced to have parasites of relapsing fever. Relapsing fever occurs in Bombay city; but it was thought its prevalence in the Bombay Common Jail was to a certain extent due to the continued overcrowding. Christy in the village of Jeur, near Ahmednagar, discovered an epidemic of relapsing fever among the free population, and got the spirillum in the blood of a case. He thought that bugs might convey the infection, but an experiment on himself fell out negatively. In Bosnia, Karlinski came to a similar conclusion with regard to bugs, but did not consider fleas and lice to be intermediaries of infection. He found spirilla in the intestines of bugs in fever houses, and spirilla in that situation could retain their motility for 30 days. The mode of infection was supposed to be that the bugs void evacuations close to the wounds which they make, and so these easily become infected. Of plague, 50 cases and 36 deaths occurred. The jails affected were Patna (18), Bombay House of

Correction (17), Thana (6), Dharwar (3), Monghyr (3), Arrah, Yerrowda, Kurra-
chee (1 each). At Bankipore (Patna) the disease first occurred in a prisoner
within a few hours of admission to jail on the 1st February. He died on the 6th.
Rats died on the 28th and following days in various parts inside and outside
the jail. The epidemic began on the 4th of March. The outbreak in the
Bombay House of Correction was also preceded by a large rat mortality. It was
not discovered how the disease obtained an entry to the Thana prison in
February and again in November. In the latter month 264 prisoners were
inoculated. Of Dharwar it is said that the presence of dead rats showed the whole
of the jail premises to be infected, but that inoculation prevented a larger out-
break. Again, at Gaya all the inmates of the jail were inoculated, and it was
considered to be probably this which kept plague out of the jail at a time when it
was raging with great virulence in the town and throughout the district.

72. The admission ratio for scurvy was 1·3 per mille against 1·1 in the
previous year. There were 155 cases, of which
37 per cent. were in the Burma jails and 27 per
cent. in the Bombay jails ; 36 per cent. in the Rangoon Central Prison and 15 per
cent. in the Hyderabad Central Prison. The medical officer at Rangoon states
that the scurvy appeared to have been due to a defect in the quality of the vege-
tables during the middle and end of the rains, though the quantity was always
ample.

73. The ratio of admission from tubercle of the lungs remained the same
as for the preceding year, but there was some
reduction in mortality. The highest mortality
ratios were those of the Andamans, Burma, and Madras; and in the Anda-
mans, the United Provinces, Bombay, and Madras the ratios were higher than
those of the previous year and of the quinquennium. Some remarks on the
disease have already been made in the paragraphs treating of the various admi-
nistrations. At Alipore, Major Buchanan introduced the open-air treatment of
phthisis, as far as was practicable. A ward was set apart for it with a larger
allowance of air-space, and the patients spent the whole day in the verandahs,
were allowed extra food, including an abundance of milk, also special warm cloth-
ing, reserved for them and frequently disinfected and boiled ; and were supplied
with spittoons containing disinfectants ; while the walls and floors of the wards
were also frequently disinfected. At Midnapore, Bhagalpur, and Hazaribagh
somewhat similar arrangements were made. In the Lahore Central Prison,
where the disease is prevalent, Major Braide succeeded in curing 12 of the 34
cases which came under treatment. As far as can be judged from the reports, it
is only in the Andamans, Bengal, and the Punjab that a serious effort is being
made on modern scientific lines to prevent the spread of infection and to cure
those already infected. It is to be hoped that other administrations will not be
long in following the good example set them. So long, however, as jails con-
tinue to be overcrowded, medical officers will be fighting at a disadvantage. In
Madras arrangements are being made for the provision of high-power micros-
scopes to medical officers of jails, and the Inspector-General looks forward to the
time when the diagnosis of tubercle will be made easier by their use. But,
unfortunately, it has been discovered that the diagnosis of tubercle cannot be
made by the microscope alone without cultivation and animal experiment, because
of the wide occurrence in nature and the human body, even in sputum, of acid-
proof bacilli morphologically indistinguishable from the true tubercle bacillus ;

and that in the past errors have been made in diagnosing tubercle where none was present.

It is satisfactory to find that the number of cases returned as non-tubercular phthisis fell to 13, 7 fatal; but it is probable that the tubercle bacillus was not really absent in all of these.

74. There was a slight decrease of morbidity, and a somewhat greater decrease of mortality from pneumonia. The Bombay administration had, as usual, the highest death-rate, and only in that administration was it higher than in the previous year and the decennium. In all other administrations the mortality was less than in the preceding year and the quinquennium, except Berar, in which it was less than in 1900 only. The admission-rate in Indus Valley was even higher than usual. Much the highest admission ratios were those of the Sind Gang and the Shikarpur jail, and the former had also much the highest death ratio. The outbreak in the Sind Gang was not confined to the prisoners, several members of the establishment being attacked. The measures taken indicate that there was probably an element of contagion present, but no direct mention of this is made in the report. The climate of Bhiria, where the camp is situated, is said to be most trying, on account of the great range of temperature; and the chief incidence of the disease fell in January-March and in November-December. The latter outbreak followed the prevalence of malarial fever, and the men attacked are said to have had enlarged spleens. A medical officer was specially deputed to inspect the camp, and reported that suitable measures had been taken. The chief of these were reduction of the numbers confined in each barrack, seeing that the prisoners wore their clothes and blankets, issue of a hot morning meal; isolation of the sick and destruction by fire of their expectoration; whitewashing of the barracks and opening up of their roofs by turns; transfer of weakly and convalescent prisoners from the Gang and stoppage of transfer to the Gang. In the United Provinces the practice of partially bricking up the ventilating openings of the sleeping barracks during the cold weather has been practically abandoned; and that the effect cannot have been bad is shown by the considerable reduction in 1901 of sickness and mortality from pneumonia. The Inspector-General of the Punjab believes one of the chief causes of pneumonia in the jails to be the deep-rooted native habit of wrapping the head in the bedding during sleep, as it entails all the evils of bad ventilation on persons adopting it. In Mung Rasul an outbreak of pneumonia was coincident with the prevalence of cerebrospinal fever; and the sputa of patients were destroyed by fire. In regard to the pneumonia of the Ahmedabad Central Prison, the medical officer says that it was due in many cases to the men having carelessly exposed themselves to cold and chill, and perhaps to infection in the others; and that the men attacked were generally in a debilitated state of health at the time of admission.

Other respiratory diseases were most prevalent in proportion to strength in the Andamans, and then in the Punjab and Bombay. The highest ratios were those of the Sind Gang and the Lahore Central Prison.

75. There was a decrease of dysentery both as to admissions and as to deaths. Only in the Andamans and in the Punjab was the mortality greater than in the preceding year and the quinquennium. All the other provinces had less mortality than in 1900 and the lustrum; except Bengal, which was improved as compared with

Pneumonia and Other Respiratory Diseases.
Appendices N, O, and P. Table XLII.

Dysentery (5) and Diarrhoea.
Appendices N, O, and P.

the previous year only, and the United Provinces, whose ratio, though better than that of the quinquennium, was higher than that of 1900.

The groups with the highest admission ratios were Bengal-Orissa and Assam, and all the jails with ratios above 400 per mille, and most of those above 200, (up to 1031·3 at Hooghly) were in Bengal. It having been noticed in the Andamans that some cases had been contracted in hospital from dysentery patients, a partition was placed in each hospital to divide the dysentery cases from others, a separate latrine was provided, the bedding of dysentery patients was marked and was disinfected before washing apart from other hospital bedding, the drinking supply was kept separate, the stools were incinerated, hot food was issued, and men working far away from the boiled water-supply were provided with a joint of the giant bamboo filled with boiled water. These measures only came into force towards the close of the year, but are said to have already produced a decided decrease in the number of dysentery cases. In noticing the appearance of a severe form of dysentery in many jails towards the close of the year, the Inspector-General, United Provinces, mentions that he believes the free population to have been similarly affected. His jail superintendents were generally more convinced of the necessity for carefully isolating the patients and of destroying their evacuations, and every possible effort was being made to improve the water-supply. The Inspector-General, Punjab, emphasizes the necessity of attention to details, including personal cleanliness, cleanliness of clothing and bedding, protection of the ground from pollution, prevention of dissemination by flies, proper carrying out of the dry-earth system, and incineration of dysenteric dejecta. The Inspector-General, Madras, refers to the adverse conditions (meaning, apparently, scarcity) in North Arcot and Cuddapah as explaining the increase of dysentery in the Vellore Central Prison. In the tables of the Sanitary Commissioner, however, there is no lower death-rate from dysentery than that of Cuddapah, and four districts had higher ratios than North Arcot. On the whole, it is evident that in some provinces, if not in all, an earnest endeavour is being made to apply the present teachings of science in the measures taken against dysentery. And it is to be hoped that at the same time attention to antiscorbutics, food, cooking, clothing, bedding, ventilation, conservancy, water-supply, etc., as well as to the question of intestinal parasites, will not be relaxed. The reports on izal as a remedy were on the whole not very satisfactory.

During 1901 no researches on the bacteriology of dysentery appear to have been published in India. The bacillus discovered by Shiga in Japan, and found also by Flexner in the Philippines, by Flexner and by Vedder and Duval in America, and by Kruse in Germany, is said to be the cause, or, at least, a cause, of acute dysentery not followed by abscess of the liver; whereas subacute or chronic forms, which are apt to lead to hepatic abscess, are put down to the amœba, or to bacteria introduced by the amœba. The bacillus is agglutinated by the serum of patients suffering from bacillary dysentery.* It is stated that an assistant in Flexner's laboratory became infected by the bacillus and developed dysentery; and that Strong in the Philippines obtained a positive result by infecting a condemned criminal with the bacillus. Kruse describes bacillary dysentery as an exquisitely contagious disease, the infectious matter of which is present only in the stools. Shiga himself published in October and November a long paper, which summarizes 10 conclusions regarding bacillary dysentery and 6 regarding amœbic, including the distinctions between the two forms. The infection, in the former at least, enters by the mouth, and the bacilli probably do not gain access to the blood.

* Quite recently the serum of patients suffering from dysentery in the Alipore Central and Bhamo District Jails has been found to react with Shiga's bacillus. See I. M. G. of July 1902, page 278.

76. Nine cases, two fatal, of beri-beri were reported: five from Burma, two from Madras, one from Assam, and one from Bengal. The disease is said to have been introduced into the Insein Central Prison, which had two cases, from the outside.

Beri-beri.

77. The observations on the prevalence of intestinal parasites among prisoners, begun in 1900 by Major Calvert at Darbhanga, were continued by his successors, Lieutenant-Colonel Grainger and Captain Gwyther. The latter reported that 209 prisoners were the subject of examination. In the stools of 189 the ova of *Strongylus duodenalis* were found; of *Ascaris lumbricoides* in 78; of *Oxyuris vermicularis* in 29; of *Trichocephalus dispar* in 23; of *Bilharzia haematobia* in 1. Only 3 of the stools examined contained no ova. At the Dacca Central Prison, Lieutenant-Colonel Campbell examined 277 prisoners, and found *Strongylus duodenalis* in 35; *Ascaris lumbricoides* in 26; *Oxyuris vermicularis* in 1; and *Trichocephalus dispar* in 74. In the Akola Central Prison there were 16 admissions and 2 deaths due to the cachexia produced by *Strongylus duodenalis*, against 29 and 12 in 1900. It is stated that the symptoms of this disease were in that jail long attributed to scurvy. Grawitz considers that the cachexia is due partly to loss of blood and partly to the absorption of a poison formed by the decomposition of the blood extravasated into the intestine. It is recognized as possible too that the worm itself may excrete a poison. Goldmann believes that risk of infection is diminished by the addition of citric acid to the drinking water. But in last report the discovery of Looss, that the parasites enter through the skin, was referred to; and following up the clue afforded by this discovery Bentley has endeavoured to show that the "coolies' itch," "ground-itch," or "pani-ghao" of Assam is due to the entry of the same parasite through the skin of the foot.

78. Cases of guinea-worm were, as usual, most frequent in the jails of the Deccan and Southern India; and, as usual, the administrations with the greatest numbers of cases were Bombay, Madras, and the Punjab. The Coimbatore Central Prison had 30, the highest number for an individual jail.

79. The Andamans returned only 1 death from anæmia and debility, against 41 in the preceding year; and the ratio of mortality was diminished in every province except Assam, the Punjab, and Berar. In the two former the ratio was also above the quinquennial. In all provinces the post-mortem records, so far as they have been submitted, show a great improvement, in that few cases were returned under this head which ought obviously to have been registered under a more definite heading.

Intestinal parasites. Table XLIII.

Guinea-worm. Table XLIII.

Anæmia and debility. Appendix N.

Papers quoted in Section IV.

For explanation of abbreviations see end of Section II.

- (1) *Malaria* by Angelo Celli ; Grassi quoted in L of 5th July 1902, page 37.
- (2) Jones in I. M. G. of November 1901, page 453 ; Grainger in I. M. G. of August 1902, page 303 ; I. M. G. of October 1901, pages 386 and 388 ; McDonald in B. M. J. of 12th July 1902, page 115.
- (3) Christy in J. T. M. of 1st February 1902, page 39 ; Karlinski in C. B. XXXI, page 566.
- (4) Moëller in D. M. W. XXVIII, page 466 ; Olschanetzky in C. B. XXXII, page 16 ; Lubarsch quoted in D. M. W. XXVIII, Vereins-Beilage, page 279, also in B. M. J. of 14th June 1902, epitome-page 96 ; Lichtenstein in D. M. W. XXVIII, Vereins-Beilage, page 97, and in J. P. P. G. IV, page 565 ; De Jong in C. B. XXX, page 672 ; Mironescu in Z. H. XXXVII, page 497, and quoted in H. R. XII, page 699 ; Milburn in L. of 10th May 1902, page 1322 ; Moëller in C. B. XXX, page 513 ; Holscher in C. B. XXX, page 576 ; Moëller in C. B. XXXI, page 278 ; Birt and Leishman in J. H. II, page 120 ; Moëller in C. B. XXXI, quoted in D. M. W. XXVIII, Litteratur-Beilage, page 91 ; Moëller in D. M. W. XXVIII, page 483 ; Schütz quoted in V. J. XXXVI—1-3, page 517 ; Savage in B. M. J. of 27th September 1902, page 934 ; Weber in A. K. G. A. XIX, page 254.
- (5) Shiga, Flexner, Kruse, &c., see references in previous reports ; Vedder and Duval quoted in D. M. W. XXXVIII, Litteratur-Beilage, page 72, in B. M. J. of 19th April 1902, epitome-page 64, in I. M. G. of May 1902, page 186, and in H. R. XII, page 706 ; Doflein quoted in D. M. W. XXVII, Litteratur-Beilage, page 313, and in B. M. J. of 25th January 1902, page 210 ; Pfuhl quoted in D. M. W. XXVIII, Vereins-Beilage, page 50 ; Foulerton in C. B. XXXI, page 205 ; Kruse in H. R. XII, page 263 ; Shiga in D. M. W. XXVII, pages 765, 741, and 783.

SECTION V.

VITAL STATISTICS OF THE GENERAL POPULATION.

80. The third general census of India was taken on the night of the 1st of March 1901. The populations of the whole Empire were enumerated, except those inhabiting West Manglūn, the trans-Salween Northern Shan States, and certain tracts of the Baluchistan Agency. Although the area of the operations was nearly sixteen hundred thousand square miles, and the number enumerated close upon three hundred millions, the preliminary results were declared within a fortnight. A result of this triumph of organisation is the use in the provincial Sanitary Reports for 1901 of the new census figures.

The total population enumerated was 293,475,477, an increase of 6,079,483 or 2·1 per cent. over the population of 1891. But 2,293,629 of the increase is due to the inclusion of territories not included in 1891, so that the actual increase during the ten years of the populations enumerated in that year was 3,785,854, or 1·3 per cent. In the following table the facts are set forth in detail.

British Provinces and Native States.	Population (1901).	Population (1891).	Increase or decrease (+ or -)		Population of area not included in 1891 census.	Increase excluding area not included in 1891 census.	
				Per cent.			Per cent.
Bengal	British	74,744,866	71,346,061	+ 3,397,805	4·8	...	...
	Native States	3,748,344	3,326,837	+ 421,507	12·7	...	...
Assam	British	5,841,878	5,477,302	+ 364,576	6·6	...	...
	Native States	284,465	...	+ 284,465	100·0	284,465	...
United Provinces of Agra and Oudh.	British	47,691,782	46,504,791	+ 786,991	1·6	...	...
	Native States	802,097	794,491	+ 9,606	1·2	...	...
Panjab and North-West Frontier Province.	British	22,455,819	20,866,847	+ 1,588,972	7·6	74,756	1,514,216
	Native States	4,424,368	4,261,280	+ 163,118	3·8	...	...
Central Provinces	British	9,876,646	10,784,294	- 907,648	8·4	...	...
	Native States	1,996,383	2,160,511	- 164,128	7·6	...	...
Berar	...	2,754,016	2,897,491	- 143,475	4·9	...	...
	British	38,199,162	35,030,440	+ 2,568,722	7·0	...	...
Madras	...	421,904	419,980	+ 3,924	0·9	...	...
	Native States	180,607	173,055	+ 7,552	4·3	...	...
Coorg	...	18,515,587	18,834,235	- 318,648	1·7	...	...
	British	...	...	...	...	...	...
Bombay	...	6,908,648	8,082,107	- 1,173,459	14·5	...	...
	Native States	5,645,673	4,658,627	+ 987,046	21·2	...	...
Burma	Upper	3,607,202	3,063,426	+ 543,776	17·8	...	...
	Native States	1,937,749	...	+ 1,237,749	100·0	1,937,749	...
Ajmer-Merwara	...	476,312	542,358	- 66,046	13·0	...	...
Kashmir	...	2,005,578	2,541,952	- 536,374	14·2	...	...
Rajputana	...	9,721,301	11,090,504	- 1,369,203	15·9	...	...
Central India	...	8,628,781	10,318,812	- 1,690,031	16·3	...	...
Hyderabad State	...	11,141,142	11,537,040	- 395,898	3·4	...	...
Mysore*	...	5,539,399	4,943,694	+ 595,705	11·1	...	...
Baroda	...	1,052,692	2,411,396	- 1,358,704	19·1	...	...
Baluchistan	...	810,746	27,270	+ 783,476	2873·0	696,659	86,817
Andamans	...	24,499	15,609	+ 8,890	57·0	...	...
Gwalior State	...	2,933,001	3,371,774	- 448,773	13·2	...	...
India	...	293,475,477	287,395,994	+ 6,079,483	2·1	2,293,629	+ 3,785,854

* Including the Civil and Military Station of Bangalore.

In seven of the British provinces there was an increase of the population ranging from 21·2 per cent. in Lower Burma and 7·6 per cent. in the Panjab (including the North-West Frontier Province), to 1·6 per cent. in the United Provinces. In the remaining four British provinces the populations declined at rates varying between 1·7 per cent. in Bombay and 12·0 per cent. in Ajmer-Merwara.

Alterations in the numbers of the populations. Relation to rainfall.

The changes in the numbers of the population in different parts of the country during the last ten years furnish a striking illustration of the close dependence of the Indian peoples upon a sufficient and normally distributed rainfall.

The monsoon rainfall was in serious defect ($-4\cdot76''$) over the whole of northern and central India in 1895, and in the following year the defect over the same areas was even greater ($-5\cdot33''$). In 1899, although the monsoon rains were unusually heavy in Assam, Bengal and Bihar, they completely failed ($-11\cdot14''$) over north-western and western India and the Deccan. In several years also the autumn and cold weather rains were deficient.

If a map showing the parts of the country where the population has increased and decreased is examined, it will be found that the areas in which the most serious decrease occurred may be enclosed in an irregular quadrilateral described by lines joining the following points; the north-west corner of Cutch, the extreme north of Rajputana, the south-east of the Central Provinces and the south of the district of Belgaum. This figure includes, particularly in the south, areas in which there has been an increase in population, while it excludes areas where there was a decrease; but the increase in the included areas may depend in some cases on the rainfall not having been seriously deficient, while the decrease in the excluded areas seems to be due in many cases to an excess of rain, rather than to a deficiency. Nearly the whole of the quadrilateral depends for its main supply of rain on the south-west monsoon current from the Arabian Sea, although parts in the north of the figure receive rain from the Bay current.

The southern border of the area of decreased population follows more or less closely a line to the south of which the autumn rainfall is normally over five inches.

Taking the total rainfall of the decennium, the amount discharged by the south-west monsoon was in defect in the greater part of Bombay, Rajputana, Central India, the Central Provinces, the north and east of Madras, Eastern Bengal, Assam and Upper Burma; while the discharge from the north-east monsoon was in defect in much the same areas, and also in Sind and Lower Burma.

The ten years may be divided into two periods; the first from April 1891 to March 1895 when the rainfall over a great part of the country was in excess; the second from April 1895 to March 1901 when the rainfall was in great defect. The area in which there was a great excess in the first period corresponds fairly closely with the area in which there was a great deficiency in the second period; but in both periods there was a deficiency over the coast districts of Bombay, in the north and west of Madras, in part of Eastern Bengal, Assam and Upper Burma; and in both periods there was excess in the extreme north-west of the Panjab, in certain northern and south-eastern districts of the United Provinces, in the north-western districts of Bengal and in deltaic Burma.

But the effects of epidemics on the population must not be overlooked. The relationship between cholera prevalence and rainfall is a complex one, and probably varies in different parts of the country and at different seasons of the year. Among

several severe cholera years, the decennium includes three in which the mortality recorded was unprecedented. In 1891 the number of deaths recorded from cholera in the British provinces was 581,409, in the following year the number rose to 724,348, and in 1900 it was 809,179. The aggregate number of deaths recorded in the ten years was 4,505,019, of which 1,970,833 were registered in Bengal, 814,659 in the United Provinces, 619,956 in Madras and 391,430 in Bombay—in the case of the last named a number greater than the decrease in the population during the decennium. A new cause of mortality was also at work for although the number of deaths registered as due to plague up to the end of 1900 was a little less than a fourteenth of the number ascribed to cholera during the decennium, the disease had obtained a firm hold in only a few of the provinces. In Bombay the number of recorded deaths from plague, from 1896 to 1900, was 265,912, only 3,437 less than the number recorded as due to cholera in the same period, which includes 1900, a year of unparalleled cholera mortality in Bombay.

In the vast area of an Indian province the conditions of race, climate and environment vary so much, that it would be surprising if the results obtained in particular districts were always in conformity with those obtained in the province generally.

In most provinces in which the population increased, there were districts where it diminished, and in most provinces where the population diminished there were districts where it increased. In Madras the population increased in every district; but in Coorg the population of the district of Padinalknad decreased.

In Bengal the populations of seven districts decreased. In Patna, Gaya and Saran the main cause of the decrease was mortality from plague, but in the cases of Gaya and Saran the census operations were partially disorganised by the presence of plague, so that there is some uncertainty about the actual numbers of the people. Champaran and Shahabad suffered severely in the lean years and were very unhealthy; while the districts of Purnea and Jessore were unhealthy throughout the decennium. In every one of those districts except Jessore the rainfall in both periods of the decennium was in excess. In Jessore the rainfall in the second period was in excess.

In Assam, the populations of two districts declined; Nowgong where *kala asar* was very severe, and emigration increased while immigration decreased; and Kamrup, where, in spite of the gradual disappearance of *kala asar*, the public health was bad and there was a good deal of emigration.

In the United Provinces no less than eighteen districts shew a falling off in population, the amount varying between 11·5 per cent. in Azamgarh and 3 per cent. in Rai Bareli. Most of these districts are in the south and east of the province, and the recorded deaths exceeded in number the recorded births in most of them in 1891, 1894 and 1897, and in some of them in 1895 and 1896. Here we have to do with the effects not only of drought in certain seasons but of too much rain in others, for the mortality in the districts in the Eastern plain and in the Eastern and Western Sub-Himalayan tracts is stated to have been due to diseases induced by excessive rain, which probably did more damage to the crops in these districts than drought.

In the Panjab the population declined in seven districts, Montgomery in the south and the six districts which run continuously along the north of the province from Umballa in the east to Jhelum in the west. The cause of the decrease in

Umballa is obscure, but appears to have been general 'unhealthiness.' In the cases of the other districts the people emigrated to more favoured parts of the country.

In the Central Provinces most districts suffered severely from famine and the effects of famine, but the fall in the numbers of the population was aided by the emigration of between one hundred and fifty thousand and two hundred thousand people, mostly to the tea districts of Assam, but partly also to Berar, where prior to 1900, conditions were more favourable to agriculture than in the Central Provinces. In three districts the populations increased. Sumbalpur, in the east of the province, depends for rain upon the current from the Bay of Bengal and suffered but little from drought; Nimar, which increased by 14.4 per cent., received immigrants from Khandesh, Berar and the adjoining native territory. Chhindwara, where the increase was very small, received emigrants from the *jagirs*.

In Berar the population of Akola increased. There was immigration into the district, but the actual increase is among the female population and is attributed to their more accurate enumeration.

In Bombay, the population of the province of Sind increased by 11.7 per cent., and in the districts of Ratnagiri, Dharwar, Kanara, and Kolaba the populations increased. In Sind, agriculture depends upon irrigation, and plague was less prevalent than in the Presidency. The districts of Ratnagiri and Kolaba supply the labour market of the capital, and the increase in their populations may be due to exodus from the latter.

81. The following table exhibits the excess or defect of the populations determined by the census of 1901 as compared with the same populations in 1891, and also shews the

Results of registration.

results of registration :—

Province.	TOTAL VARIATION (1891-1901)		VARIATION PER CENT.		Inclusion of additional area per cent.
	Census.	Births minus deaths.	Census.	Births minus deaths.	
1	2	3	4	5	6
Lower Burma	+ 987,046	+ 303,626	+ 21.2	+ 6.8	...
Panjab and North-West Frontier Province.	+ 1,588,972	+ 1,387,408	+ 7.6	+ 6.8	+ 0.4
Madras Presidency	+ 2,568,722	+ 2,385,303	+ 7.0	+ 7.2	...
Assam	+ 364,576	- 126,915	+ 6.6	- 2.5	...
Bengal	+ 3,397,995	+ 2,050,418	+ 4.8	+ 2.9	...
Coorg	+ 7,552	- 12,510	+ 4.3	- 7.2	...
United Provinces of Agra and Oudh	+ 786,991	+ 2,382,283	+ 1.6	+ 5.1	...
Ajmer-Merwara	- 65,446	- 54,614	- 12.0	- 10.1	...
Central Provinces	- 907,648	- 380,180	- 8.4	- 4.0	...
Berar	- 143,475	- 150,803	- 4.9	- 5.4	...
Bombay Presidency	- 318,648	- 241,547	- 1.7	- 1.3	...
India	+ 8,266,547	+ 7,542,469	+ 3.8	+ 3.5	

A word of explanation regarding the figures in the table is necessary. While the areas under registration are always included in the areas of the census operations, the areas do not generally quite coincide. The population for which

vital statistics are registered is in most cases slightly less than the population enumerated at the census. The figures in columns 2 and 3 are, therefore, not comparable, but the percentages in columns 4 and 5 are comparable. In the figures representing the results of registration no account is taken of emigration or immigration; *e.g.*, Assam receives large numbers of emigrants from the United Provinces and the Central Provinces; and from these and from other provinces, there is a considerable flow of emigration to places out of India.

It will be observed that in Madras and Bombay the results of registration appear to agree very closely with the results of the census; but this appearance of agreement is misleading. In Madras both the birth-rates and death-rates are very low, and both are very much lower in the country than in the towns; while if the district figures are examined separately, it will be found that the registration and census figures do not agree. Thus, in the presidency town the registration figures shew a decrease of the population of 1·2 per cent., while the census shews an increase of 12·6 per cent. In twelve of the districts the census totals are higher than the registration totals, the excess ranging from 0·1 per cent. of the population in Kurnool, to 5·7 per cent. in Godaveri and 9·6 per cent. in the Nilgiris. In ten districts the excess of births over deaths is higher than the census totals, the difference varying between 0·1 per cent. in Salem and 4·9 in Nellore.

In Bombay the agreement between census and registration results disappears when the figures for the Presidency proper and Sind are taken separately. In Bombay the census shews a decline of 4·10 per cent. and registration a decline of 2·03, while in Sind the population has increased by 11·68 per cent., although the increase shewn by the registration figures is only 2·88 per cent.

82. The following paragraphs contain a brief analysis of the figures registered during the ten years ending with 1900.

Registration, 1891—1900.

83. Making allowance for a rise in the population in most provinces, and for a fall in a few, and for the effects of famine and plague, a study of the birth-rates recorded in the nine years ending with 1900 seems to shew that registration is improving slowly but surely. The range between the highest birth-rate recorded, 50·5 per mille in Berar in 1899, and the lowest, 14·67 in Ajmer-Merwara in 1900, is very wide, rates are consistently low in Madras (extremes 25·1—31·8) and Coorg (16·15—26·62), and do not shew much signs of improving, and rates in Bombay (26·87—36·76) under the stress of accumulated misfortunes are declining; but in Burma the rise in the rates has been almost continuously progressive from 24·83 per mille in 1892, to 38·37 in 1900; and in Bengal (extremes 28·15—42·96), Assam (28·59—35·45), the United Provinces (31·10—48·09) and the Panjab (34·02—48·4), the rates tend to be higher towards the end of the period. In the Central Provinces (26·83—47·35) the low rates recorded between 1895 and 1898, inclusive, and in Berar (31·3—50·5) the low rates of 1898 and 1900, are due to the years of famine.

The highest rate recorded in 1891 was 43·09 in the Central Provinces; in 1892 the highest rate was 39·9 in Berar; in 1893, the highest rate was 40·95 in the United Provinces. In all other years, save 1899,—a year of high rates, when 50·5 was registered in Berar, 48·4 in the Punjab, 48·09 in the United Provinces and 42·96 in Bengal—the Punjab headed the list, the rates varying between 43·9 in 1894, and 41·0 in 1898.

The provincial figures showing the proportions of the sexes at birth present remarkable features, and would be of great interest if it was possible to discriminate between the peculiarities due to race and environment and the peculiarities due to imperfect and wrong registration.

During the fifty years ending with 1900, the highest percentage of male to female births recorded in England and Wales in any year was 105·2 in 1857, and the lowest 103·2 in 1838, so that the variation between the extremes was only 2 per cent. If, however, separate counties are taken, the variation is much greater. In 1900 the highest percentage was 112 recorded in Westmoreland, and the lowest 96·1 in Herefordshire; and both these figures indicate a considerable departure from the average, which for the ten years ending 1899 was 101·4 in Westmoreland, and 102·9 in Herefordshire.*

The Indian provinces, with two exceptions, shew far higher percentages than England and Wales, and some of them shew greater variations from year to year than the English counties, but the figures registered in each province are generally fairly characteristic.

The provinces may be grouped in four divisions. Those in which the percentages were low, the average for the ten years ending 1900 being below 105; those in which the percentages were moderate, average between 106 and 108; those in which they were high, average 103 to 110; and those in which the percentages were extremely high, above 115.

To the first division belong only two provinces, Coorg (average 101·2) and Madras (104·4). To the second belong six, Bombay, excluding Sind (106·2), the Central Provinces (106·4), Bengal (106·5), Berar (106·6), Lower Burma (107·4) and Assam (107·6). High percentages were recorded in the United Provinces (108·9) and the Punjab, excluding the Peshawar and Derajat Divisions (110); and extremely high percentages in Ajmer-Merwara (116·8), the Peshawar and Derajat Divisions (121·9) and Sind (124·3).

That unduly high percentages of male to female births are the result of wrong classification rather than omission to register is evidenced by the fact that these percentages have gradually declined in the different provinces out of proportion to the rise in the birth-rates. There seems, however, to be good reason to believe that as we recede from the sea into dry climates where the variations of temperature are extreme, the proportions of male to female births increase.

The variations between the highest and lowest percentages registered during the ten years are of interest.

Here again the provinces may be placed in four groups; where the variation was very small, Bombay (·8 per cent.) and Madras (·9); where the variation was small, Berar (2·1), the Central Provinces (2·47), Assam (2·87), Bengal (3·0) and Burma (3·0); where the variation was considerable, Sind (3·4), the Punjab (4), the United Provinces (4·46); and where the variation was very great, Coorg (11·54), Peshawar and Derajat Divisions (12·3) and Ajmer-Merwara (19·46).

It may be remarked that the population of Coorg is only 180,401; and that in three of the ten years the percentage of male to female births was below 100, the lowest being 95·80, registered in 1899. The extreme variation in

* Annual Report of the Registrar General, 1900, page liii & lx.

Ajmer-Merwara seems to be due to bad registration. The constancy of the high percentage recorded in Sind is certainly remarkable.

84. Excepting the United Provinces, Madras and the Punjab, the highest mortality in every province recorded during the ten years ending with 1900 occurred in one of two years, 1897 and 1900.

In the former year the highest death-rates were registered in Assam (50.61), the Central Provinces (69.34), Madras (25.4) and Coorg (50.03); while exceptionally high rates were registered in the United Provinces, Berar and Bombay. In 1900 the greatest mortality was recorded in Bengal (36.63), Berar (82.7), Bombay (70.07), Ajmer-Merwara (119.97) and Lower Burma (27.51); while high rates were registered in the Punjab, the Central Provinces and Coorg. In the United Provinces the highest rate was 42.51, registered in 1894, when cholera was very severe and fevers unusually deadly. In the Punjab the high rate recorded in 1900 follows closely the maximum (49.48) recorded in 1892, when there was the severest epidemic of cholera since 1867, and fevers, including a wide-spread epidemic of influenza, were extraordinarily fatal.

In Assam (29.91), Coorg (21.79), Ajmer-Merwara (20.23) and Lower Burma (15.93) the lowest death-rates were registered in 1891. In Coorg the census of 1891 shewed that there had been a material decrease in the population, so that the rate in that year was computed on too large a population. In Lower Burma the rates have increased fairly steadily from year to year. In all the other provinces the minima were recorded in 1893 or 1898. In the former year the lowest rates were returned from the United Provinces (24.10), the Punjab (28.13), Madras (19.3) and Bombay (27.20); in the latter from the adjoining provinces of Bengal (26.57), the Central Provinces (24.30) and Berar (23.4).

The following table shews, but, unfortunately, not with complete accuracy, the average death-rates at each age period among the two sexes in the British provinces.

Death-rates of sexes at different ages.

Mean ratio of deaths during 1891-1900.

PROVINCE.	Under 1 year.		1-5 years.		5-10 years.		10-15 years.		15-20 years.		20-30 years.		30-40 years.		40-50 years.		50-60 years.		60 years and above.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Lower Burma ...	23.66	16.70	33.15	28.19	13.26	11.41	8.26	7.33	11.48	9.95	12.59	12.78	16.89	18.02	21.44	18.49	29.12	23.89	60.74	58.48
Assam ...	194.14	174.79	38.81	37.57	19.28	16.05	17.51	16.81	25.25	27.99	24.43	26.23	27.81	26.84	34.48	27.72	47.75	41.23	78.44	61.94
Bengal ...	223.83	181.08	44.91	38.53	18.74	15.32	14.71	12.26	18.44	17.45	20.61	18.01	22.60	18.83	29.89	23.12	42.74	36.51	81.05	65.07
United Provinces	256.60	238.04	55.85	54.19	13.78	11.97	8.65	8.17	11.92	16.21	15.90	16.68	20.28	17.26	30.79	25.69	49.47	38.59	68.78	48.22
Punjab ...	224.08	219.19	60.15	64.92	12.28	13.17	8.47	10.02	9.25	11.03	11.92	13.40	15.75	17.40	24.07	22.18	37.48	33.12	108.34	109.58
Bombay ...	195.21	169.05	60.31	56.51	16.07	16.22	12.42	14.00	13.30	14.94	17.79	18.21	23.59	22.74	34.00	25.97	52.55	41.19	109.84	99.12
Central Provinces.*	399.74	345.31	49.38	40.30	20.34	16.63	14.70	13.07	22.12	19.19	21.54	16.88	28.42	21.97	39.73	29.78	61.10	48.67	105.42	84.66
Berar ...	318.94	280.80	101.36	88.54	20.69	18.15	11.48	12.02	12.59	14.82	15.83	17.80	21.33	20.84	33.32	21.84	57.79	44.82	113.26	103.42
Madras*	152.7	127.0	27.7	25.8	9.4	8.8	7.0	7.0	9.0	11.8	10.1	11.0	13.7	11.8	19.5	15.0	32.3	26.6	56.5	51.5
Coorg*	268.89	230.72	37.39	34.04	12.20	10.91	10.58	11.69	15.67	16.31	22.15	23.99	29.19	28.83	36.15	33.63	54.85	48.89	75.02	66.46

* Mean of 9 years.

With regard to every province it will be observed that in infancy the male death-rate is the higher. In the age period 1—5 the male death-rate is the higher in all provinces except the Punjab. In the following age period Bombay is a second exception to the general rule. Between 10—15, females in the Punjab, Bombay, Berar and Coorg died at a greater rate than males; while in Madras males and females died at the same rate. In the age period 15—20, which represents early married life, females died at the higher rate in every province except in Bengal and the Central Provinces, and in Lower Burma, where marriage is later than in India. In the age period 20—30 the female death-rates were the higher everywhere, except in Bengal and the Central Provinces. Between the ages of 30 and 40 the female rates were the higher in Lower Burma and the Punjab alone, and after the age of 40 males died at the greater rate everywhere, except in the Punjab, where, after the age of 60, females died at the greater rate.

By using the figures in the table it is easy to make curves representing the average mortality among the two sexes in the different provinces during the ten years ending with 1900, and it is instructive to compare such curves with those representing English mortality.

If curves exhibiting the mortality of males and females in England and Wales during the ten years ending with 1850 are constructed, it will be found that the lines descend rapidly to the point represented by the age period 5—10, and from thence gradually to 10—15, whence there is a very gradual ascent to the age period 25—35, after which the ascent is more rapid, becoming steep after 45. Curves representing the mortality in England and Wales in the decennium ending 1895 retain the same general shape as those of the earlier decade, descending rapidly to the age period 5—10, gradually to a minimum in the age period 10—15, and then ascending slowly to 35, when the lines, especially that representing the mortality of males, ascend steeply. But in the curves of the later decennium the age period 5—10 is at a lower level, and the slope to 10—15 is more gradual; the lower level is retained in the case of males to between 35 and 45, and in the case of females to the age of 55. There is another very important difference. Sixty years ago, female mortality was greater than male mortality between the ages of 10 and 20, and again between the ages of 25 and 35. In the ten years ending with 1895, female mortality was greater than male mortality only between the ages of 10 and 15; the mortality of the sexes was equal between the ages of 15 and 20, after which females died at a much lower rate than males. The striking difference between the curves of the two decades is, then, the greatly lower level of the curves of the later period representing an enormous saving of life of children and adults up to early middle life, and especially of adolescent females and young married women.

If, now, the curves representing the average mortality in all Indian provinces during the ten years ending with 1900 are examined, the contrast is very striking. There is the same rapid fall in early life to the age period 5—10, when there is generally another rapid fall to the age period 10—15, the lowest point in the male curve of every province, and in the female curve in every province except Assam and Coorg, in both of which the minimum occurs at the age period 5—10. From 15 the ascent begins, always less gradual than in the English curves, the lines representing male deaths

rising steeply between 30 and 40, the lines representing female deaths between 40 and 50.

No Indian curve descends so low as even the 1841-50 English curves, and most Indian curves shew in a marked degree the interlacing of the lines representing male and female deaths which we have seen was a feature of the earlier English curves. In some provinces the charts are peculiar. The Madras curves are on a lower level and are more gradual than any of the others. The lines representing mortality in Coorg rise after 15 almost as rapidly as they descend to 15. The lines representing male deaths in Bengal and the Central Provinces are always higher than the lines representing female deaths, although at the ages between 15 and 20 the latter nearly approaches the former. On the other hand, the line representing female mortality in the Punjab is higher than the line representing male mortality, except in infancy and late middle age. The Bombay chart resembles that of the Punjab.

The Assam chart presents a remarkable feature. There is a very sharp rise about the age of 20 in the line representing males. A similar rise of the male curve appears in the charts of Bengal and the Central Provinces, but not so markedly as in the case of Assam. In most provinces there is a rise of the female curve at this age, and in all, except Bengal and the Central Provinces, the curve of female mortality rises above the curve of male mortality at the child-bearing period.

A study of the English charts shews the saving of life at the most enjoyable and useful ages which improvement in the environment has effected; and a comparison of the Indian charts suggests that analogous improvements might effect enormous saving of life in India, particularly the lives of children and of young adults, and especially of women at the child-bearing age.

85. Let us now analyse the figures registered regarding deaths caused by the

Mortality from chief diseases, principal diseases in the various provinces.
1891-1900.

86. Cholera was the cause of deaths in every province in every year of the
decennium, except in Ajmer-Merwara in 1894 and
Cholera death-rates. 1899, in Coorg in 1895, 1899 and 1900, and in the
Punjab, the Central Provinces and Berar in 1898. The lowest death-rates recorded in the other provinces were '91 in Bengal, '05 in the United Provinces, and '23 in Bombay, all in 1898; '6 in Madras in 1895 and '52 in Lower Burma in 1891. The lowest cholera death-rate recorded in Assam was 1'66, which, it may be noted, is much higher than the minimum recorded in any other province. Six times in the ten years the highest provincial death-rate from cholera was recorded in Assam; twice, in 1892 and 1900, in Ajmer-Merwara; and once each in the United Provinces, 1894, and the Central Provinces, 1896. The highest death-rates recorded during the ten years were 8'93 in Ajmer-Merwara and 8'71 in Bombay, both in 1900.

In Bengal, Madras and Lower Burma males suffered more than females
in every year of the ten. In the remaining provinces
Cholera, sex mortality. the male rates were either higher than, or equal
with the female rates, except in Assam where the female rates were the higher in five years, and the United Provinces where they were the higher in four years.

Speaking generally, the rates were higher in the towns than in the
Cholera mortality, town and country. this was invariably the case; while in Bombay and
country. the United Provinces the rates were higher in the country than in the towns, in

eight years in the case of Bombay, and in six years in the case of the United Provinces.

87. The small-pox death-rates varied greatly, between 7.05 per mille recorded in Ajmer-Merwara in 1896, and .01 recorded in Berar in 1891. From 1891 to 1893 the highest rates were recorded in Coorg. In five of the remaining seven years the highest rates were recorded in Ajmer-Merwara, Assam sharing the distinction in 1894, and the United Provinces and Lower Burma furnishing the highest rates in 1897 and 1898, respectively.

The lowest rates were registered once in Coorg, four times in Berar, and five times in the United Provinces. In 1895 the distinction was shared with the United Provinces by Coorg, and in 1897 the rate in Bombay was the same as that recorded in Berar.

In most provinces, particularly Lower Burma, Bengal and the Central Provinces, males suffered more than females; but in the Punjab the female death-rates were higher than the male in six years, and equal with them in two years. In Ajmer-Merwara the female rates were higher than the male in seven years. In Berar and Madras, where the small-pox death-rates were always low, the death-rates of the sexes were generally equal.

In Bombay and the Punjab the town populations suffered more than the country people, but in Lower Burma, Madras, Coorg and the United Provinces the rural populations suffered more than the urban.

88. Under the heading fevers are included the deaths due to a large number of different diseases, and it is not possible in the present condition of registration to say what proportion in each province of the fever death-rate is due to malaria. Some of the provincial fever death-rates, however, maintain the same characters year after year. In Madras, where the death-rate from fever was lowest in every year of the decennium except 1891, the rates varied from 9.0 to 7.3 per mille, while in the little province of Coorg, embedded in Madras, they ranged from 41.50 to 15.61. In Lower Burma the rates were always low, fluctuating between 11.90 in 1898, and 7.76 in 1891.

In Berar the rates were generally low, but the range from the exceptional rate of 29.5 registered in 1900, to 11.5 in 1898, was considerable. In Assam the rates were uniform but on a somewhat higher level, varying between 28.74 in 1897 and 14.70 in 1900. In Bombay the lowest rate was 12.14, registered in 1899, and the highest rate, 28.87, was registered in the following year. In Bengal there was little variation in the rates, the maximum being 25.32 and the minimum 18.94; but in the Central Provinces the range was extreme, from 16.17 in 1899 to 40.98 in 1897. In the United Provinces the rates fluctuated between 18.84 and 31.88; and in the Punjab between 18.57 and 34.83. In Ajmer-Merwara the rates varied greatly, from 13.05 in 1891, to 81.56 in 1900.

In every province, save the Punjab, Coorg, Ajmer-Merwara and Bombay, males invariably suffered more than females. In Bombay they suffered more in eight years, and in

Ajmer-Merwara in six years. In Coorg, however, females are reported to have died at the greater rate in six of the ten years, and in the Punjab the female death-rate was invariably the higher.

In Bengal, the Punjab, the Central Provinces and Coorg the rural populations always suffered more than the urban populations, and they generally suffered more in the other provinces, except in the United Provinces, where in nine of the ten years the highest death-rates were registered among the towns' populations.

89. The recorded provincial death-rates from dysentery and diarrhoea display some remarkable peculiarities. In Bengal the rates were always low and fluctuated only slightly from '91 to '52 per mille, while in the neighbouring province of Assam the rates were uniformly high, varying between 4'61 and 2'74. In Madras the rates varied between 1'2 and '7, whereas in Coorg the range was from 3'11 to '64. In the United Provinces (1'41 to '50), the Punjab (1'26 to '59) and Lower Burma (1'95 to '91), the variations were inconsiderable, but in Ajmer-Merwara the rates ranged from '70 in 1896 to 15'90 in 1900. In 1900 enormous death-rates were registered also in Bombay, 11'59, and Berar, 22'4. In these provinces the rates in other years ranged in Bombay from 1'75 in 1893 to 4'57 in 1897, and in Berar, where the rates were always high, from 3'5 in 1898 to 10'3 in 1897. The Central Provinces also suffered excessively in 1900, when the rate was 5'16, and in 1897 when it was 8'53; the minimum for the ten years in the Central Provinces, 1'23, being recorded in 1898.

In every province, except Madras and Berar, in every year, males suffered more than females. In Madras the death-rates of the sexes were equal in 1895. In Berar the rates were equal in 1892 and 1899, and in 1891 the female rate was slightly the higher.

In all provinces, except Bombay and Berar, the towns' populations suffered most. In Bombay, in 1891 the rural death-rate was considerably the higher, and in Berar in every year, except in the famine years 1897 and 1900, the rural populations suffered most.

90. It might be expected that the death-rates under the heading 'all other causes' would be higher in the towns than in the rural areas, and, except in Berar in 1900, this was invariably the case. The urban and rural maxima were registered in 1900 in every province, except Assam, where the maxima were registered in 1897, and the United Provinces, where the maxima were registered in 1899. In Madras and Ajmer-Merwara although the highest urban rates were recorded in 1900, the highest rural rates were recorded in 1891 and 1894, respectively.

Before proceeding to the consideration of the statistics registered in the various provinces in 1901, the following figures relating to the populations claim attention.

91. The sex and age distribution of the people in the British provinces is shewn in the following table, in which is given

Sex and age constitution of the populations.

the sex composition in 1891 and the sex and age composition in 1901 of each thousand persons in

each province.

Age and sex constitution of provincial populations.

Age group.	Census of	Bengal.		Assam.		United Provinces of Agra and Oudh.		Panjab.		North-West Frontier Province.		Central Provinces.		Bihar.		Madras Presidency.		Coorg.		Bombay Presidency.		Ajmer-Merwara.		India excluding Burma.†	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Total	1891	498	502	515	485	518	482	539	461	540	460	500	500	515	485	495	505	554	446	518	482	532	468	509	491
Total	1901	501	499	513	487	516	484	538	462	545	455	492	508	506	494	493	507	555	445	516	484	526	474	508	492
Under one year		74	15	18	18	16	15	17	16	15	17	11	11	9	10	14	15	15	26	11	11	7	6	15	14
1-5 years		52	50	55	53	48	48	54	48	58	58	51	54	41	45	52	54	38	39	50	51	29	26	50	53
5-10 "		70	74	73	76	67	61	74	63	81	71	68	68	64	67	71	71	62	62	73	69	57	51	72	67
10-15 "		62	59	58	47	65	53	67	56	63	45	65	57	67	59	64	57	66	58	67	54	72	59	64	53
15-20 "		42	45	51	43	45	37	40	39	46	35	41	39	38	38	41	38	54	43	41	38	61	51	43	40
20-30 "		53	39	33	95	33	35	37	30	91	77	85	94	37	94	72	86	124	94	90	87	111	100	84	87
30-40 "		71	65	81	66	74	70	73	63	80	65	75	75	37	76	70	72	103	64	80	72	73	69	73	69
40-50 "		49	41	49	39	35	33	33	46	50	42	50	52	38	51	52	50	15	36	52	49	61	36	51	48
50-60 "		28	29	25	23	34	33	34	28	20	23	28	31	34	30	33	33	25	21	31	29	33	33	31	30
60 years and above		23	29	20	20	24	29	33	27	29	21	17	16	22	24	25	30	13	15	20	24	16	20	24	28

* Fractions are omitted, but it should be noted that in the Central Provinces the male population is slightly the greater.

† The details of the figures for Burma are not available.

It will be observed that in 1891 in India there were 509 males to every 491 females, and that in 1901 the proportion of females had slightly increased, the figures being 508 males to 492 females. In 1891 there was an excess of males in every province except two, the excess being most marked in Coorg, the Punjab and Ajmer-Merwara. In the Central Provinces the numbers of the sexes were nearly equal, and in Madras and Bengal there was a slight excess of females.

In 1901, the excess of females in Madras has increased, and there is now an excess of females in the Central Provinces; but in the vast population of Bengal the small excess of females has become a small excess of males, which is to be set off against the fact that in each of the remaining provinces, except Coorg, the excess of males has slightly diminished.

92. In 1901 the average birth-rate throughout the British provinces of India was 34.7 as compared with 36.6 in the preceding year, ranging from 41.35 per 1,000 of the population in the United Provinces to 16.10 in Ajmer-Merwara.

It is sometimes urged in extenuation of the registration of a very low birth-rate that there is a deficiency of females in the population, so that it is of interest to compare the birth-rates obtained when the births recorded are computed

Birth-rates computed on the number of females in the populations.

upon the female populations between the ages of 15 and 40. This has been done in the table below.

Province.	Population of females, 15-40 years.	Total births, 1901 (males and females).	Birth-rate during 1901 (per 1,000 of females 15-40 years).	ARRANGED IN ORDER.			
				Province.	Birth-rate (1901) per 1,000 of total population.	Province.	Birth-rate (1901) per 1,000 of females 15-40 years.
Bengal	14,948,135	3,870,806	192.0	United Provinces of Agra and Oudh ...	41.35	United Provinces of Agra and Oudh ...	214.3
Assam	1,081,618	170,189	165.8	Bengal	38.57	Bengal	192.0
United Provinces of Agra and Oudh ...	9,301,734	1,072,131	214.3	Punjab	35.4	Punjab	192.0
Punjab	3,711,200	712,553	192.0	Assam	33.96	Assam	165.8
North-West Frontier Province ...	354,401	60,413	165.8	Berar	30.6	North-West Frontier Province ...	155.3
Central Provinces	3,039,754	279,998	137.9	North-West Frontier Province ...	29.5	Berar	146.1
Berar	572,863	87,762	146.1	Central Provinces	28.83	Central Provinces	137.9
Madras Presidency	7,775,407	935,719	128.6	Bombay Presidency	25.10	Madras Presidency	128.6
Coorg	35,871	3,461	94.8	Madras "	25.1	Bombay "	128.0
Bombay Presidency	3,535,657	465,647	128.0	Coorg	18.13	Coorg	94.8
Ajmer-Merwara	104,873	7,679	73.2	Ajmer-Merwara	16.10	Ajmer-Merwara	73.2
Total	47,975,005	7,571,428		Total	347	TOTAL	176.2

For facility of comparison the provinces have been arranged in two columns, in the first in order of descending birth-rates computed upon the numbers of the total populations, in the second in the order of descending birth-rates computed upon the numbers of females between the ages of 15 and 40.

It will be observed that both lists begin with the United Provinces, Bengal, the Punjab, and Assam, and both end with Coorg and Ajmer-Merwara. With rates computed on the total population, the North-West Frontier Province comes below Berar and Madras below Bombay, but with rates computed on the number of females the positions are reversed.

93. In every thousand persons whose deaths were registered in India in 1901, there were 521 males and 479 females. In the United Provinces and Bombay the proportions of the sexes dying were the same as the average for all India. In Berar, the Punjab and Madras, the excess of male deaths was less than the average. In the remaining provinces the excess of male deaths was greater than the average, considerably in Bengal, Assam, Ajmer-Merwara and the Central Provinces, greatly in the North-West Frontier Province.

The following table gives the details, and also shews the age and sex composition of each thousand deaths in India and in each of the British provinces.

Age and sex of each 1,000 persons who died in each province during 1901.

Age group.	Bengal.		Assam.		United Provinces of Agra and Oudh.		Punjab.		North-West Frontier Province.		Central Provinces.		Bihar.		Madras Presidency.		Coorg.		Bombay Presidency.		Ajmer-Merwara.		India (excluding Burma).	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Total	325	274	527	473	531	479	512	483	251	469	528	472	511	489	512	458	550	440	521	479	537	473	532	479
Under one year	121	104	124	115	103	150	125	120	148	113	153	150	117	102	105	91	73	74	70	62	63	56	126	111
5 years	75	71	70	71	85	87	99	95	93	93	73	65	102	100	67	65	43	35	72	71	67	53	79	74
5-10 "	43	36	40	33	24	19	31	30	32	29	32	27	32	32	32	30	25	21	37	37	39	31	35	30
10-15 "	28	21	23	21	16	12	17	17	16	15	18	15	16	16	21	19	19	15	29	28	25	23	23	19
15-20 "	24	25	25	32	15	18	14	14	14	14	17	15	16	12	19	22	29	24	21	21	29	30	19	21
20-30 "	50	51	55	65	36	43	50	53	57	42	37	35	39	38	41	48	113	87	57	53	66	50	44	47
30-40 "	49	41	60	46	39	34	33	34	41	45	45	35	40	37	47	42	99	65	62	51	62	56	46	49
40-50 "	42	33	45	27	42	35	35	31	47	37	47	33	43	32	49	37	73	44	50	41	70	56	44	35
50-60 "	35	33	26	25	42	35	19	21	37	29	41	35	47	36	51	44	51	45	49	38	63	53	41	35
60 years and above	53	61	45	34	52	46	87	79	65	52	66	80	75	70	81	89	36	30	67	77	44	49	64	65

In every province more males died than females, and in every province except the Punjab and the North-West Frontier Province the male death-rate was the higher. Under ordinary circumstances, males die at a greater rate than females at all ages except those at which reproduction takes place.

94. It is evident, then, that other things being equal, the higher the proportion of males in a population the higher the death-rates will be. But children, particularly infants, and aged persons die at a greater rate than persons in the prime of life; so that the more infants and old people in a population the higher the death-rate will be, apart altogether from conditions specially affecting health; although, of course, the more unfavourable the conditions, the more will children and old people suffer. A glance at the table in paragraph 91 will shew how different are the age and sex constitutions of the different Indian Provinces. As instances, there are 18 male infants in the North-West Frontier Province for every 7 in Ajmer-Merwara, while there are 33 old men in the Punjab for every 13 in Coorg. As in India generally, in 1901 the death-rate of male infants was 253.0 and of old men 77.4 among every thousand, it is obvious that death-rates computed without reference to the age constitution of the populations fail as an index of salubrity or the reverse, and that some method of correction is necessary. Where there is no difficulty in estimating the population from year to year and registration is accurate, such a correction is easily made; but in India where the gradual increase of the populations is checked by famine and rendered irregular by the occurrence of great epidemics, the difficulty is very great, while the value of the correction is reduced by the fact that deficiencies in registration may and do cause a greater difference in the actual total than the correction.

95. In the following table an attempt is made to correct the provincial death-rates:—

Attempt to correct death-rates.

Province.	Standard death-rate.	Factor for correction for sex and age distribution.	Recorded death-rate for 1901.	Corrected death-rate for 1901.	Comparative mortality figure, 1901.
1	2	3	4	5	6
India	29'6	1'00	29'6	29'6	1,000
Bengal	29'5	1'00	31'04	31'04	1,049
Assam	30'5	'97	27'85	27'01	912
United Provinces of Agra and Oudh	30'0	'99	30'30	30'00	1,014
Punjab	30'7	'96	36'13	34'68	1,172
North-West Frontier Province ...	31'2	'95	19'16	18'20	615
Central Provinces	27'4	1'08	23'46	25'34	856
Berar	26'6	1'11	27'6	30'64	1,035
Madras Presidency	30'0	'99	21'3	21'09	712
Coorg	27'6	1'07	36'49	39'04	1,319
Bombay Presidency	27'4	1'08	37'12	40'09	1,354
Ajmer-Merwara	23'8	1'24	33'13	41'08	1,388

Column 2.—The standard death-rate is obtained in the following way.* The population of all India as determined by the census of 1901 is divided into two groups, males and females. Each group is then subdivided by age-periods into ten sub-groups.† The numbers of deaths registered in 1901‡ in each sub-group are then used to calculate the death-rate per thousand of that sub-group. In the case of each province the population is divided by sex and age periods into similar sub-groups. Against each sub-group the death-rate recorded in the corresponding sub-group in the population of all India is placed, and the number of deaths corresponding to that death-rate is assumed to have taken place in the sub-group. From the aggregate number of assumed deaths in the sub-groups a death-rate per thousand of the actual population of the province is calculated.

Thus the standard death rate for all India is the recorded death-rate, while the standard death-rate for a province is that which would be registered if the mortality in the province among the two sexes at different ages was exactly the same as in all India.

Column 3.—The factor for correction is obtained by dividing the standard Indian death-rate by the provincial standard death-rate.

Column 4.—Contains the death-rate recorded in 1901.

Column 5.—The corrected death-rate is obtained by multiplying the recorded death-rate by the factor for correction.

Column 6.—The comparative mortality figures correspond to the corrected death-rates. The death-rate for India being taken as 1,000, the provincial death-rates are brought to the proportional whole number.

If the provinces are arranged in two columns according to the recorded death-rates and the corrected death-rates, it will be noticed that, except in the case of Ajmer-Merwara, no important change results in the relative position of the Provinces. The comparative mortality figures are, however, interesting.

* The method will be found fully described in Dr. Newsholme's "Elements of Vital Statistics," 3rd Edition, page 109. Cf. Dr. Ogle's letter to the Registrar General in the supplement to his forty-fifth Annual Report.

† Age periods 0—1, 1—5, 5—10, 10—15, 15—20, 20—30, 30—40, 40—50, 50—60, 60 and upwards.

‡ A ten years' average is out of the question.

96. In the following paragraphs will be found a very brief statement of the actual figures registered in the different provinces in 1901, the more important figures being given in tabular form in the appendices relating to this section at the end of the report.

Provincial figures.

97. The rainfall in Bengal in 1901, was scanty and unevenly distributed, the south-west monsoon began late and ceased early, and the October rainfall was in defect everywhere except in Eastern Bengal. Unfavourable meteorological conditions affected the outturn of food grains which was below the average in many districts.

Bengal.

The number of births recorded during the year was 2,870,806, or 121,224 more than in 1900. The birth-rate was 38·57, or 1·63 per mille higher than that of the preceding year calculated upon the same population, while it was 1·83 per mille higher than the quinquennial average computed on the census figure of 1891. It would appear then that registration is improving, but that much remains to be done is evident from the great divergence in the birth-rates of the different districts, from nineteen of which, headed by Muzaffarpur (44·69), Dinajpur (44·41) and Patna (44·06), rates in excess of 40 per 1000 were returned, while in four—Puri (29·57), Hooghly (27·99), 24-Parganas (27·70) and Calcutta (10·76)—the rates were below 30 per 1,000. In only ten towns were birth-rates recorded in excess of 40 per 1,000, and, generally speaking, the birth-rates in towns were much lower than the birth-rates in the adjoining country. The causes of this are explained to be the large floating population and the deficiency of females in the towns, and the custom of sending townswomen to be delivered in the country. It might be added that registration is less defective in the country than in the towns. The average percentage number of male to female births was 105, but the variations, though not extreme, were considerable, from 111 in the 24-Parganas and 110 in Calcutta and Hooghly where the lowest provincial birth-rates were registered, and 110 in Purnea, to 101 in Palamau.

The total number of deaths recorded was 2,310,424, or 293,312 fewer than in 1900. The death-rate was 31·04 per mille of the population, and ·19 per mille higher than the quinquennial average calculated upon the smaller population of the 1891 census. By far the highest district death-rate was 56·79, registered in Patna, only two others were over 40 per mille, Gaya (45·68) and Puri (41·32). The three lowest death-rates were 20·21, 20·70 and 20·88, in the Sonthal Parganas, Ranchi and Singhbhum, respectively.

The average urban death-rate was 37·12, or 6·40 per mille more than in the country, the excess being mainly due to diseases registered under the heading 'other causes.' Deaths ascribed to fevers were, however, far more numerous in the country than in the towns, while to dysentery and diarrhœa were ascribed a far larger number of deaths in the towns than in the country.

These results are in accordance with what we might expect. Where there is no scarcity, dysentery and diarrhœa are far more dangerous to children in crowded areas than in the open country, while precision of diagnosis tends to raise the proportion of deaths registered under 'other causes.'

The variation in the actual rates recorded in the different towns was enormous, due in cases, where the rates were excessive, to the occurrence of epidemic disease, and when the rates were very low to bad registration and to deficient numbers of females.

The mortality among infants was 189.56 among males and 171.96 among females, per 1,000 born. Children between one year and five years of age died at the rates of 44.87 and 39.15 per 1,000 boys and girls living at that age.

At all ages the male death-rates were higher than the female, the averages being 32.64 per mille for males and 29.44 for females.

Hindus died at the rate of 32.12 per mille and Muhammadans at the rate of 30.06; 'Other Classes' and Buddhists at the rates of 21.73 and 21.58; and Christians at the rate of 16.69.

98. The number of European seamen estimated to have arrived in the port of Calcutta was 19,630, or 1,813 less than in 1900, but the daily average number in the port was 1,150 against 989. Only 19 deaths occurred, yielding a death-rate of 16.52 per mille as compared with 51 deaths and a death-rate of 51.56 in the previous year.

The average daily native population of the port was 25,630. Only 137 deaths were reported among them, equal to a death-rate of 5.34 per mille, against 9.40 per mille in 1900.

99. In Assam registration is carried out in the Surma and Brahmaputra Valleys and in parts of certain hill districts, *viz.*, the Khasi and Jaintia Hills, the Garo Hills and the Naga Hills, but the general provincial statistics refer to the Surma and Brahmaputra Valleys only.

In 1901, the number of births recorded was 179,289 as compared with 184,427 in the preceding year. The birth-rate in 1901 was 33.98. The populations of the two valleys are approximately equal in number, but registration is apparently on the whole better in the Surma than in the Brahmaputra Valley, for in only one district of the latter, Goalpara, are the figures obtained in accordance with the probable facts.

The highest district birth-rate was 44.25 per mille in Goalpara, followed by 36.49 and 35.38 in Sylhet and Cachar, respectively. In three districts, Nowgong (29.84), Sibsagar (26.34) and Lakhimpur (26.28) the rates were lower than 30 per thousand.

In the towns the average birth-rate was 29.82 per 1,000, ranging from 47.71 in Barpeta and 36.57 in Nowgong, to 20.20 in Silchar and 12.88 in Tezpur. It is explained that a considerable number of births registered as taking place in Barpeta occur in extra-municipal areas, the population of which is not reckoned in that of the town; while of Tezpur it is said that registration is more defective than in any other town.

The average percentage of male to female births was 107.97, varying between 104.45 in Goalpara and 111.88 in Sibsagar.

The number of deaths registered was 146,939, or 14,692 fewer than in 1900, yielding a death-rate of 27.85 per mille. Among the districts the highest death-rates were recorded in Darrang (35.19), Goalpara (34.09) and Cachar (29.96), and the lowest in Lakhimpur (24.11), Kamrup (23.04) and Sibsagar (21.71).

The urban death-rate was 29.74, or 1.93 higher than the rural, and ranged from 54.26 in Golaghat and 42.72 in North Lakhimpur, in both of which fevers and bowel complaints caused excessive death-rates, to 14.11 in Maulvi Bazar.

In the province generally, the lowest mortality occurred in February and the highest in May. In the Surma Valley the minimum mortality was recorded in October and the maximum in December, while in the Brahmaputra Valley the fewest deaths were recorded in February and the most in July.

The recorded mortality among male infants was 195·4 and among female infants 195·8 per 1,000 born, respectively. In the age-periods 15-20 and 20-30, the female mortality was higher than the male, the averages for all age-periods being 28·51 among males and 27·16 among females.

There has been a great decline in the numbers of immigrants during the last five years. In 1897 the total number was 95,931, in 1898 the number fell to 49,169, and in 1899 to 31,908. In 1900, there was famine in the recruiting districts and the number of immigrants rose to 62,733, but in 1901 it fell to 26,233.

The cause of the falling-off in the number of immigrants is ascribed to the depressed state of the tea industry and to the more stringent provisions of the new Labour Act. There has been a very satisfactory decrease in the mortality among the coolies in transit. In the Brahmaputra Valley the number of deaths during transit, including deaths at the depôts, in 1901, was 69, including 48 from cholera, against 594, including 528 from cholera, in 1900.

The Assam-Bengal Railway is now being largely used for the conveyance of coolies in the Surma Valley. There were only two deaths in this area, both at river depôts.

100. The number of births recorded in the United Provinces was 1,972,131 or about 80,000 more than in 1900, yielding a birth-rate of 41·35 per thousand. In eleven of the districts, headed by Hardoi (51·28), Moradabad (50·13) and Budaun (49·93), the birth-rates were more than 45 per thousand, and in only two districts, Dehra Dun (27·81) and Azamgarh (28·94) were they lower than 30 per thousand.

The average birth-rate in the towns was 40·28, the highest rates being 57·90, 55·54 and 54·51 in Pihani, Rae Bareilly and Bilsa, respectively. In Naini Tal (18·08) and Mussoorie (16·67) the birth-rates were below 20 per mille.

The percentage of male and female births ranged from 113·61 in Muzaffarnagar, to 101·92 in Garhwal, the provincial average being 107·73.

The death-rate was 30·30 per 1,000 of the population, the number of deaths recorded having been 1,445,035, or about 15,000 fewer than in 1900. The highest district death-rates were recorded in Benares (40·35) where plague occurred, Farrukhabad (39·84), where the 'fever' death rate was very high and cholera was present, and Hardoi (38·69), where 5·33 per 1,000 of the population died of cholera. In 21 districts, including all those in the Fyzabad and Gorakhpur Divisions, the death-rates were below 30 per thousand, the lowest being 21·10, 20·89 and 19·69 recorded in Azamgarh, Almora and Gorakhpur, respectively.

In the town of Sahatwar in Ballia the death-rate of 110·90 was registered, including rates of 63·52 under the heading 'fevers,' and 28·93 from cholera. In Brindaban, where cholera was severe (6·82), and fevers extraordinarily so (66·29), the death-rate was 76·11; and in Benares, where plague was prevalent, it was 74·66. In 12 others of the larger towns the rates were over 50, and in only 15 were they lower than 30 per mille, the average urban death-rate being 42·87, as compared with 29·34 in the rural circles.

The monthly death-rate, which was 1·99 in January, fell in February to 1·69, and then rose fairly steadily until October, when the maximum, 3·62, was reached, after which the death-rate fell to 3·30 in December.

The death-rates of Christians and 'Other Classes' were computed at 8·82 and 17·35 per 1,000, respectively, but the figures in certain of the districts are obviously

not correct. Muhammadans died at the rate of 28.81 and Hindus, who constitute more than five-sixths of the population, at the rate of 30.65.

The death-rate of male infants was 237.33 and of female infants 227.83 per 1,000 born, respectively. Boys and girls between the ages of one year and five years died at the rates of 54.12 and 54.50 per thousand living as determined by the recent census. At all other age-periods, save 15-20 and 20-30, the male were higher than the female death-rates, the averages being 30.59 for males and 29.99 for females.

101. The exceptionally unhealthy autumn of 1900 resulted in a considerable decline in the birth-rate in the Punjab and only 712,553 births were registered, equal to a birth-rate of 35.4 per thousand of the population. In only three districts, Sialkot (44.1), Gurgaon (40.6) and Gujranwala (40.1) were the rates over 40 per mille, while in four, Umballa (29.1), Montgomery (28.5), Ferozepore (28.2) and Simla (15.8) they were under 30. In the district of Jhang alone, was the birth-rate in excess of the quinquennial mean, and in twelve districts the births were exceeded in number by the deaths. The provincial percentage of male to female births was 110.1, the percentage ranging from 119.9 in Dera Ghazi Khan to 106 in Ludhiana.

The recorded deaths numbered 726,611, against 980,211 in 1900, and the death-rate was 36.1 per thousand. In several of the districts, notably Ludhiana (52.2), Karnal (51.5) and Ferozepore (48.8) excessively high rates were registered. Ludhiana and Ferozepore were among the ten districts in which plague occurred, but in neither of them was the death-rate attributed to plague high; in both districts, however, as well as in Karnal the fever and "all other causes" death-rates were high, which in the cases of Ludhiana and Ferozepore is suggestive of the faulty registration of plague, or of the occurrence of some other very fatal epidemic disease.

The urban death-rate was 37.71, or 1.75 per mille higher than the rural death-rate. Enormous death-rates were registered in many of the towns, Rahon, where to plague and "other causes" death-rates of 8.55 and 49.48, respectively, were ascribed, heading the list with a death-rate of 90.97 per thousand, Zaffarwal a small town in the Sialkot district, followed with 89.09 per thousand, including 36.47 from plague. The next highest death-rate was 88.38 recorded in Kila Sobha Sing, also a small town in Sialkot where the significant death-rate of 60.22 was registered as due to fevers, and only 8.39 as due to plague.

The death-rates among the various sects shewed considerable variation, 15.57 among Christians and 44.62 among 'Other Classes' being the extremes; Hindus and Muhammadans died at the rates of 39.14 and 33.58, respectively.

The spring and summer were the healthiest seasons; the maximum mortality was reached in November 5.10 and December 5.08.

The death-rates among infants were 296 and 260 per 1,000 males and females born, respectively. At all age-periods except 40-50 and 50-60, the female death-rates were the higher, the averages being 34.5 for male and 38.1 for females.

In every district, except Jhelum, the female death-rate in 1901 was higher than the male, but the differences were not great in the districts of the Rawal Pindi Division, where, as also in Mianwali, Gurgaon and Rohtak, the quinquennial mean death-rates of males were either slightly higher than, or about the same as, the death-rates of females.

102. In the North-West Frontier Province, which comprises the districts of Hazara, Peshawar, Kohat, Bannu and Dera Ismail Khan, the number of births recorded in 1901 was 60,413 as compared with 62,084 in the preceding year. The birth-rate was 29.5,

ranging in the districts from 33·6 in Kohat to 24·7 in Peshawar. The registered percentage of male to female births was 123·2, the district figures varying between the extraordinary one of 138·7 in Peshawar, and the high one of 111·1 in Hazara.

Deaths numbered 39,208 against 52,103 in 1900. The provincial death-rate was 19·2, varying between 25·6 in Dera Ismail Khan and 16·6 in Hazara. The urban death-rate was 18·28, or '98 per thousand lower than in the rural areas, and ranged from 30·63 in Nawashahr to 13·11 in Kohat and 4·17 in Abbottabad. The Hindu death-rate was 17·44 as compared with 19·53 among Muhammadans.

The lowest death-rates 1·34 occurred in the months of April and September, and the highest 2·06 and 2·05 in November and December, respectively.

The death-rate among male infants was 174·48 and among female infants 153·00, per 1,000 born, respectively.

At all age-periods, except 1-5 and 50-60, the female death-rates were the higher.

103. Only 279,998 births were recorded in the Central Provinces, including the zamindaries, against 313,116 in 1900, and the birth-rate in 1901 was 28·83, a lower rate than any recorded during the last 20 years, except in 1897, when the rate was 26·83 per thousand.

In only four districts, Nimar (37·22), Burhanpur (35·45), Chhindwara (35·35) and Mandla (35·05), were the birth-rates over 35, and in three Raipur (24·64), Bhandara (21·35) and Chanda (20·69), they were under 25 per mille. In five districts the rates were higher than the quinquennial means, but in only two, Bhandara and Chanda, did the numbers of deaths exceed the number of births. The average birth-rate in the towns, 29·21, was slightly in excess of the average in rural areas, 28·80. The percentage of male to female births throughout the province was 105·94, ranging in the districts from 113·41 in Burhanpur, to 101·94 in Damoh.

The number of deaths registered was 227,853, and the death-rate was 23·46, as compared with 57·82 in 1900, and the quinquennial average of 45·56 excluding zamindaris, computed on the larger population of the 1891 census. In only eight of the twenty districts were the rates over 25 per 1,000, the highest being 29·44 in Jubbulpore, 29·34 in Wardha and 29·11 in Burhanpur; while in four districts, rates below 20 per mille were recorded—Bilaspur 19·85, Murwara 19·81, Seoni 19·33 and Mandla 18·77.

The urban death-rate was 28·49 against 23·02 in rural areas, the excess being due to smallpox, bowel complaints and diseases registered under the heading "all other causes." Among the towns, Burhanpur (37·04) Arvi (35·78) in the Wardha district, and Sehora (35·39), in Jubbulpore, had the highest death-rates, and low rates were registered in Pauni (16·66), Saugor Cantonment (16·30), Garhakota (15·16) and Bilaspur (14·05).

Hindus, who constitute the vast majority of the population, died at the rate of 20·67 per 1,000, Muhammadans at the rate of 26·66 and "Other Classes" at the rate of 40·12.

The death-rate was 2·35 in January, and fell fairly steadily to a minimum of 1·45 in July, a gradual rise in August and September was followed by a sudden rise to the maximum of the year, 2·50, in October, followed by rates of 2·39 in November and 2·47 in December.

The death-rate among male infants was 246·41 for every 1,000 born, and among females 224·63. In every age-period the male death-rate was higher

than the female, the average being 25·21 among males and 21·77 among females.

104. The number of births recorded in Berar in 1901 was only 83,762, and the birth-rate was 30·8 per 1,000, as compared with 31·3 in the previous year, and a quinquennial mean of 38·2, calculated upon the *higher* census population of 1891. The falling-off in the numbers of births, as compared with the numbers recorded in recent years, which is attributable to the famine and few marriages in 1901, is common to all the districts; the highest rates being 34·3 in Wun and the lowest 28·9 in Ellichpur. The percentage of male to female births in the province generally was 104·6, ranging from 107 in Ellichpur, to 101·6 in Basim.

But the year was a very healthy one, and the total number of deaths registered was only 75,080, equal to a death-rate of 27·6 per mille, which is almost exactly a third of the rate in 1900, and nearly 21 per thousand less than the five years' mean.

In the districts, the rates varied between 30·2 in Akola and 25·2 in Wun. In the towns the variation was greater, between 38·3 in Anjangaon and 18·3 in Ellichpur, the average being 29·6 against 27·2 in rural circles.

The vast majority of the population are Hindus, and among them the death-rate was 27·7, followed by 27·4 among the small population of Christians. Muhammadans died at the rate of 25·6, and "Other Classes" at the rate of 29·3.

The monthly death-rate, which was 2·7 per mille in January, fell steadily with the exception of a slight rise in April, to a minimum of 1·3 in June, after which the rise was fairly rapid to a maximum of 3·4 in October, followed by a gradual fall to 2·8 in December.

The death-rate of male infants was 205·30, and of females 187·92, per 1,000 born, respectively, while boys and girls over one and under five years of age died at the rates of 68·0 and 61·4 per 1,000 living. At the age-periods between 10 and 40 years of age, the female death-rates were the higher, the average for males at all ages being 27·9 and for females 27·4 per thousand.

105. The total number of births recorded in Madras was 935,749 or 113,450 fewer than in 1900, the deficiency being attributed by the Sanitary Commissioner of the Presidency to the depressing influence upon fecundity of the high prices of food grains in 1900. The birth-rate was 25·1 per thousand, considerably less than the birth-rate of the preceding year, and less than the five years' average calculated upon the same population. The highest birth-rate was 37·1, registered in the urban district of Madras, and this was followed by rates of 31·8 and 30·5 in Tinnevely and Tanjore, respectively. In Ganjam (20·5), North Arcot (19·1) and Madura (16·1) the lowest rates were recorded. The average urban birth-rate was 30·7 per thousand as compared with 24·6 in the rural circles. The percentage of male to female births averaged 104·2, and ranged from 108·1 in Ganjam, where registration is very defective, and 106·2 in Godaveri and North Arcot, to 99·8 in Nellore, a district in which the population is nearly a million and a half, and where the percentage in 1900 was 102·2.

The recorded deaths in 1901 numbered 796,140, or about 25,000 more than in the preceding year, and the death-rate was 21·3 per thousand.

The variation in the districts was extreme, from 55·5 in Madras, where the highest rates under the headings fevers, dysentery and diarrhoea and 'other causes' were registered, to 10·9 in Madura. In Chingleput (30·1), South Canara (26·0) and Tanjore (24·7) the rates were comparatively high, and in Ganjam (14·8)

and Vizagapatam (14·6) they were very low. Plague occurred in fifteen of the twenty-two districts, but the death-rates recorded as due to it were low, except in the cases of Bellary (1·1) and Salem (·7).

The urban death-rate was 32·7 or 12·3 per 1,000 in excess of the rural rate. The town of Vaniyambadi in the Salem district suffered very severely from both plague (64·1) and cholera (27·7), the total death-rate being 141·3, including 40·6 per mille registered under 'other causes.' In Bellary the death-rate was 48·1 per mille, including 12·1 from plague and 26·6 from 'other causes.'

The death-rate among Christians was 17·0, among Hindus 21·6 and among Muhammadans 22·5. The death-rate among 'Other Classes' was reported to be 4·4 per mille and furnishes an example of defective registration; in Ganjam the population of 'Other Classes' is 277,377 and the number of deaths reported among them was 53; in Cuddapah the 'Other Classes' total 353 and the deaths recorded 124.

The monthly death-rates were lowest in March, April and May, highest in October, November and December.

The death-rates among infants were 174·54 and 159·33 per 1,000 males and females born, respectively. At all age-periods except 15-20, the male death-rates were the higher, the averages being 22·2 for males and 20·5 for females.

106. The number of births in the small province of Coorg was 3,401, as compared with 4,542 in 1900, and the average birth-rate, which ranged in the districts from 28·34 in Padinalknad Taluk to 14·50 in Kiggatnad Taluk, was 18·83. The rates are said to be necessarily low owing to the large number of temporary immigrants included in the census population. The percentage of male to female births was 98·31, varying between 103·80 in Yedenalknad Taluk and 92·18 in Padinalknad Taluk.

The number of deaths recorded was 6,590, and the death-rate was 36·49 varying from 43·89 per mille in Padinalknad Taluk and 29·35 in Kiggatnad. The death-rate in the towns was 53·18, ranging from 83·82 in Verajendrapet, where dysentery and diarrhoea caused a death-rate of 20·79, to 23·13 in the village of Fraserpet.

The greatest mortality occurred in June, May and July, and the least in October and November. Muhammadans died at the rate of 39·62 per thousand and Hindus at the rate of 36·08. The death-rates among male and female infants were, respectively, 287·07 and 283·38 per 1,000 born. At all age-periods, except 15-20 and 30-40, the male death-rates were the higher, the averages being 36·80 among males and 36·09 among females.

107. The depressing effect of conditions of famine on fecundity is strikingly shown in the Bombay registration returns of 1901. The number of births recorded was only 465,647, a smaller number than any registered since 1882, and no less than 177,067 fewer than the mean number recorded in the ten years ending with 1900. The birth-rate was 25·19 per mille. In seventeen of the twenty-five districts the birth-rates were lower than the death-rates, the excess of the latter over the former reaching the excessive proportions of 60·30 per mille in the city of Bombay, and 48·56 per mille in Belgaum. The highest district birth-rates are 33·43 in Khandesh, 32·41 in Broach and 31·89 in Ahmednagar. In ten districts the birth-rate was below 25 per mille, the lowest being 17·48 in Bombay, 15·06 in Hyderabad and 8·36 in Thar and Parkar, in which district it is stated that the extraordinarily low rate was due to the exodus of the people on account of the scarcity. The urban birth-rate, 22·72, was lower than the rural rate by 2·85, the deficiency being in part

due to families leaving the towns on account of plague, and in part to the greater deficiency of registration in the towns. The effect of famine on the birth-rate, which began to show itself in April 1900, reached its climax in March 1901, when only 24,840 births were registered, after which the numbers gradually rose to the maximum of 54,554 in October; and in December the number of births recorded was rather higher than the average number recorded in that month.

Compared with the appalling mortality of 1900, when the recorded deaths numbered 1,318,783, the total of 1901 looks small, but the number of deaths recorded, 686,134, is greater than the number recorded in any other year. The death-rate of the Presidency was 37·12, varying in the districts from 77·78 in the city of Bombay, to 13·21 in Upper Sind Frontier.

The rates were over 50 per 1,000 in four districts besides the city of Bombay, namely, Belgaum, 71·91, Dharwar, 71·26, Ahmedabad, 52·68 and Broach, 50·38.

In Bombay, Belgaum and Dharwar the excessive rates resulted from plague, but in Broach the death-rate, including only 6·50 per mille ascribed to plague, was due to high-rates under 'fevers' and 'other causes'; while in Ahmedabad it was due to the excessive rate of 43·69 under 'fevers.' Low rates were recorded in Ratnagiri (21·10) and in all the Sind districts, except Karachi. The death-rates in the towns averaged 57·85 against 34·01 in the rural areas. The plague death-rate in the towns was 15·15 against 5·7 in the districts; the fever rates in town and country were 14·46 and 16·0; the dysentery and diarrhoea rates, 4·35 and 3·09, and the 'all other causes' rates 22·33 and 7·83. Plague deaths occurred in thirty-six of the sixty-three towns, the death-rates from this cause being in many instances enormous, *e.g.*, in Dharwar the plague death-rate was 58·67 and the total death-rate 105·58, in Hubli, also in the Dharwar district, the plague death-rate was 51·12 and the total death-rate 83·99, in Gadag-Bettigeri the plague death-rate was 47·96 and the total death-rate 75·33 per thousand. In the small town of Gogha, in the Ahmedabad district, the death-rate was 177·37 per 1,000, including 27·72 from plague, and 103·38 ascribed to fevers.

Parsis died at the rate of 27·14 per mille, Muhammadans at the rate of 28·10 and Hindus at the rate of 39·69.

The greatest mortality occurred in the months of December, November and October, and the least in May, June and July.

The registered mortality among male infants was 198·13, and among female infants 189·28 per 1,000 recorded births, respectively. In the age-periods, 5-10 and 15-20, the female death-rates were the higher, the average death-rates of the sexes being 37·52 among males and 36·70 among females.

108. The number of births registered in Lower Burma was 177,865, or 6,682 more than in 1900, and the birth-rate was 32·07.

Burma.

The rates in the districts varied greatly, from 40·68 per 1,000 in Henzada, 38·72 in Tharrawaddy, and 37·80 in Sandoway, to 27·83 in Akyab, 25·94 in Thaton, and 25·33 in Toungoo. The lowest rate recorded was 12·70 in the urban district of Rangoon, where the proportion of males to females is as 2·3 to 1, and registration is apparently very defective. In the towns generally, birth registration is more defective than in the country, rates varying between 61·73 and 44·91 in the little towns of Zigon and Kawkareik, and 18·61 in Akyab, where females constitute less than a fourth of the population. The average urban birth-rate was 24·19 against 33·14 in the rural circles. The average percentage of male to female birth was 107, ranging from 112 in Pegu and Mergui to 104 each in Prome, Henzada and Thayetmyo.

There were 120,565 deaths registered, as compared with 122,714 in the preceding year, yielding a death-rate of 21·74 per thousand. The urban district of Rangoon, from which the lowest birth-rate was returned, furnished the highest death-rate, 33·17 per mille, being followed at a distance by Hanthawaddy (25·25), Henzada (24·45) and Mergui (24·22). The lowest death-rates were recorded in Toungoo (15·77), Tavoy (16·64) and Thaton (17·02). While the average recorded urban birth-rate was much lower than the rural rate, the average death-rate was higher in the towns (29·99) than in the country (20·62).

The variation in the town death-rates, though considerable, was not excessive, the highest being 38·42 in Pegu, and the lowest 16·52 in Sandoway.

In each of the last six months of the year the number of recorded deaths was greater than in any of the first six months; the lowest death-rates being recorded in March, May and April, and the highest in August, July and December.

The death-rates among infants were 206·59 and 168·61 per 1,000 born respectively. In every age-period the male death-rate was the higher, the averages being 23·06 for males and 20·24 for females.

Christians, of whom the total number was 133,540, are shewn to have died at the rate of only 11·97 per 1,000, but this is manifestly wrong, for among 27,330 Christians in Toungoo district, only 50 deaths were reported. Buddhists and "Others" died at nearly the same rates, 22·13 and 22·36, respectively, but the death-rate of Hindus was 25·59 against only 16·26 among Muhammadans. The principal reason for this difference appears to be the fact that the majority of the Muhammadans are resident in the district of Akyab, where registration is very bad; and it is probable that mortality among Hindu immigrants is unduly high.

In Upper Burma births and deaths were registered in thirteen towns, and deaths were recorded in certain rural tracts also.

The average birth-rate in the thirteen towns was 37·66 per 1,000, and the average death-rate 33·27; the birth-rates varying between 47·38 in Pakokku, and 23·36 in Minbu; and the death-rates between 35·80 in Mandalay, and 16·31 in Pagan.

The Provincial Sanitary Commissioner is satisfied with the progress of registration in all the towns except Minbu; but, while the numbers returned may be not far short of the truth, greater accuracy in details might be expected; for instance, although the average percentage of male to female births in the thirteen towns was 105, the percentages ranged from 145 in Minbu, to 90 in Myingyan and Salin.

109. The average number of births recorded during a year in Ajmer-Merwara in the quinquennium ending with 1900 was 15,431; in 1900 the number registered was 7,958, and in 1901 the number has fallen to 7,679, equal to a birth-rate of 16·10 per thousand. The percentage of male to female births recorded was 119·15, as compared with 123·79 in 1900. The number of deaths registered in 1901 was 15,798 against 65,067 in the preceding year, and the death-rate 33·13 per mille as compared with 119·97 in 1900. The urban death-rate was 39·06, as compared with 30·91 in the country. Hindus and Muhammadans died at the rates of 35·42 and 31·56 respectively. Male infants died at the rate of 236·9 per 1,000 registered births and female infants at the rate of 254·6. Between the ages of 10 and 40 females died at a greater rate than males, the averages for the sexes being 33·15 for males and 33·10 for females.

SECTION VI. GENERAL POPULATION.

HISTORY OF THE CHIEF DISEASES.

110. Just as in the case of enteric fever, one of the chief difficulties with regard to suspected water examined, is the rarity (not so great as in the case of enteric fever) of finding the true microbe and the frequency of finding microbes like it. There is the same kind of doubt as to how far these cholera-like microbes may be dangerous, and whether they may not be a stage of existence of the true comma. Heim has called attention to the value of a blood decoction as an addition to his original enrichment process for the detection of the cholera microbe in water. The statements of Firth that in India he found the danger signal of cholera in water to be the presence of a large number of fluorescent vibrios, and that previously healthy waters in which these vibrios suddenly appeared were certain to cause an epidemic of cholera in a few weeks, require confirmation. It has been pointed out in Egypt from actual experience that specimens of stools, etc., which in the fresh state readily yield the vibrio, may after the time spent on a twenty-four hours' journey to a laboratory give but a negative result. The use of potassium permanganate for the disinfection of wells has, as usual, been frequently resorted to during the year; but though opinion on the whole is favourable, there is no proof of its efficacy; and it may be mentioned that recent experiments tend to throw discredit on present chemical means of water purification (see Section II, paragraph 9). The importance of flies in the spread of the disease, symbiosis as a factor in cholera causation, and the fresh vigour which cholera is supposed to have acquired about the year 1817, are all old points which have lately been brought up again. L. Rogers has extolled the leucocyte count as a simple and rapidly applied guide in diagnosis and prognosis.

111. The cholera mortality of India in 1901 was reduced from that of 1900 by over 67 per cent, and was less than in four of the six years preceding, of which 1900 had the highest ratio, and 1898 and 1899 the lowest. There was a decrease in every month of the year, except January; but the diminution was greatest in March-August. Every province had a lower ratio, except Madras and Coorg, the difference being greatest in the Central Provinces and Berar. The three highest ratios were, in order, those of Bengal, Assam, and the United Provinces. No province was quite free. Further details are given in the paragraphs below.

112. In Lower Burma during the ten years, 1892—1901, the highest registered death-rate from cholera was 1·89 per 1,000 in 1897 and the lowest 0·53 in 1893, the ratio of 1901 being 0·64. The districts which suffered most in 1901 were Prome, Thongwa, Myaungmya, and Amherst; and urban mortality was highest in Kyaiklat, Danubyu, Yandoon, and Pegu. Two districts and sixteen towns returned no deaths. The fact that the fatality comes to 98 per cent of cases indicates that non-fatal cases were not often reported. In the selected towns of Upper Burma only one death was recorded.

113. The mortality from cholera in Assam was less than half the average for the last fifteen years; and the actual number of deaths was lower than in any year of the preceding nineteen. I wish, says the Sanitary Commissioner, I could think that this favourable result was due to improved sanitation and efforts made by the people to cleanse their surroundings, but I cannot. There was a succession of small epidemics in the Cachar and Kamrup districts. In the Lakhimpur district more than half the deaths occurred in tea-gardens, and there was also a smart outbreak, causing 182 deaths, in the railway camp at Tipling Ghat. The Nowgong district, which had been severely visited in 1900, registered but few deaths in 1901. The highest district ratios were those of Kamrup, Cachar, and Lakhimpur; and the highest town ratios those of Silchar, Dhubri, and Karimganj. For tea-gardens the ratio of mortality was 2·17 per mille. The number of tea-garden cooly-immigrants fell off considerably, but the proportion of deaths occurring amongst them while in transit from Goalundo to the port nearest to the place of their employment also diminished; and the Sanitary Commissioner ascribes this to greater precautions taken on the steamers and to greater care exercised not to ship infected coolies. This may be so, but rates as low have occurred before.

114. Only six times in the twenty-four years preceding is the number of deaths from cholera in Bengal seen to be less than in 1901, though the 1900 mortality had been the highest on record. Nevertheless, the disease visited every district except Ranchi in 1901, attacked 18,806 villages, and assumed an epidemic form in 43 areas. The highest district ratios were those of Puri, Cuttack, and Balasore all in the Orissa Division; and the highest town ratios those of Maheshpur, Ghatal, and Revelganj. Excepting in Puri, Balasore, Midnapur, Chittagong, and Hazaribagh, the district mortality was everywhere lessened, and only ten districts had a death-rate over 2 per 1,000. In the absence of fuller explanation, the remarks of the Sanitary Commissioner on the connexion between deficient rainfall and cholera are somewhat obscure. The medical officer of Puri traces the outbreak in epidemic form to the contamination of the drinking water at Balunga *mela* held in Pipli circle; and the medical officer of Balasore to importation by pilgrims *en route* to and from the Jagannath festivals at Puri; but in neither case are materials offered for the formation of a critical opinion on these statements. The disease prevailed throughout the year in Orissa, was never prevalent in Chota Nagpur, and in Bengal proper was somewhat severe in January-May and in December. "Good results" were reported from twelve districts from the disinfection of wells with potassium permanganate. In the Muzaffarpur district applications were actually made for a supply of the disinfectant, but in some other districts its use was strongly objected to. The subject of inoculation will be mentioned below. Among the European seamen of the port of Calcutta there were 5 deaths from cholera, and 63 in the native floating population.

115. The number of deaths from cholera in the United Provinces, though much lower than in 1900, was otherwise higher than in any year since 1896; and the ratio was higher than that of the lustrum. The mortality reached its maximum in October. The highest district mortalities were those of Hardoi, Rai Bareilly, and Lucknow, all in the Lucknow Division; and the highest town mortalities those of Sahatwar, Bilgram, and Barhaj. The districts of Almora and

Cholera in Assam. Appendix A, Statements I, II, III.

Cholera in Bengal. Appendix A, Statements I, II, III.

Cholera in the United Provinces. Appendix A, Statements I, II, III.

Hamirpur were free, and the number of deaths in Dehra Dun was only five. Details are not given of the reported efficiency of potassium permanganate for the disinfection of wells; but the benefit in times of cholera is mentioned of the appointment of a couple of Brahmans or Khsattriyas to draw water for all from an uninfected or disinfected well.

116. In only five years, of which two were 1894 and 1898, in the twenty-four years preceding were there fewer deaths from cholera in the Punjab. The ratio also was only one-thirty-second of the quinquennial mean. The mortality in the preceding year had been heavy. The districts of Umballa and Karnal and the towns of Jagadhri and Sujampur had the highest mortality ratios. Only 35 towns or villages in 32,834 registered deaths, and the maximum number was 36 in Jagadhri in the Umballa district. The first three cases there were among persons who had returned from Hurdwar, where cholera was reported to be prevalent. Though the disease did not assume a severe epidemic form, it was present in the town for about two months.

117. In the North-West Frontier Province also cholera was much diminished, the ratio being 80 per cent below that of the lustrum. The districts of Kohat and Bannu were free throughout the year. Most of the cases occurred in the Peshawar district, and chiefly in Tangi village, the first of the 62 cases in Tangi being that of a man who had come from the Swat village where cholera was prevailing. A few cases also appeared in neighbouring villages. The first of Peshawar city's 24 cases was derived from Tangi; and it is stated that after ninety-one wells had been treated with potassium permanganate the disease stopped.

118. In the Bombay Presidency the cholera mortality ratio was about 74 per cent below the mean of the previous five years, and about 92 per cent less than in 1900. Sind was entirely free, and Gujarat nearly so. In January cholera was continuing in five districts from the previous year, the epidemic reached its maximum in April, and in July a further extension of the disease took place. The affected area included 916 villages out of 25,846, and the mean percentage of deaths to attacks was 60.16. Much the highest district mortality ratio was that of Dharwar, and the three next highest were all from the same Registration District. The highest town ratios were those of Kaladgi, Ranebennur, and Gokak, all in those districts. The Deputy Sanitary Commissioner of the Registration District says that the wide diffusion of the disease in the preceding year made it impossible to ascertain the origin of the first cases of 1901, that the disease has been endemic for the last ten years, and that, as usual, it was propagated by human intercourse from village to village amid grossly insanitary conditions.

119. Only in two years of the preceding twenty-four, 1880 and 1898, had there been fewer cholera deaths than in 1901. The ratio was 99.9 per cent below that of the preceding year, and also much below the quinquennial mean. In the district of Akola there were 43 cases with 16 deaths. The outbreaks in the villages of Rail and Dhad were attributed to contaminated water, while that at Dongergaon originated at a feast held by Dheds, thirteen being attacked and two dying. Potassium permanganate was employed to disinfect all wells and polluted sources.

120. A reduction of 99·8 per cent took place in the cholera mortality of the Central Provinces, and only once in the preceding twenty-four years had the number of deaths been less. The ratio of 1901 was also over 99 per cent less than the lustral mean. The districts of Narsingpur and Nimar and the town of Khapa had the highest mortalities. The outbreak at Narsinghpur was ascribed to the arrival of pilgrims from Mathura, where cholera was prevalent. The origin of the first outbreak at Nimar could not be traced; but in the second the disease was imported by a wedding party from an infected village in Indore. The first case in Raipur was a woman returning home from a pilgrimage. Sporadic cases occurred in Nagpur and Chanda.

121. An increase of a little over 18 per cent took place in the mortality of the Madras Presidency as compared with that of the previous year, and a slight increase as compared with the quinquennial mean. The number of deaths had been higher only in three of the preceding twenty-four years. The highest district ratios were in Salem, Anantapur, Cuddapah, and North Arcot; and the highest town ratios in Vaniyambadi, Arcot, Ramnad, Calicut, Ambur, and Nandyal. The Sanitary Commissioner points out that the towns which chiefly suffered in mufassal areas, have water supplies open to fæca pollution, and that in Madras town the inhabitants are allowed to supplement the public water-supply by the use of innumerable wells sunk in a foul subsoil and open to pollution. He also complains that local authorities are not yet alive to the necessity of taking action before the cholera is actually upon them, and that they are prone to allow economy to interfere with efficiency.

122. There had been no cholera in Coorg for two years when it broke out again in 1901, causing 58 deaths. The first outbreak occurred towards the end of April in the Mercara taluk, the disease being imported by a Mappilla coming from South Canara. A second slight outbreak occurred in November, the disease making its first appearance in villages on the South Canara border. In other cases also the infection was traceable directly or indirectly to South Canara.

123. At Purulia during the year 3,335 inoculations were performed among the cooly emigrants proceeding to the tea gardens of Assam, 58 among those proceeding to Trinidad, and 60 among the population of a Manbhum village during an outbreak. Out of 275 uninoculated coolies on board the steamers plying between Goalundo and Dibrugarh in February and March, 8·36 per cent got cholera, ten of the cases ending fatally; while out of 414 inoculated coolies only 1·2 per cent contracted the disease, and none died of it. If inoculations were performed elsewhere, the fact is not mentioned.

124. The mortality ratio of India from smallpox was the same as in 1900, and somewhat below the quinquennial ratio. All the months of the year, except the first three and August, showed a greater number of deaths. The total number of deaths in the preceding year (excluding Mysore and Upper Burma) had been 84,780, and in the year before that 49,113. There was very little smallpox in the towns of Upper Burma. The increase in Assam was chiefly due to several outbreaks in the Sylhet district; and the medical officer reported that most, if not all, of these followed the visits of inoculators, and that the people objected to

be vaccinated with bovine lymph. The provincial Sanitary Commissioner supports him in calling for a more extended application of the Act against inoculation. Not for at least 25 years had there been so high a mortality from smallpox in Bengal as in 1901, and it was higher in every district except eight. Inoculation, says the civil surgeon of Cuttack, in which the disease seems to be increasing in virulence, is carried on throughout the district, and thus the disease is spread: when the outbreak of smallpox is mild in character, children are wilfully exposed to the disease; and when these return to their own villages, an outbreak results, which is not confined to those thus exposed, but spreads among the unprotected with disastrous results. In the port of Calcutta there were three deaths among European seamen and three in the native floating population. In the United Provinces and Oudh, on the other hand, the rate was the lowest on record, and no district or town had a high rate. Nearly two-fifths of the deaths from smallpox in the Punjab were reported from the districts of Montgomery and Jhang; while the Kangra district, said to be the best vaccinated in the province, had, as usual, a low mortality. Some of the municipal towns suffered very severely, and the Sanitary Commissioner complains that the municipal committees do not take enough interest in vaccination. The civil surgeon of Bannu in the North-West Frontier Province brought to the notice of the authorities that the large number of cases in the district was due to inoculation freely carried on by Pathan inoculators, and steps were taken to put a stop to the dangerous practice. Though the death-rate in the Bombay Presidency was not high, Kanara and Ahmedabad were the only collectorates free from the disease. At the outward and inward inspections 30, and on board vessels lying in the harbour or docks of Bombay city 4, cases of smallpox were detected. The death-rate in Berar was low. The disease was more prevalent in all the districts of the Central Provinces, except Betul and Chanda. The epidemic was a continuation of the previous year's outbreak, and began to wane in June, but waxed again in October-December. The Madras Sanitary Commissioner considers that the high mortality in the town of Cochin was due to the fact that it adjoins an area under independent native administration. In Coorg the death-rate from smallpox was high.

125. For India as a whole there was a great increase in plague mortality, an increase of over 67 per cent. It will be seen in the table that the principal provinces of India, with their native states, shared in the increase. On the other hand Assam, the North-West Frontier Province, Baluchistan, Ajmer-Merwara, Central India, Berar, and Coorg returned no deaths, though the two last had each a fatal "suspicious case." The plague of the Central Provinces and Burma was entirely imported.

A few fragmentary notes will now be given on various points regarding plague, before the mortality from the disease in each province is considered.

126. The chief points mentioned by Power as having been brought out by Low in his study of plague reports from all parts of the world, are the comparative slowness with which plague becomes acclimatized to new conditions; the difficulty of diagnosing the first-occurring cases of plague, owing to its mimicry, at it were, of indigenous maladies; and the apparently varying relation of rats to the spread of the disease. The following words of his might have been written from a study of the Indian reports: "The records to which Dr. Low has had access, though they go

Plague in India. Appendix B, Table IV.

Difficulty of diagnosis. Rats and other animal (?).

to confirm belief that as regards plague man and the rat are reciprocally infective, fail completely in affording sufficient data for determining the degree to which man is in danger through the rat. So far as plague ashore is concerned, it would appear that in particular localities man and the rat suffered from plague coincidentally; that in other localities man suffered before the rat; and that in others again the rat suffered antecedently to man. Further, it would appear that when in a particular district the one (man or the rat) has suffered plague antecedently to the other, the interval between invasion of the first and of the second species has been often a long one extending sometimes over weeks and months. Finally, it would appear that plague may prevail largely among men without rats becoming conspicuously affected; and conversely that the disease may cause large mortality among rats of a locality while neglecting to attack its human inhabitants. As regards plague on shipboard very similar facts were forthcoming. The disease does not, under conditions of sea transit, appear to be at all readily conveyed from the rat to man or from man to the rat. On the one hand ships plague invaded for several weeks in the persons of crew or passengers have come into port with the rats on board them seemingly altogether exempt from disease; and on the other hand, ships infested with plague-smitten rats have, after voyages of considerable duration arrived at their destinations wholly free from plague as regards crew and passengers." That rats play a part in the spread of the disease is considered by Kolle and Martini as the most important lesson of the present outbreak in the world. The rat and not man, says Davies, is the primary sufferer from plague, and it is by the rat, and perhaps by the rat alone, that plague is spread: human plague is preceded by the epizootic, and the real danger to importing countries lies with plague rats, not with plague-stricken men: the infected rat is mainly distributed through the world by ships: local diffusion is but little due to contact with plague-stricken persons, and the only prophylactic of much value is the destruction of rats and their nests, burrows, and habitual haunts: the recrudescence of plague in a city means that the disease is probably present as an epizootic, and that its further spread is independent either of the sanitary condition of the locality where the sporadic human cases have happened to occur or of the incubation period of plague in the human subject: "contacts" now mean not those who have been exposed to human plague but those who may become exposed to rat infection. So, according to Kolle and Martini, rats are to plague what water is to cholera, plague is as much (if not more) a rat disease as a human pest, and plague is a disease of rats which only occasionally attacks man. Maxwell in Changpoo estimated that men were attacked about a week after the rats. In Manilla about 17 per cent. of the rats captured were found infected with plague. But in Glasgow, though rats were plentiful, they seem to have escaped, and nearly 300 of them were examined for the plague bacillus in vain. Again, Edington and also Schilling have described epidemics among rats not due to the real plague bacillus; Klein has demonstrated in the bodies of dead rats taken from a ship arriving at Bristol a microbe like the plague bacillus but with cultural characters between those of *B. coli* and those of *Bact. lactis aerogenes*; Tartakovsky has pointed out that the common pseudotuberculosis bacillus of rodents is very like the plague bacillus; and Galli-Valerio urges that confusion in the diagnosis of plague by the inoculation of guinea-pigs might arise from the fact that the *B. pseudo-tuberculosis rodentium* might be present in the guinea-pigs, the two bacilli exhibiting many points in common. An important case was reported in which a ship sailing from

a port not at that time known to be infected had at the end of 29 days of the voyage a minority of her rats affected ; and two men ultimately fell ill. Another ship left an infected port and was disinfected, but plague appeared in 27 days from the time of leaving the infected port, and infected rats were found on board. From January to March of one year at Marseilles the rats of 7 out of 44 ships were found infected. Kossel and Nocht, on the other hand, found dead plague rats on board a steamer in which no human plague cases had occurred. Other animals which for the first time have been found to be infected are bats, wallabies, and kangaroos, and in all the infection was supposed to have been conveyed by fleas.

127. When hungry fleas, says Ziroia, are allowed to suck ; they void blood in streams two or three times, to make room for filling themselves again and again, and thus sow the bacillus over the skin : also the bacilli remain alive and virulent in the fleas for about a week, and during this time may be found in their excrement. Laveran and Mesnil have shown that the flea seems to take a part in the transmission of trypanosoma from rat to rat. The life cycle of the flea, according to Howard, is complete in 17 days. In Egypt Kolle personally experienced the possibility of taking away fleas on his clothes from plague dwellings without being any the worse, and he and Martini think the importance of insects in the spread of plague has been overestimated by Simond and Ashburton Thompson : their own experiments with animals were negative : fleas containing plague bacilli went over to sound animals without infecting them : they agree with Nuttall and Galli-Valerio : the flea question appears to them rather academical, as there are so many ways in which infection might pass from rat to man : the fact of the transference of infection from rat to man is more important than the question as to how it is transferred. In the words of another, that the parasites of the plague-infected rat, although charged with plague bacilli, do actually cause plague in man has not been proved, but is the only link in the cycle of evidence actually wanting. Goodall remarks that the parasites of the mammalia are rarely interchangeable. In former reports it has been shown how Galli-Valerio failed to make rat-fleas bite him. He has lately published an account of what has been done on the subject, and concludes that so far from its being possible to assert as an established fact that plague is transmitted to man by the bites of the fleas of rats and mice, and that this is the most frequent and important means of infection, it requires to be demonstrated not only that the fleas pass from rats and mice to men but that they pass from rat to rat. In these views Galli-Valerio has of course the support of Nuttall.

128. The chief advance in the method of securing the destruction of rats and insects appears to be the Clayton process, which could be used on land as well as on shipboard, and the most recent experimental evidence in its favour is that of Calmette and Hautefeuille, who used a ship in their tests. The Clayton gas is a mixture of the sulphurous and sulphuric anhydrides. Haldane also reports favourable results from carbonic oxide ; and others have found carbonic anhydride of use. But these methods require to be perfected, in view of certain difficulties which are met with in practice. For rooms Fulton and Stokes recommend hydrocyanic acid gas. The method of Danysz continues to meet with faint praise, though Wiener, like Bronstein, states that its virulence can be raised by the use of an alkalinized medium. The same procedure can be used for Issatschenko's and Grimm's bacilli, which are considered to be identical.

Measures against rats and insects. (*)

129. Caldas holds that the plague bacillus is but a rat colon bacillus of high virulence. Klein has shown that the bacillus of Danysz and that of Gärtner are indistinguishable except by habitat, both belonging to the colon group; and in the discussion on his paper Foulerton and MacFadyean were quite prepared to consider them identical. Again, Voges states that in the dead bodies of rats there is some difficulty in distinguishing the bacillus of Danysz from the plague bacillus. In the same way, Tartakovsky and also Galli-Valerio have pointed out that the *B. pseudotuberculosis rodantium* is very like the plague bacillus morphologically and culturally; and the former found that it forms stalactites indistinguishable from those of the plague bacillus. Another caution as to bacillary diagnosis is given by Rosenfeld, who finds that other bacilli give involution forms on salt agar, though a careful and experienced observer can distinguish those of plague from the others. Galli-Valerio, however, points out that the involution forms of the glanders bacillus are very like those of the plague bacillus; and suspects that in both cases the so-called involution forms are really normal developmental forms. Sata found that up to the fourth day after death the bacilli could be isolated from bodies by cultivation, but that animals could still be infected for about 16 days; and the experience of Kolle and Martini was that they perished in 10-14 days. Old cultures that had been preserved for from twenty months to four years were discovered by Schultz to be still virulent.

130. The delicacy of the skin-rubbing method (referred to in former reports) for the detection of the plague bacillus suspected to be present in any medium has been extolled by Kolle and Martini, Dürck, and Fritsche. The first-named found it demonstrate the presence of that bacillus when cultivation and ordinary inoculation had failed. Fritsche states that it is the only one of the hæmorrhagic septicæmic group which kills when so inoculated; and that it enters by the lymphatics, while anthrax enters by the hair follicles, and the pneumococcus by the capillaries. Kolle and Martini's experiments showed that passage through the rat, mouse, or guinea-pig, especially if the infection had been effected by inhalation, enhanced the virulence of the plague bacillus, but not passage through the rabbit. As Kolle and Martini say, while plague patients do not directly infect, except in the pneumonic form, they are nevertheless dangerous. Speaking of his experience in South Africa and India, Blackmore asserts that in no case was there direct evidence of conveyance from man to man, but that rats and fleas, and sometimes soil, were necessary intermediaries. Voges, like others quoted in former reports, found the bacillus in the sputum in certain cases, even after convalescence had been established; and even when there was no pneumonia discovered the bacillus in the mouth and pharynx. The danger of this to men and rats is obvious. Schottelius also states that the bacillus may be found in the sputum and bronchial secretion of the majority of plague cases, at least when they have become septicæmic before death. The view that man derives the disease from the soil—the order of infection being rat, soil, man—is strongly urged by Farrar.

131. Whether it be the case or not, as quoted by Sticker, that the homes of the original conveyers of plague are discovered in the colonies of the Asiatic marmot; the observations of Chayton White have made it almost sure that *mahamari* is plague. In studying an outbreak in Garhwal, he was able to show with an approach to

certainly that the disease had not been imported from the plains ; and he succeeded in obtaining from patients smears and cultures in which the plague bacillus was identified by Hankin, Haffkine, and himself. Specimens were sent to Europe for further examination.

132. There was increased prevalence of plague throughout Bengal, severest in Calcutta, in all the districts of the Patna Division except Champaran, in Monghyr of the Bhagalpur Division, and in Hazaribagh of the Chota Nagpur Division. As in the previous year, the Patna Division, and especially the district of Patna, suffered more than any other ; and it also suffered more than in 1900. The disease was first imported into a village near Barh in September 1899, and gradually spread, chiefly in the most densely populated areas. The epidemics in the Saran, Gaya, and Monghyr districts were continued from 1900. The districts of Shahabad, Muzaffarpur, Darbhanga, Sonthal Parganas, Hazaribagh, Palamau, and Manbhum were infected during the year from the districts of Patna, Gaya, and Saran. The direction in which plague spread, says the Sanitary Commissioner, is very characteristic ; it generally followed rapidly along trade routes and main routes, and very slowly indeed in purely agricultural parts. Seasonally the epidemic followed the same course as in the preceding year : it was comparatively quiescent during the hot weather and rains. With regard to the district of Saran, however, it is noted that while the towns attacked remained almost free in the second half of the year, in the rural areas the disease continued throughout the year. The people readily resorted to evacuation, but were against disinfection. Inoculations were performed in the Saran, Monghyr, Gaya, and Patna districts ; but only in Gaya district was the number very large, some of the educated natives in Gaya town being themselves inoculated and promoting the measure. The Sanitary Commissioner asserts that not infrequently houses shortly after disinfection have been reinfected by persons or rats. He is of opinion that man is the chief agent in the spread of the disease, and that inoculation is a more useful measure than disinfection.

133. There was the usual exacerbation in the beginning of the year, attaining its height in the week ending 23rd March. It began earlier than in 1900, reached its maximum earlier, and subsided more rapidly. As before, Ward V was the first to show the recrudescence. The epidemic was, if anything, less severe ; and the apparent increase is attributed to greater success in finding cases. There was a special tendency among Mussulmans to conceal cases, especially female cases. The facts were believed to indicate that the infection is one of locality, though the cases do not always occur in the same houses in successive outbreaks. One of the most striking features of the epidemic was the marked intensity of the outbreaks in dal and grain godowns. Though the Special Health Officer himself does not believe in the agency of rats, his assistants are strongly impressed with the importance of the part they play. The Special Health Officer believes that the disease is but slightly contagious, and that both rooms and men are probably infected through the medium of airborne dust ; that dark haunts of the disease which cannot be disinfected should be destroyed ; that otherwise disinfection is the best measure against plague, because it renders the house at once habitable, and reinfection is rare, at least in the same epidemic or within six months. One hundred and eight vessels arriving from plague-infected ports were

boarded ; but no cases of plague were found, though four of the vessels were "suspected ships," and were quarantined until they had been disinfected. No "infected ships" arrived in port, and no cases were detected among the crew or passengers of outward-bound vessels, though some of the rejected persons may have afterwards developed the disease.

134. Plague was prevalent in the districts of Benares, Ballia, Allahabad, Plague in the United Provinces. Appendix B, Table IV. and Jaunpur; small outbreaks occurred in Agra, Mirzapur and Azamgarh; and scattered cases were reported from Partabgarh, Ghazipur, Sitapur, and Gorakhpur. In the middle of January the disease broke out almost simultaneously in the Benares and Ballia districts. The first outbreak in Benares prevailed chiefly in the city and in a village in its vicinity, and lasted to May; while the second began in October and subsided in December. In the city the classes trading in food-stuffs were particularly affected. Inoculation was purely voluntary, and the number inoculated up to August was only 1,172. The second outbreak was confined to the city, and is believed to have proceeded from foci established during the first. The first case in Ballia is understood to have occurred at Raniganj, a large market town having trading relations with the infected Saran district, and by the end of the year the disease had appeared in 66 villages. In the Allahabad district the source of the infection was not traced, but the first cases appeared in March in a village near Mau Aima, and Mau Aima had suffered from plague in the preceding year. The disease had fairly established itself in Allahabad city in September. At the end of the year plague was still gaining ground in the district. To Jaunpur the pest spread in the month of March. The Agra cases were, with one exception, confined to the city and its suburbs, and the disease was successfully stamped out. Mirzapur was infected by refugees from Benares. In four villages of the district of Garhwal 23 fatal cases of *mahamari* were observed.

135. The enormous increase of mortality from plague in the Punjab is Plague in the Punjab and in Kashmir. Appendix B, Table IV. ascribed by the Sanitary Commissioner to the relaxation of all compulsory measures; and the disproportionate mortality among females to the fact of their being more in the infected houses than the men. But the monthly progress of the disease was not unlike that recorded in other provinces. The great majority of the deaths were reported in the districts of Jullundur, Hoshiarpur, Gurdaspur, and Sialkot. In the Jullundur district a great extension of the disease occurred in March, and though the number of cases diminished in the hot weather, there was not the usual complete cessation. The Hoshiarpur district remained free till March, when it was reinfected from the Jullundur district, and after that the disease did not entirely disappear. The plague of the Gurdaspur and Sialkot districts was continued from the preceding year, and increased greatly in the earlier months of 1901. In all these districts the second extensive rise began in September. The vast majority of the cases were of the bubonic type, though some were pneumonic or septicæmic. A mild and less fatal form is said to have prevailed in two tahsils where inoculation had been largely performed. As far as the Chief Plague Medical Officer could obtain information, infection of villages seemed in nearly all cases to be due to human intercourse, directly or by means of clothes, etc., and in no instance could proof be got of the introduction of the infection by rats, though in many villages large numbers of dead rats were seen before the disease had spread.

Plague in the Jammu province of Kashmir was imported from the adjacent British districts of Gurdaspur and Sialkot. It began in February in the village of Rara, and up to the 7th July fifteen more, including the town of Samba, had become infected. On the 21st August the disease, which had died down, reappeared in the village of Chhanni, and afterwards in other villages; and towards the end of December it reached the city of Jammu. The epidemic was at its worst in the months of November and December. It is stated that infection was generally observed to pass readily from patients to their attendants or even visitors, so long as the former remained in their dark and ill-ventilated houses; but that after their removal into tents or chhappars in the open, the number of attendants who took the disease from their sick charges was strikingly insignificant. About twice as many women were affected as men, which was ascribed principally to their being more in the house than men. The Kashmir plague authorities believe "desiccation" to be superior in efficacy to chemical disinfection.

136. In the Madras Presidency the towns of Vaniyambadi, Bellary, and Ambur suffered most. Bellary was infected by cases imported from the Bombay Presidency and concealed by householders. Elsewhere the infection was derived directly or indirectly from Mysore territory, no less than 120 cases having been removed from trains at the Jalarpet inspection station alone. In connexion with certain investigations of one of the civil surgeons, the Sanitary Commissioner suggests that the possibility of primary infection of the intestine through water may perhaps require investigation. The question has also been raised in Madras whether under special circumstances certain kinds of snakes may not be susceptible to plague. There was no epidemic in the city of Madras. No information is available as to the progress and features of the plague in Mysore, but plenty of correspondence as to the measures which were or ought to have been taken there.

137. In the Bombay Presidency the number of towns and villages affected was 1,582 against 587 in the previous year; and the mortality was the highest recorded since the first appearance of the disease in 1896. All the collectorates in the presidency were affected, except Thar and Parkar, Larkhana, and Upper Sind Frontier, those suffering most being Belgam, Dharwar, Satara, and the city of Bombay, with death rates between 34 and 19. Then came Karachi, Broach, Surat, Poona, and Thana, with rates between 7 and 4 per 1,000. In the collectorate of Khandesh the number of deaths rose from 8 to 2,676, and in that of Kolaba from 140 to 1,116.

138. In the city of Bombay plague was present throughout the year, the maximum being in March, with a secondary maximum in September. During the month of January there was a rapid increase in the epidemic pervading every district. The people had grown so accustomed to the plague that there was absolutely no panic of any kind; the plague staff met with no actual opposition; and in many cases the people showed that they appreciated disinfection and evacuation. With equanimity and resignation they bore the epidemic, which from the 26th February to the 19th March exceeded in virulence all previous epidemics. Points brought out in the report of the Municipal Commissioner are that those actually engaged in combating the plague were impressed by the part played by rats; that disinfected houses were frequently reinfected, sometimes, at least, by rats; and that

houses which had had cases in 1900 were apt to have them again in 1901. On more than one occasion dead rats sent to the Plague Research Laboratory were found to contain plague bacilli. It was noticed that vagrants were not so frequently attacked as formerly.

At the outward and inward inspections and on board vessels lying in the harbour and docks 73 cases of plague were detected : 51 at outward inspections, 3 at inward inspections, and 19 in harbour. Among the passengers and crew sent to the Port Observation Camp, 51 developed plague ; but in consequence of the rigour of the examination and disinfection, few persons actually suffering from fully developed plague symptoms attempt to leave Bombay by sea. Three cases occurred on outward vessels. The question of the method of clearing ships of rats was under consideration.

139. The village of Bali in the Marwar State contains a large number of bantias who carry on business with Bombay, and there is constant intercourse between the two places. Plague in Rajputana. Appendix B, Table IV. On the 25th of January a bania arrived from Bombay, and walked about the village during the day ; but was found dead next morning. In February plague broke out, and lasted till the 15th April. In March the disease appeared in Sewarhi, about eight miles from Bali, and did not stop till the 15th May. In the two villages 6,820 inoculations were performed. Sixteen of the inoculated persons were subsequently attacked, and eight died.

140. There was less plague in His Highness the Nizam's dominions than in any year since 1897, and during half the year they were free from it. One of the cases in February and the cases in September and October were imported. The districts of Aurangabad and Kopbal recorded 145 out of the 149 deaths. The plague of Aurangabad lasted from January to March, declining from January, and broke out again in December. That of Kopbal did not appear till near the end of the year. Plague in Hyderabad State. Appendix B, Table IV.

141. The fever mortality of India (calculated on the census population of 1901) was 18.1 per cent lower than that of the previous year (calculated on the census population of 1891), and 10.5 per cent below the quinquennial ratio ; the number of deaths falling from 4,860,790 to 4,174,919. The decrease affected all the months of the year, except February, August, and December, and was greatest in October. If the mortality of each of the two years had been calculated on the census population of 1901, the decrease would not have been quite so great. Than Lower Burma only Madras had a smaller death-rate, and the ratio was less than usual. A pamphlet was issued to local authorities and medical subordinates on the etiology, prevention, and treatment of malaria. The sale of quinine from post offices and by private vendors and vaccinators was somewhat less than in the previous year. Urban fever mortality in Upper Burma was greatest in October, November, and December. In Assam fevers were more prevalent than in 1900, and this is believed to be the reason why the sales of quinine increased. The total given for fevers includes 5,856 deaths from kala azar, of which 4,792 occurred in the district of Darrang and Nowgong. The disease has almost disappeared from the Goalpara district, and is much lessened in Kamrup. Sibsagar and the North Lakhimpur sub-division have escaped. In Darrang a few fresh villages have become affected ; but in Nowgong only chronic cases come for treatment, and some parts of the district are reported free. The extent of the disease in the Sylhet district was not discovered until a thorough inspection had been made by a hospital assistant specially deputed for the purpose. Hislop has reported the finding of

cases of Malta fever among natives in Assam; while Bentley, from a study of cases of *kala azar*, has come to the conclusion that *kala azar* is Malta fever. But this conclusion has been assailed by L. Rogers and by Dodds Price, both adversely criticising the clinical and therapeutic evidence offered, and the former specially condemning the serum testing procedure and results.* The Sanitary Commissioner of Bengal believes that the "fever" mortality of the province was unduly raised by the inclusion of plague deaths; that the fevers prevailing throughout Bengal are chiefly malarial in nature; and that the comparative immunity of urban areas is due to better water-supply arrangements and greater facilities for medical aid. There was a falling off in the number of packets of quinine sold; but the largest sales were effected in the months of usually greatest fever prevalence. In the native floating population of the port of Calcutta 33 deaths took place from fever, and 2 from enteric fever among the European seamen. In the United Provinces the mortality, a great deal of which was really due to malaria, but some to plague, etc., was somewhat reduced. The Sanitary Commissioner is inclined to think that money will be better spent in improving surface drainage and filling in tanks and depressions than in organizing so-called mosquito-brigades. Nearly five times as many packets of quinine were sold as in the previous year, the most successful agency being the post office; and the price was reduced towards the end of the year. In most districts of the Punjab there was a decrease of death from fever, especially considerable in those districts which had suffered most severely in 1900. The people of the five districts where mortality was highest had suffered from a severe famine, immediately followed by a destructive epidemic of malarial fever; so that in their weakened state of health they were unable to resist the attack of a mild epidemic in 1901. The attention of civil surgeons and district officers was called to the necessity of draining or filling up all small pools of water in the vicinity of towns and villages, and of encouraging the use of quinine. Arrangements for the free distribution or sale of quinine in the Punjab do not seem to be very far advanced. Besides the jail and regimental cases, it is probable that unrecognized cases of cerebrospinal fever may have been occurring in the civil population. The fever mortality in the Bombay Presidency was low; and the high ratios of Ahmedabad and other four collectorates were considered to be, to a great extent, due to famine causes. Four cases of enteric fever and 227 of other infectious fevers were detected by the Bombay Port Health Officer. The fever mortality in Berar was much reduced. In the Central Provinces too the mortality fell greatly. Practical measures are contemplated for the prevention of malaria. Meantime the sale of quinine has been increased schoolmasters, stamp vendors, and patwaries have been added to the list of agents; and the price has been reduced. The fevers which caused death in the Madras Presidency are considered to be chiefly malarial; and every effort, though apparently not often with much success, was made to induce local bodies to act upon present knowledge as to the part played by the mosquito. The Sanitary Commissioner offers evidence of the occurrence of enteric fever even among pure natives, and of water-pollution sufficient to account for it. According to him, statistics in the Madras Presidency show that the more perfectly water-supply has been extended to a town, the less is the fever rate, notwithstanding that, in the absence of drainage systems, it is exceedingly likely that anopheles pools have been much increased. Coorg registered an increase of fever mortality; and the greater prevalence of fever, as well as the

* See also Bassett-Smith in J. T. M. of 2nd February 1903, page 37.

reduction in the price of the drug, may have been a causative factor in the marked increase in the sale of quinine.

142. The mortality ratio for bowel complaints for India was less than half that of the preceding year, and the number of deaths fell from 523,292 to 247,054. The ratio was also about 26 per cent below the quinquennial mean. The decrease ran through all the months of the year, but was most marked in July-September. The towns returning the highest mortalities in Lower Burma are said to be those which generally head the list, and in which, in addition to overcrowding and its attendant evils, there exist permanent sanitary defects in connexion with conservancy, drainage, and water-supply. As in former years, the rates for the Darrang, Sib-sagar, and Lakhimpur districts are much heavier than those for Goalpara and Kamrup; and investigation has not yet succeeded in suggesting a satisfactory explanation. The highest mortalities of Bengal were those of the same sixteen districts as in the preceding year, though with changes in order. Bowel-complaints generally prevail among the scantily clad people in the cold weather, probably as a sequel to malarial fever. One death occurred among the European seamen and five in the native floating population of the port of Calcutta. It is usual for Garhwal to have the highest mortality among the districts of the United Provinces. The Sanitary Commissioner of the Punjab connects the decrease of dysentery and diarrhoea with the diminution of malarial fever; and the highest mortalities of 1901 were lower than those of the same districts in 1900. In the Bombay Presidency the decrease was considerable, was shared in by all the months of the year, and was probably connected with the diminished area of famine. In Berar the decrease was great. All the districts of the Central Provinces, except four, had lower death-rates. The higher ratio in municipal towns than in rural areas is explained by the Sanitary Commissioner of Madras as illustrating the effect of the aggregation of human beings upon filthy and sewage sodden soil, with contaminated water-supply. The increase in Coorg may have been due to the concurrence of cholera. Nearly half the total occurred in May, June, and July.

Papers quoted in Section VI:

For explanation of abbreviations see end of Section II.

- (1) Baumgarten's Jahresbericht; Nothnagel's Encyclopedia; Kohlbrugge in H. R. XII, page 230; Heim in C. B. XXX, page 570; Firth reported in B. M. J. of 9th August 1902, page 392, and in L. of 9th August 1902, page 384; B. M. J. of 16th August 1902, page 475; L. of 19th October 1901, page 1081; Mackaig in I. M. G. of October 1902, page 401; von Nencki quoted in D. M. W. XXVII, page 864, and Nencki in C. B. XI, page 225; Skrine, quoted in L. of 8th February 1902, page 391; L. Rogers in L. of 6th September, 1902, page 659.
- (2) Power, also Low, in *Reports and Papers on Bubonic Plague*, by Dr. R. Bruce Low, with an introduction by the Medical Officer of the Local Government Board, 1902; Kelle and Martini in D. M. W. XXVIII, page 60; Davies, quoted in B. M. J. of 23rd November 1901, pages 1556 and 1572; Kelle and Martini, quoted in J. P. P. G. IV, page 357, and as above; Maxwell in J. T. M. of 15th January 1902, page 17; B. M. J. of 1st March 1902, page 534; Edington in C. B. XXIX, page 889; Schilling in A. K. G. A. XVIII, page 108, quoted in C. B. XXXI, page 84; Klein in C. B. XXXII, page 673, and reported in L. of 10th May 1902, page 1321; Tartakovsky, quoted in J. P. P. G. IV, page 208; Galli-Valerio, quoted in L. of 23rd August 1902, page

- 544 ; L. of 3rd May 1902, page 1271 ; L. of 31st May 1902, page 1563 ; Kossel and Nocht in A. K. G. A. XVIII, page 100 ; Gosio, quoted in N. 66, page 329 ; L. of 10th May 1902, page 1301, and of 21st June 1902, page 1805, and B. M. J. of 28th July 1902, page 1618.
- (3) Zirolia in C. B. XXXI, page 687 ; Laveran and Mesnil in A. P. XV, page 677 ; Howard, quoted in Munson's *Military Hygiene*, page 430 ; Kolle in D. M. W. XXVIII, page 60 ; B. M. J. of 7th December 1901, page 1719 ; Goodall in the J. of Comp. Path. and Therap. XIV, page 225 ; Galli-Valerio in J. T. M. of 1st February 1902, page 33 ; Nuttall in J. T. M. of 1st March 1903, page 65.
- (4) Calmette and Hautefeuille, quoted in L. of 15th November 1902, page 1331, and in B. M. J. of the same date, page 1608 ; B. M. J. of 1st February 1902, page 294 ; B. M. J. of 4th January 1902, page 13, and of 21st July 1902, page 1541 ; L. of 31st May 1902, page 1563 ; L. of 19th July 1902, page 168, and of 3rd May 1902, page 1271 ; J. T. M. of 15th October 1902, page 315 ; Haldane in L. G. B. quoted in L. of 13th September 1902, page 767 ; Staff in B. M. J. of 6th September 1902, page 730 ; Fulton and Stokes, quoted in L. of 25th January 1902, page 247 ; Rosenau, quoted in B. M. J. of 25th January 1902, page 224 ; Abel, quoted in L. of 1st February 1902, page 341 ; Kolle and Martini in D. M. W. XXVIII, page 60 ; Voges in Z. H. XXXIX, page 301 ; Issatschenko in C. B. XXXI, page 26, and in D. M. W. XXVIII, page 47 ; Markl in C. B. XXXI, page 202 ; Lochmann in C. B. XXXI, page 385 ; Grimm in C. B. XXXI, pages 286 and 459 ; Wiener in C. B. XXXII, page 23, and quoted in D. M. W. XXVIII, Litteratur-Beilage, pages 69 and 185.
- (5) Caldas quoted in Baumgarten's Jahresbericht XVI, page 258 ; Klein and discussion reported in B. M. J. of 23rd November 1901, page 1531, and in L. of same date, page 1414 ; Voges in Z. H. XXXIX, page 301 ; Tartakovsky in J. P. P. G. IV, page 208 ; Galli-Valerio in B. M. J. of 9th August 1902, page 401, and of 27th September 1902, page 956, in L. of 23rd August 1902, and in J. T. M. of 1st September 1902, page 271 ; Rosenfeld in C. B. XXX, page 641, and quoted in H. R. XII, page 941, and in V. J. XXXVI 1-2, pages 326 (also Matzuschita) and 426 (also Galli-Valerio) ; Galli-Valerio in C. B. XXVIII, page 842, and quoted in H. R. XII, page 20 ; Sata in Arch. f. Hyg. XXXII, quoted in H. R. XI, page 1090 ; Kolle and Martini in D. M. W. XXVIII, page 60 ; Schultz C. B. XXIX, page 169, quoted in H. R. XII, page 20, and in J. P. P. G. IV, page 208.
- (6) Kolle and Martini in D. M. W. XXVIII, page 1 ; Dürck, quoted in D. M. W. XXVII, Vereins-Beilage, page 319 ; Fritsche in A. K. G. A. XVIII, page 473 ; Martini, quoted in J. P. P. G. IV, page 215 ; Kolle and Martini in D. M. W. XXVIII, page 60* ; Blackmore in L. of 11th October 1902, page 984 ; Voges in Z. H. XXXIX, page 301 ; Schottelius in H. R. XI, page 105, quoted in V. J. XXXVI 1-2, page 425 ; Farrar reported in B. M. J. of 16th August 1902, page 454, and in L. of 23rd August 1902, page 524.
- (7) Sticker, quoted in D. M. W. XXVIII, Vereins-Beilage, page 60 ; Chaytor White, Official Report to Govt. of U. P. of Agra and Oudh, dated 25th March 1902, noticed in I. G. M. of July 1902, pages 263 and 283.
- (8) Hislop in B. M. J. of 20th September 1902, page 870 ; Bentley in the same, page 872, and in I. M. G. of September 1902, page 237 (These are the full papers. There are references to them in L., J. T. M., I. M. G., and B. M. J.) ; L. Rogers in I. M. G. of October 1902, page 377, and of November 1902, page 424 ; Dodds Price in I. M. G. of October 1902, page 379.

* See Otto in Z. H. XL1, page 409.

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SECTION VII.

GENERAL HISTORY OF VACCINATION.

143. During the year under review the conditions which affected the work of the Vaccination Department so adversely in 1900-01 had for the most part passed away. Scarcity, however, still lingered in Bombay; and except in the Central Provinces there was a great extension of plague in the affected provinces, particularly in Bombay and the Punjab. In Bombay it was considered prudent not to push vaccine operations in the plague-affected areas; but in the Punjab, in view of the repeated recrudescence of the disease, it was resolved not to suffer the infected districts to remain unprotected from small-pox any longer, so in future years, it may be hoped, that vaccination will again progress.

The aggregate number of operations performed in 1901-02 was 8,036,414, which is 162,052 more than in the preceding year, but 88,893 less than in 1899-1900.

Six provinces divide the increase, but in unequal shares. Work progressed most in Bengal and Madras; and in the United Provinces, Assam and Berar the increase as compared with the preceding year was satisfactory; but in Ajmer-Merwara the increase was inconsiderable. Five provinces show a further falling off. Chief among them is Bombay where the decrease is nearly 140,000; then comes Burma with a decrease of nearly 60,000; and then the Punjab (with which for purposes of comparison with last year the figures relating to the new North-West Frontier Province are here included) with a decrease of more than 40,000; then the Central Provinces with 30,000; and, lastly, Coorg where the decrease was upwards of 2,000. The presence of plague and the effect of famine caused the decline in Bombay and the Punjab, and the effects of famine affected work in the Central Provinces. No reasons are given for the falling off in Coorg, nor is the serious decline in the work in Burma fully explained. It may, however, be inferred from the Burma report that the decrease in the reported number of operations performed is mainly due to the prevention of falsification of their returns by the vaccinators.

The number of primary operations performed during the year was 7,358,744, or 123,724 more than in 1900-01, and the number of re-vaccinations was 677,700, or 38,328 more than in the previous year. There was a great falling off in the number of re-vaccinations in Assam, from 20,247 in 1900-01 to 9,412 in 1901-02.

The average degree of success obtained in the country generally was somewhat higher in both primary operations and re-vaccinations than in the preceding year, the percentages being 94.97 and 65.5 in 1901-02, against 94.5 and 64.4 in 1900-01. The highest percentages of success in primary cases were claimed in Ajmer-Merwara, 99.21, and Bengal, 98.01; and the lowest in Burma, 90.11, and Madras, 89.41. The percentages of success in re-vaccination ranged from 83.93 in the Central Provinces, 81.55 in the United Provinces, and 81.09 in Assam, to 51.0 in Burma, and 18.3 in Berar.

Included in the foregoing figures are the 210,277 operations performed at dispensaries. That total is 4,917 in excess of that of 1900-01, and in most provinces, except notably Coorg and Burma, there was a small increase. The

vast majority of the operations, 145,661, were performed in Bengal, and except in Assam, the Central Provinces, Madras, and Burma, dispensary vaccination is either non-existent (Berar and Ajmer) or trifling in amount.

The proportion of the population protected during the year varied between 49·15 and 44·46 per mille in Coorg and Assam, respectively, and 21·49 per mille in Bombay, the average proportion being 31·3, as compared with 31·8 in 1901; the apparent falling off being due to the computation of the ratio for 1901-02 on the higher population figure of the 1901 census.

If we suppose that 40 children were born for every 1,000 of the population, 33·41 per cent. of them were protected by vaccination during the year, against 33·9 per cent. in 1900-01, the percentages varying between 53·88 in Berar, and 19·19 and 12·53 in Burma and Coorg, respectively.

The average number of operations performed by a vaccinator in the year ranged from 2,867 in Berar, to 950 in Bengal and 723 in Ajmer-Merwara.

The average small-pox mortality was ·40 per mille against ·41 in the preceding year. The death-rates ranged in the provinces from 2·48 per thousand in Coorg, where there were 449 deaths, and ·63 in the Central Provinces, where there were 6,081, to ·02 in the United Provinces, where the deaths numbered 981, and ·01 in Ajmer-Merwara, where they numbered only 4.

The aggregate cost of the department was Rs. 11,32,257, or nearly Rs. 20,000 less than in the preceding year; and the cost of each successful case varied between nine annas and four pies in Bombay, and oee anna and two pies in Bengal, the average being two annas and a half, or one pie less than in 1900-01.

144. The methods of carrying on vaccination in the different provinces are not uniform. In Madras, Assam, Berar and Burma calf lymph is used, generally mixed with either lanoline or glycerine. In Bengal fresh and lanolinated calf lymph is used, but the majority of operations are performed with human lymph taken directly from the arm.

In the Punjab, buffalo calf lymph made into a paste with sterilized vaseline is the vaccine in use. In Bombay and the United Provinces glycerinated calf lymph is used to a limited extent, but the vast majority of the operations are done with human lymph taken directly from the arm in Bombay, and preserved on ivory points in the United Provinces. In the Central Provinces human lymph, fresh calf lymph, calf lymph mixed with glycerine and calf lymph mixed with lanoline are all in use.

The length of time that preserved calf lymph will retain its efficiency, and whether lanoline or glycerine is the best preservative are questions regarding which diversity of opinion still exists. So far as the somewhat unsatisfactory data at hand enable one to form an opinion, lanolinated lymph will keep better than glycerinated lymph, but probably much depends upon the lymph used and the conditions of manufacture, while when different lymphs come to be tested the effect of the varying skill of vaccinators must not be left out of account.

Both glycerinated and lanolinated lymph will, however, keep sufficiently long in any season of the year to admit of distribution in any province from a central depôt situated in the province. In more than one of the provincial reports there are complaints regarding the quality of the lymph-supply. This should not be. The encouragement of vaccination creates an obligation to provide vaccine, the use of which not only affords protection against small-pox, but is free from danger and inconvenience.

145. The total number of operations recorded in Bengal was 2,652,826, against 2,346,311 in the previous year, and 2,252,521 in 1899-1900. Primary cases numbered 2,529,778 and re-vaccinations 133,048, the corresponding figures in the previous year being 2,227,942 and 118,369.

It is satisfactory to note that while a larger number of operations were performed, the standard of success rose from 97·8 to 98·0 per cent. in primary work, and from 59·2 to 67·07 per cent. in re-vaccinations.

Striking increases occurred in some districts, notably in Mymensingh which shows a rise of 43,215 cases; in two other districts the work increased by over 30,000 operations each. Four districts only show a fall, Dacca being the chief of these, where the decline was by 11,934 cases; this is however due to a sub-division of the district having been transferred to Faridpur.

It is computed that 32·06 per cent. of the infants available were protected in the province as a whole, while in the towns more than double, or 70 per cent., were successfully vaccinated, compared with 60 per cent. during the previous year. The ratio returned for towns is, however, in the present condition of registration, considered to be of doubtful value.

The results to the credit of the department during the year 1901-02 are satisfactory, especially as the superior staff, owing to other demands, was unable to extend the requisite amount of supervision to the work of vaccinators, who being mainly recruited from an ignorant class exercise but little influence with the people.

The system under which licensed vaccinators do much of the work in Bengal has, it is said, rendered the department unpopular, while it is difficult for the vaccinators to recover their fees. The working of the department is, however, being examined, and the question whether it would not be well to replace the existing licensed vaccinators by a paid agency is engaging special attention. The introduction of well considered measures of reform will no doubt effect improvement in the work done, and the opening of a training school for vaccinators at Cuttack, which has already passed out some trained vaccinators, will help to provide efficient men.

Small-pox prevailed in epidemic form during 1901, the ratio of deaths having been 50 per mille of population against 29 per mille in 1900. To this cause is in some measure due the increased amount of work recorded during the year under report.

The following table shows the results obtained with (1) human lymph and calf lymph, (2) free from admixture and (3) mixed with lanoline :—

	PRIMARY VACCINATION.		RE-VACCINATION.	
	No. of cases.	Percentage of success.	No. of cases.	Percentage of success.
Arm to arm	1,961,650	98·16	63,893	68·83
Calf lymph without admixture	323,884	98·56	35,134	75·74
Lanoline lymph... ..	244,244	96·07	34,021	54·79

These results are an improvement on those recorded in the preceding year.

The inadequacy of the lymph supply, which is reported to be impeding work in many parts of the province, has been again mentioned by the Sanitary Commissioner, who urges the establishment at an early date of the Animal Vaccine Depôt at *Pusa*, and this has been approved by Government. The establishment of another such depôt in Orissa is also recommended.

The Calcutta and Darjeeling Depôts continue to be worked satisfactorily, the lymph supplied from the former having been reported to be of very good quality.

The Nepal Darbar and the Sikkim State received, respectively, 675 and 560 grains of lymph during the year, but no detailed results were reported. For vaccination in Bhutan 50 grains of lanoline paste were supplied.

Inoculation is said to be very prevalent in Orissa and the punishment meted out to offenders being inadequate, it has so far not proved deterrent.

146. The total number of operations in the province was 280,827, as compared with 271,466 in 1900-01, and 272,265 in 1899-1900.

Assam.

Primary cases numbered 271,415, against 251,219 in 1900-01, and re-vaccinations 9,412, against 20,247. While, therefore, primary work increased, re-vaccination declined, but the recorded percentages of success rose in both classes of work, from 96.0 and 80.0 per cent., respectively to 97.48 and 81.09 per cent. The effect of local measures satisfactorily augmented the outturn of work done at dispensaries, and the steady increase in the number of primary operations performed by the tea garden agency was maintained.

In the province the protection afforded to infants is represented by 32.6 per cent. of the births recorded during 1901, compared with 25.4 per cent. protected during the preceding year; while in the 11 towns, where the compulsory vaccination Act continues in force, 80 per cent. of the available number of infants were successfully vaccinated, against 70 per cent. during the previous year. At Nowgong, one of the 11 towns, no less than 94 per cent. of the available children were protected, a result due to Captain McNaught's personal efforts.

The amount and quality of work done at the Animal Vaccine Depôt at Shilong during the year under report was the largest and most satisfactory on record. The total number of tubes loaded with vaccine was 395,317, as compared with 387,557 in the previous year. The quality of the lymph was generally excellent, although it is to be noted that the first supply in the Darrang District proved to be of inferior quality, probably due to the heat of the weather at the time it arrived in the district.

Inoculation is unfortunately still carried on, although it appears to be widely practised in only the Surma Valley districts. Several outbreaks of small-pox in the Cachar and Sylhet districts were distinctly traceable to inoculation. It is significant of the attitude of the people that in one sub-division the inhabitants petitioned the Chief Commissioner to stop vaccination and authorize inoculation. In the opinion of the local Administration the province is not yet ready for the suppression of inoculation by law, and other than coercive measures must be depended upon to secure a discontinuance of the evil practice in Assam.

147. The steady progress which has attended vaccination in the United Provinces of Agra and Oudh. during the past five years was maintained, with the result that a total of 1,579,795 operations were

performed by the special staff during the year, against 1,549,233 in 1900-01, and 1,511,436 in 1899-1900. Including 400 operations at dispensaries against 176 last year, the total for the province was 1,580,195. Of this number, 1,490,996 were primary cases and 89,199 re-vaccinations, the ratios of success being 96.02 and 81.55, respectively, as compared with 95.2 and 82.5 in the preceding year. It is satisfactory to note that both the quantity and quality of the work shows an improvement. The hill districts are specially well vaccinated, the people being anxious to be vaccinated and re-vaccinated three or four times.

The number of successful primary vaccinations in municipalities fell from 113,275 in 1900-01 to 110,455 in 1901-02, the decline being attributed to a smaller number of births during the latter year. Of 88,366 children under one year computed to be available in the towns, 85,640 were successfully vaccinated.

Bovine lymph depôts were, as usual, maintained at Lucknow, Bahraich and Allahabad. The outturn of work has not been stated, but the quality of the lymph was apparently good. Pure calf lymph and lanolinated calf lymph were both used, but not to any large extent.

Orders have been issued for the construction of the new bovine lymph Depôt at Patwa Dangar (six miles from Naini Tal), which when in working order may be expected to provide a good lymph supply for the entire province.

148. Excepting the year 1899-1900, the decline in the number of operations in the Punjab has continued year by year, since 1896-97. During 1901-02, the primary operations numbered 511,121 and re-vaccinations 157,023. These figures exclude those relating to the districts transferred to the North-West Frontier Province since November 1901, and are therefore not comparable with the figures relating to the Punjab published in previous reports.

The percentages of success were 93.92 in primary vaccinations, and 58.47 in re-vaccinations, both lower rates than were recorded in the previous year.

The causes of the continued decrease in the amount of work done were practically the same as in the year 1900-01,—a low birth-rate and sickness consequent on scarcity, which also affected the supply of buffalo-calves; the continuance and spread of plague in the province necessitated the total suspension of vaccination in certain badly affected tracts, while the employment of the Deputy Sanitary Commissioner and vaccinators on plague duty interfered with the conduct of vaccination work.

The local Government has decided that the existence of plague ought not to lead to the infected areas being left unprotected against small-pox and efforts are to be made to carry on vaccination in those areas irrespective of the presence of plague.

The improvement of the prospects of the subordinate staff of the department by the introduction of a reorganization scheme which took effect from the 1st September 1901, should result in better work and the recruitment of a better class of men in future.

No addition was made to the list of towns in which the Compulsory Vaccination Act is in force, and the administration of the law in many of them leaves room for criticism. But the improvement of vaccination in towns is engaging attention, and efforts are being made to persuade municipal committees to introduce the Act, and also to encourage the vaccination of children where the Act is not applied.

No details of work in the Native States of the province have been furnished, but it is stated that in Patiala and Kapurthala a decrease has occurred in consequence of the prevalence of plague.

Particulars are wanting with respect to the work of the provincial lymph depot. Vaccination with vaseline lymph proved less successful than with fresh animal lymph, but this is attributed to the fact that the former was used in the warmer months when results are always poorer.

Circumstances compelled the postponement of trials with glycerine lymph, and also the conduct of experiments as to the protective power of vaseline vaccine paste. The reappointment of a whole-time Deputy Sanitary Commissioner, and the provision of the necessary apparatus, will now admit of definite action being taken to carry out experiments.

149. This province appears in this report for the first time, the figures for the districts which constitute it having hitherto been included in the returns for the Punjab. As in the Punjab, there has been a decline in the work of the Vaccination Department, the total operations being 70,993 as compared with 78,479 in 1900-01 and 81,583 in 1899-1900. The decline has occurred in the primary work only, re-vaccinations having increased during 1901-02 to nearly double the number performed in either of the two previous years. The details of the work done during 1901-02 shew 63,321 primary cases and 7,672 re-vaccinations, against 73,614 and 4,865, respectively, in 1900-01: the percentages of success being 91·03 and 75·18 in 1901-02, and 92·75 and 66·87 in 1900-01.

It is stated that 2,174 vaccinations were performed in the Sherrani country, but whether these are excluded from the total returned for the province is not apparent.

It is of interest to note that the practice of vaccination is beginning to be appreciated by the tribesmen across the border, and the Bonerwals bring their children into British territory to be vaccinated.

150. The total number of operations performed by all agencies during the year 1901-02 amounted to 425,392, a decrease of 30,005 on the total recorded during the preceding year. Of the total, 350,484 were primary cases and 74,908 re-vaccinations, while in the year 1900-01 the corresponding figures were 385,493 and 69,904, respectively.

The foregoing figures include the work of the Feudatory State Vaccination Establishment and all the dispensary operations in the province. Excluding the latter, there were 269,270 primary operations in British districts, and 68,738 in the Feudatory States during 1901-02, the corresponding figures for 1900-01 having been 303,559 and 67,004, respectively. The percentage of success declined, in British districts from 97·13 to 96·87, and in the States from 96·23 to 95·93.

The re-vaccination work, however, exhibited an improvement, the number of cases in British territory rising from 52,054 to 53,409, but the percentage of success declined slightly from 84·94 to 83·56. In the States re-vaccinations increased from 14,979 to 18,818, and the ratio of success from 84·02 to 86·34 per cent.

The cause of the decrease in primary work in the British districts is attributed to a low birth-rate, the poor health of the people and the closure of famine camps. In the States the increased outturn of work was due to the extension of vaccination to certain villages of the Patna State, where it had never before been

attempted, and also to the prevalence of small-pox in parts of the Kalahandi State.

In dispensaries in British territory the number of primary vaccinations fell from 12,985 to 10,665 and re-vaccinations from 2,479 to 2,322. The percentage of success in the former, however, rose in the year under report from 92'34 to 94'62, and in the latter from 60'31 to 74'29. The causes of the reduced outturn of work are the same as noted above for the province. Owing to the absence of returns of dispensary vaccination from no less than seven Feudatory States' institutions no valid comparison of the work of the year 1901-02 with that of 1900-01 is possible.

The Vaccination Act continued in force in 35 out of a total 45 municipalities, and in those 73'40 per cent. of the available children under one year of age were successfully vaccinated. The ratios vary considerably in the several towns.

As in 1900-01 nearly two-thirds of the operations were performed with animal lymph and the percentage of success, 95'63, was identical with that returned the previous year. With glycerinated lymph the steady improvement noted last year was maintained, the percentage of success being 90'96 against 86'97 in 1900-01; while with lanolinated lymph the percentage of success declined from 99'51 to 88'81. The ratios of success obtained by the use of human (arm-to-arm) lymph were practically the same in both years, 95'11 and 94'66, in 1900-01 and 1901-02, respectively.

151. Some of the ground lost owing to famine conditions during 1900-01 was regained during the year 1901-02, when a total of
Berar.
 120,418 operations were performed, or an increase of 12,630 over the total of the preceding year. There was improvement in both primary vaccination and re-vaccination, the numbers having risen from 74,707 and 33,081 in 1900-01, to 82,296 and 38,122, respectively, in 1901-02. The percentage of success in primary operations was 96'6, which is the same as the ratio returned last year, and in re-vaccinations 18'3, against 20'9.

In the province 92'8 per cent. of the available infants were vaccinated; and in ten municipal towns 4,620 out of 4,922 infants were successfully operated upon.

Lanolinated lymph, manufactured at Amraoti, was used exclusively, and, while quite as efficacious as the pure calf lymph used in the previous year, was more economical.

152. The total number of operations performed in the Presidency during
Madras.
 1901-02 inclusive of that at dispensaries, was 1,325,106 against 1,257,883 during 1900-01; the department thus maintaining the increase recorded last year. There was an increase in both primary operations and re-vaccinations, due partly to the extension of vaccination in Local Fund areas, and partly to the recovery from the falling-off brought about by the plague scare.

Still, in nine districts there was a decrease, in explanation of which incompleteness of staff is urged as the main reason, while insufficiency or inertness of lymph is also advanced in some cases. The remedy for the former lies with local boards, while as to the latter the establishment of the new vaccine depot which is being built, ought to remove all cause of complaint.

The ratio of success in the total work is practically identical with that of the previous year, *viz.*, 89·4 and 69·0 per cent. during 1901-02, and 89·2 and 69·7 during 1900-01 in primary vaccination and re-vaccination, respectively.

Notwithstanding the comparatively satisfactory state of affairs which these figures exhibit, it has been shown that the increased work of recent years has not kept pace with the growth in the population, particularly in respect of the infant population. In municipalities an average of 66 per cent. of the available children were afforded protection, although in 47 towns, against 42 last year, the ratio was 75 per cent. But the number of children said to be available in towns is believed to be much fewer than was actually the case, and the effort made to secure better registration and more work on the part of vaccinators will, it is to be hoped, tend to improvement.

153. Notwithstanding the prevalence of small-pox in 1901-02, the number of operations declined from 12,049 in 1900-01, to 9,772, of which 8,416 were primary cases. The cause of the decrease has not been stated. In the dispensaries, 320 persons were vaccinated against 669 in 1900-01.

Coorg.

The percentages of success attained in 1900-01, 93·2 and 74·7 in primary operations and re-vaccinations, respectively, were practically maintained in 1901-02, when the percentages were 93·5 and 74·2.

The vaccination of children above six months of age is compulsory in five municipal areas in Coorg, and from the results returned it is considered that the provisions of the law were adequately enforced.

154. The total number of operations in the Presidency was 521,706 and the decrease as compared with the returns of the preceding year amounted to 139,333 cases. The decline occurred in both primary operations and re-vaccinations, and is stated to be mainly due to a low birth rate consequent on the incidence of both famine and plague. The quality of the work done however shows an improvement as the percentage of success in primary cases was 91·9 against 90·8 in 1900-01, and in re-vaccinations 59·9 against 56·9. The percentage of cases in which the results were unknown fell to 6·71 per cent. compared with 8·12 per cent. in the previous year.

Bombay.

The work in Native States fell off considerably, from 133,720 primary cases in 1900-01 to 51,356 in 1901-02, and from 9,756 re-vaccinations to 8,404. The success in the former was 95·2 per cent. as compared with 92·6 in 1900-01, but in re-vaccinations it was slightly less—69·5 against 70·0.

That more work was done in the dispensaries in 1901-02 than in the preceding year was chiefly due to an increase at Bushire.

The quality of the lymph supply is reported to have been good, human and bovine lymph were both used. The ratios of success attending the use of former ranged in the several registration districts from 93·37 to 86·8 per cent. With the latter the ratios ranged from 89·8 to 70·88 per cent.

Glycerinated lymph was used in the Presidency circle only, with a success of 73·4 per cent., and lanoline paste in the Southern Registration districts only, the rate of success being 79·4 per cent.

155. The number of operations performed in the province was 360,224 which represents a decrease of 59,687 cases as compared with the preceding year. Of this total, 333,657 were primary cases and 26,567 re-vaccinations, as compared with 392,305 and 27,606, respectively, during 1900-01.

Barma.

The percentage of successful primary operations was very slightly lower, *vis.*, 90·1 against 91·2 in 1900-01, but the success in re-vaccination was greater, 51·0 as compared with 49·9. No reasons for the reduced outturn of work have been advanced, but it may be gathered that more effective supervision of the operators and closer examination of the returns have prevented falsification of the latter which even now the local Government declares to be unworthy of trust.

Inoculation is said to be freely carried on throughout the province, but the best way to induce the Burman to accept vaccination is to make it effective. The unfortunate occurrence of a conviction by a Township Officer of an inoculator being thrown out on appeal to the Chief Court has had an undeniably hampering effect on the department. The average small-pox mortality in Burma during the quinquennial period ending 1900 was 7·74 per 1,000 of the population, as against 4·02 in the quinquennium ending with 1895, so that the need of fostering the work of vaccination is abundantly evident.

There were 20,347 children available for vaccination in towns; of these 17,757 were successfully vaccinated—probably a marked improvement on the real results of the previous year.

Calf lymph is used generally throughout Burma; resort being made to arm-to-arm vaccination when the supply of animal vaccine fails. Of the three lymph depôts, that at Taunggyi was closed in June 1901 owing to a failure in the supply of calves, and the establishment transferred to Rangoon. In Rangoon, also, the supply of calves failed owing to the prevalence of cattle disease and a new depôt was opened at Meiktila in February 1902. Work, is being carried on there in a hired house, but the construction of a suitable building will soon be begun.

Besides the locally made vaccine, supplies of vaccine were obtained from Bangalore which generally proved more active than that manufactured locally.

156. There has been little improvement in this small British tract in Rajputana in the vaccination work recorded during 1901-02 as compared with the year 1900-01, when there was a great falling away from the results of the previous year. The number of operations performed during the year under report was 10,841, of which 10,831 were primary operations, and only 10 re-vaccinations, the corresponding figures during the preceding year being 10,660 and 21, respectively.

The success in primary operations was the same in both years, *vis.*, 99·2 per cent.; in re-vaccinations it rose from 61·9 to 80·0 per cent.

157. The usual statistics relating to the vaccination operations conducted among European and Native troops will be found in Statement III in the Appendices to this section.

Vaccination among troops.

The history of the United States of America is a story of a people who have grown from a small colony of English settlers to a great nation of free men and women. The story begins in 1492 when Christopher Columbus discovered the continent. The first permanent English settlement was founded in 1607 at Jamestown, Virginia. The Pilgrims arrived in 1620 on the Mayflower and established the Plymouth colony. The American Revolution began in 1775 and ended in 1783 with the signing of the Treaty of Paris. The Constitution was adopted in 1787 and the Bill of Rights in 1791. The United States has since grown to become one of the most powerful nations in the world.

The American Revolution was a struggle for independence from British rule. The colonists were angry at the British for imposing taxes without their consent. The Boston Tea Party in 1773 was a protest against the Tea Act. The British responded with the Intolerable Acts, which led to the outbreak of war. The Continental Congress fled to Lancaster and then to York, Pennsylvania, before moving to Lancaster and then to Lancaster, Pennsylvania. The Declaration of Independence was signed on September 17, 1776. The war ended with the British evacuation of New York City and the signing of the Treaty of Paris in 1783.

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SECTION VIII.

SANITARY WORKS.

158. Excluding Calcutta, there were 155 municipalities in Bengal, an increase of two, namely Budge Budge and Panihati, as compared with the preceding year.

Bengal.

The total income of the municipalities during the financial year ending on the 31st March 1901, including an opening balance of Rs. 6,01,431, was Rs. 49,77,650, or Rs. 2,93,061 more than in the previous year, the increase being due to larger receipts from loans, grants from provincial and local funds and contributions from private individuals.

The total municipal expenditure on sanitary purposes was 44.48 per cent. of the income, or Rs. 22,03,678, including Rs. 2,45,993 on water-supply, Rs. 2,01,557 on drainage and Rs. 11,62,800 on conservancy; the expenditure under the last two headings showing increases, as compared with the previous year, of sums of Rs. 70,265 and Rs. 82,024, respectively. On original sanitary works, as opposed to maintenance, the total sum spent was Rs. 4,20,588, only 13 municipalities devoting over 10 per cent. of their incomes to this purpose, while a large number spent less than 1 per cent.

Among the more important works completed or in progress were the following.

The Manicktolla municipality caused pipes to be laid from the Calcutta main at Sealdah along the Beliaghatta road for the extension of the filtered water-supply. The Krishnagar Municipality caused the silted up Anjona channel to be re-excavated and bridged, at a cost of Rs. 14,810, to secure the efficient drainage of the town. At Darjeeling the fencing in of the water-supply catchment area at Senchal was completed. The Patna Municipality carried out the scheme for flushing drains in the Pirbahar Mohulla at a cost of Rs. 42,000. At Gaya a tramway line for the removal of filth was constructed and maintained by the municipality at a cost of Rs. 12,579.

In rural areas the total cost of sanitary works completed or in progress was Rs. 6,05,194, against Rs. 4,96,957 in the preceding year.

Only one meeting of the Sanitary Board was held during the year, but the usual consultative work was carried on by the circulation of files among the members.

Sanitary Board.

The principal subject of discussion at the meeting was the septic tank system of sewage disposal and its adoption by municipalities. From the report it would appear that action is being deferred pending the receipt of information regarding the fate of pathogenic germs in their passage through the septic tank.

The following are among the more important estimates prepared and considered by the Board :—

1. A detailed plan and estimate for an additional filter-bed for the Burdwan water-works.
2. A combined scheme for water-supply to all the riparian municipalities on both banks of the River Hooghly contemplating a daily delivery of eight gallons of filtered water a head for a population of 285,000, at a capital cost of forty lakhs of rupees, and an annual cost of Rs. 60,000 was prepared. This being considered too expensive,

another scheme was drawn up under the orders of Government for the supply of unfiltered water to 17 of the towns at a cost of thirty-two and a half lakhs of rupees. Both schemes are now before Government.

3. A scheme for the supply of unfiltered water to wards I and II of the Narayangunge Municipality at a cost of Rs. 1,79,000.

The opinion of the Board was requested on schemes for the drainage of Titaghar, English Bazar, Dinajpur, Monghyr, Baranagore and Manicktolla.

The Manicktolla drainage project includes the complete surface drainage of the town at a cost of Rs. 4,77,000, and presents considerable difficulties as the main outfalls discharge into tidal water.

The Board also advised regarding schemes for the supply of filtered water to the Garden Reach Municipality ; for the extension of the Howrah water-supply ; and for remodelling the Darjeeling water-supply, and dealt with a large number of miscellaneous references.

159. The total income of the municipalities, towns, stations and unions in Assam, excluding four small towns in the Surma Valley which have no separate income, was Rs. 2,24,132. The aggregate of the sums devoted to sanitation was Rs. 1,23,929, or 55·29 per cent. of the total income, as compared with 44·69 per cent. in the preceding year.

On conservancy Rs. 72,951 was spent, or considerably more than half the total ; on water-supplies Rs. 22,198 ; on drainage Rs. 10,955, while the balance was spent on vaccination (Rs. 1,248), markets and slaughter-houses (Rs. 8,619) and Rs. 7,036 on various sanitary improvements.

The largest share of municipal income devoted to sanitation was 89·77 per cent. at Dhubri. The municipalities of Gauhati and Tezpur and the Habiganj union spent upwards of 65 per cent. of their incomes, while all the other bodies spent upwards of one-third, except municipality of Goalpara and the Golaghat union, which is at the bottom of the list with 24·68 per cent.

No work of capital importance was undertaken during the year, and most of the expenditure on new work was in connection with improvements to the water-supplies.

Although papers were circulated to the members whenever this was thought necessary, the Board held only one formal meeting during the year.

160. No details regarding municipal or district board income, or of the expenditure on sanitation, are furnished in the provincial report.

United Provinces of Agra and Oudh.

It does not appear that any new project of importance was undertaken during the year, although something was done towards the improvement of existing works and schemes.

At Agra it was found that there was danger of pollution of the water-supply by a village situated about a mile above the intake, and enquiries were in progress to ascertain if it was possible by the construction of a spur running into the bed of the river to effect a slight deviation of the current so as to avoid the village. Owing to the increase in the demand for water, an extra settling tank was constructed. At Cawnpore the drainage and sewerage scheme is still under contemplation ; but the construction of main and low-level intercepting sewers has been commenced. A city improvement scheme providing for widening the worst streets, improving thoroughfares and constructing new streets is under

consideration. At Lucknow it is hoped that the new sewerage and drainage scheme, which is under consideration, will soon be begun. At Farrukhabad a drainage scheme to cost Rs. 75,000 was being carried out. At Aligarh the construction of outfall drains for sullage was in progress. For Dehra Dun a detailed scheme for the improvement of surface drainage was prepared.

The great water-supply works continue to work well. The estimated consumption during the year in the different towns in gallons per head was as follows:—Benares 12·21; Lucknow 4·5; Cawnpore 10·9; Agra 8·3; Allahabad 9·6; Meerut 4; Dehra 7·5; Mussoorie 6·39 and Naini Tal 11·87. As compared with 1900, all show an increase except Benares and Meerut. In Benares the decrease is small; but in Meerut the consumption of water has fallen from 8 to 4 gallons a head. The reason for this is not clear, but the falling off is in the consumption outside the cantonment, within which the increase was nearly 34 per cent.

The Sanitary Board held five meetings during the year. They considered projects and estimates amounting to Rs. 7,24,630, of which the more important were the following.

Sanitary Board.
An estimate amounting to Rs. 34,655 for the purchase and erection of four new boilers and altering the boiler-house at the Agra water-works was recommended for sanction. An estimate (Rs. 2,405) for extending the Mussoorie water-supply was approved. Plans and estimates (Rs. 75,000) for improving the drainage of Farrukhabad, plans and estimates (Rs. 25,111) for improving the Ganda Nala, Cawnpore, and plans and estimates (Rs. 34,342) for the drainage of Muzaffarnagar were approved.

The Cawnpore drainage and sewerage scheme was discussed, and the estimates for the main and low-level sewers, amounting to Rs. 4,88,107, were recommended for sanction.

The reports of the working of the village Sanitation Act during the year were considered, and the Board noted with satisfaction that the attention paid to improving the sources of water-supply and to general sanitation in the villages to which the Act has been applied was well sustained.

161. The aggregate income of the municipal towns in the Punjab in 1901, including an opening balance of Rs. 10,96,939, was Rs. 58,09,649, and of this sum rather more than 20 per cent. was spent on sanitation; on water-supplies Rs. 2,12,335; on drainage and sewerage Rs. 73,757; on conservancy Rs. 6,67,426; on the construction of latrines Rs. 12,006 and on paving and widening streets Rs. 42,264.

The amount derived from the sale of manure in the municipal towns which had been declining in previous years, rose from Rs. 1,42,809 in 1899 to Rs. 1,62,173 in 1900, but owing to the transfer of certain towns to the North-West Frontier Province there is an apparent decline in 1901 to Rs. 1,50,471, including Rs. 40,036 obtained in Amritsar, Rs. 14,139 in Delhi, and Rs. 11,327 in Lahore.

The more important works completed were the following.

The extension of the Delhi water-works, comprising an inlet well and pumping station on the bank of the Jumna, with two settling tanks and six filter-beds.

The Abbottabad drainage scheme was finished in June, and has worked satisfactorily.

The Fazilka drainage scheme, although completed, was not taken over by the Municipal Committee, because the working was no satisfactory. Proposals for the alteration of the drain at a cost of Rs. 4,000 were submitted to Government.

At Simla, the Saog reservoir and the lower gravitation line were finished, and the extension of the old gravitation line was completed. The sewerage system was extended and an installation for the experimental treatment of sewage was set up.

The following schemes were under consideration or were sanctioned.

The estimate for the Amritsar water-supply scheme was sanctioned by the Government of India, and work, it was hoped, would be begun when a more suitable site for the supply wells had been approved.

The water-supply scheme for Lyallpur town and civil station and the drainage scheme for the town were sanctioned by the Local Government.

A project for the better drainage of the Simla bazar was prepared.

The extension of the Kalka water-supply and drainage scheme for Rawalpindi, Multan and Ferozepur were considered.

The Sanitary Board met five times during the year, and the following were the principal subjects considered by them.

Sanitary Board.

- (1) Rules for the guidance of the Board, of the Sanitary Engineer, and of local bodies were drafted, and submitted to Government for approval.
- (2) A drainage scheme for the town of Chunian was approved, and sent to the Commissioner of Lahore for action.
- (3) The Umballa extramural drainage project was approved, and sent to the Commissioner of Delhi for action.
- (4) A drainage scheme for Chiniot Road town was approved.
- (5) & (6) The Lyallpur water-supply and drainage schemes were modified and approved.
- (7) The Gujarat extramural drainage scheme, prepared by the Sanitary Engineer, was approved, and referred to the local authorities, in order to ascertain if they were prepared to meet the cost.

162. The income of the municipal towns amounted to Rs. 6,48,513, including an opening balance of Rs. 1,64,353, and Rs. 17,214 derived from the sale of manure and street sweepings.

North-West Frontier Province,

The following sums, aggregating Rs. 1,09,194, were spent on sanitation; on conservancy Rs. 61,106; on drainage and sewerage Rs. 15,922; on water-supply Rs. 28,989; and on the construction and repair of latrines Rs. 3,177.

No new work of capital importance was undertaken, although improvements in the drainage of Abbottabad and Peshawar were carried out. At Abbottabad arrangements are being made to obtain a supply of water from the Kakul wells as the existing supply is insufficient. The extension of the water-supply of Kohat and a scheme for the drainage of Dera Ismail Khan were under consideration.

163. The total income of the district head-quarters' municipalities for the year 1900-01, excluding opening balances and certain

Central Provinces,

receipts under special grants, etc., was Rs. 10,50,928 or Rs. 19,398 less than in the preceding year. Of the total income 33.29 per cent. was spent on original and recurring sanitary works, against 28.18 per cent. of the income in 1899-1900.

The expenditure on new works was very small, both in the towns and in the districts, on account of the heavy expenses that had to be incurred on account of the famine. Considerable improvements were, however, effected in the drainage of some of the larger towns; the storage capacity of the Ambajheri reservoir at

Nagpur was increased, and a new filter-bed was constructed near the river pumping-station of the Fraser water-works at Wardha.

The Sanitary Board met four times during the year in the districts of Jubbulpore, Narsinghpur, Hoshangabad and Nimar, and a good deal of work was carried out under their direction, chiefly the construction and repair of wells and the clearing of village sites.

164. The estimated income of the twelve municipal towns in Berar in 1901 was Rs. 2,63,733, or Rs. 21,542 less than in 1900. Of the total, 36 per cent., or Rs. 96,581 were spent on sanitation, as compared with Rs. 1,27,244 in the preceding year.

The sums spent on sanitary works by district boards amounted to Rs. 77,133, or Rs. 30,768 less than in 1900, the decrease being mainly under the heading water-supply in the districts of Amraoti and Akola.

The Sanitary Board met once at each district head-quarters, the matter under consideration being the amount of practical effect given by local bodies to the suggestions of the Sanitary Commissioner recorded in previous years in his survey notes on towns and villages.

165. No details regarding income or expenditure are furnished in the provincial report. The construction of the waterworks' extension and protective works at Trichinopoly, which were commenced in 1900, were still in progress during 1901, the extension to Worriur, one of the suburbs, being the only work of capital importance completed in the Presidency during the year. The Vizagapatam and Coconada water-works, begun in 1900, were also in course of construction; and a scheme for the water-supply of Ootacamund from the Tiger Hill reservoir was being carried out.

District medical and sanitary officers inspected 424 towns and villages, and forwarded copies of their reports to the Sanitary Commissioner and to the local bodies concerned. When the expenditure required on the alterations advised is trivial, it appears that action is generally taken, and in this way valuable improvements in respect of village water-supplies, conservancy and the sanitation of schools have been effected; but the Sanitary Commissioner recommends that a definite percentage of the available funds should be set aside for expenditure on sanitation.

Progress in sewage farming, sewage filtration and the employment of town sweepings and night-soil for agricultural purposes continues to be made; and Government sanctioned a series of experiments on the use of sewage filtrates as fertilisers.

During the year the Board scrutinized the plans and estimates of 85 sanitary works, of which 38 were for municipalities, 43 for local fund boards, three for the Collector of Madura and one for the Collector of Salem, the aggregate estimated cost of the projects being Rs. 14,40,745.

The following were among the projects sanctioned by Government on the recommendation of the Board :—

- (1) The construction of the Tiger Hill reservoir in connection with the Ootacamund water-supply.
- (2) Improvements in the Ootacamund market (Rs. 20,050).

- (3) Closing the wells at Calicut within fifty yards of the Kannanparamba burial ground.

The following are among the schemes examined and laid before Government :—

- (1) The Erode water-supply, Cauvery scheme, (Rs. 1,03,000).
- (2) Amended water-supply scheme for Kumbakonam (Rs. 4,05,120).
- (3) The Ongole water-supply (Rs. 1,20,000).
- (4) Sinking artesian wells at Ellore (Rs. 21,900).
- (5) Augmenting the water-supply of Adoni (Rs. 16,100).

Proposals for many more schemes were received and considered by the Board, but few of them were in a sufficiently advanced state to admit of estimates being prepared.

166. Particulars regarding the revenue and expenditure on sanitation in the towns and districts of Coorg are not furnished in the report ; but beyond the construction of a low-level cistern in connection with the water-works at Mercara and improvement to the surface drainage of the town, no expenditure on sanitation calling for special remark was incurred.

Coorg.

The Sanitary Board met twice during the year, but no business of importance was transacted by them.

Sanitary Board.

167. Excluding the Presidency town, there were 165 municipalities in Bombay ; and their aggregate income in 1900-01, including opening balances, was Rs. 71,98,403. The amount spent on conservancy, drainage and water-supply was Rs. 14,27,509, or about 19·83 per cent. of the income. The total income of the 23 district and 207 taluka local boards was Rs. 40,84,873, and the expenditure on water supply and drainage was Rs. 1,73,488, or about 4·24 per cent. of the income.

Bombay.

It is explained that the presence of plague and famine deterred local bodies from initiating any sanitary scheme of importance.

The number of meetings of the Board is not reported, but the following are the principal matters which occupied their attention during the year.

Sanitary Board.

Kaira.—A project was prepared by the Sanitary Engineer for the supply of water from a well situated about a mile from the town. The estimated cost is Rs. 98,301 for the supply and distribution of 100,000 gallons a day.

Mehmedabad.—A somewhat similar water-supply project to cost Rs. 85,066 was prepared by the Sanitary Engineer.

Poona.—The drainage and water-supply scheme which was estimated to cost 44 lakhs of rupees was rejected on account of the excessive cost, and a modified partial scheme for drainage to cost Rs. 10,77,100 was prepared, and was being considered by the municipality.

Plans and estimates amounting to Rs. 45,267 for an experimental sewage farm at Manjri were prepared. Fifteen acres of land were acquired and fenced in, and a septic tank and bacteria beds were constructed.

Ahmednagar.—The Sanitary Engineer checked the plans and estimates amounting to Rs. 2,29,654 for the Nagabhai and Kapurwadi water-supply scheme for the city, and they were sanctioned by Government.

168. The addition in 1901 of Allanmyo to the municipal towns of Burma raised their number to 42. The aggregate income of the year, including opening balances amounting to

Burma.

Rs. 18,24,019, was Rs. 66,03,537, or nearly twenty lakhs of rupees more than in the preceding year.

The proportion of income devoted to sanitation in 1900 was 55 per cent., and this was reduced in 1901 to 35 per cent., including 13 per cent. on conservancy, 9 per cent. on water-supply, and 6 per cent. on drainage.

It is stated that a number of municipalities have important schemes on hand which they are unable to carry out owing to want of funds, and that the question of rendering assistance from provincial revenues is receiving the attention of the local Government.

At Rangoon the scheme for constructing a lake reservoir at Thamaing had to be given up owing to the great expense involved in acquiring the necessary land. The Hlawga project, for which a survey was made and an estimate amounting to 39 lakhs was prepared in 1893-94, was brought forward and sanctioned. The demarcation of the land for the reservoir, which is to hold 13,950 millions of gallons, was begun in December.

At Moulmein the cost of the scheme which provides for an impounding reservoir on the Taungwaing hills, about five miles south-east of the town, was revised and work was begun in December. The scheme provides for a reservoir to hold 648 millions gallons, at a height of 45 feet above the town, throughout which the water will be carried in pipes.

At Akyab the preliminary scheme was revised at the request of the municipality, and a partial supply preliminary scheme was submitted for approval.

At Myingyan two complete gravitation schemes were prepared. The first is for the construction of an impounding reservoir to store 464 million gallons, 121 feet above the general level of the town, at Chezi, six miles to the south-east of the town. The second is for a reservoir to hold 486 million gallons, 100 feet above the level of the town, at Kyaukyan, two miles to the east of the town. The adoption of the first scheme has been recommended.

At Minbu a project for water-supply from a well in the bed of the Sabwet *chaung*, about two miles from the town, whence the water will be pumped to a distributing reservoir on a hill half-way to the town, has been proposed.

Well schemes were also proposed for Yamethin and Letpadan.

Sanitary Board.

No particulars of the Board's proceedings are given in the provincial report.

169. The net outlay in India on military works in 1901-02 was Rs. 1,23,41,880 against Rs. 90,94,940 in the preceding year. Details

Military Works.

regarding new works and improvements in cantonments will be found in the statement appended to tables V and XXX at the end of the volume.

Faint, illegible text, likely bleed-through from the reverse side of the page. The text is arranged in several paragraphs, but the characters are too light and blurry to be transcribed accurately. Some words like "The", "and", "of", and "is" are barely discernible.

SECTION IX.

GENERAL REMARKS.

170. In view of the stringent measures of quarantine imposed by the Turkish Government, and the inconvenience likely to be experienced by Indian pilgrims in Arabia, the Government of India warned intending pilgrims that they would be well advised to defer their visit to the Hejaz. Arrangements were, however, made at Karachi and Chittagong for the embarkation of pilgrims from areas uninfected by plague; but persons permanently or temporarily resident in any of the infected places were forbidden to embark. At Karachi and Chittagong, observation camps were established where the pilgrims were detained and their clothing and other effects thoroughly disinfected before embarkation. At these observation camps alone could tickets for the voyage be purchased.

Red Sea Pilgrim traffic.

Four vessels left Chittagong carrying 2,210 pilgrims. Among them some cases of small-pox were detected at Aden, where they were landed and isolated; and the vessels, after disinfection, were allowed to go on to Cameran. At Cameran itself five cases of small-pox developed, but the precautions which were taken prevented the spread of the disease. Still, in one of the ships from India several cases of small-pox were found on arrival at Jeddah, but the disease soon disappeared.

At Karachi plague re-appeared early in 1901, so that only two vessels carrying 669 pilgrims left that port during the season.

Indian pilgrims to the number of 568 arrived at Jeddah from Suakin, Suez, Aden and other ports, and about 50 overland through Persia and Arabia.

Except for the occurrence of small-pox the health of the pilgrims from India was good.

At Cameran 18,315 pilgrims of various nationalities underwent quarantine; ten days in the cases of pilgrims from India, the Persian Gulf and the Arabian Coast, and five days in the cases of pilgrims from Java and the Straits Settlements. The health of the pilgrims at Cameran is stated to have been excellent, and only 12 died, including five Bengalis, all of whom were old people. The scheme for the reconstruction of the camps at Cameran does not appear to have been efficiently carried out, and it is stated that, although much money has been spent, very little has been accomplished. The hospitals in the camps are reported to be very imperfect.

The health of the pilgrims in the Hejaz was very good, and as neither cholera nor plague was reported to be present, the quarantine restrictions imposed upon pilgrims returning to Egypt were very slight.

During 1901 the number of pilgrims who landed in Bombay was 1,290. They were conveyed in many vessels, the largest numbers in one ship being 437 on the S.S. *Hosseinee* and 297 on S.S. *Assyria*. On three of the vessels bringing returning pilgrims to Bombay, single cases of small-pox occurred; one case was landed at Aden, another at Karachi and the third at Bombay. Disinfection was carried out at both Aden and Karachi. The baggage of all the 1,290 pilgrims who landed at Bombay was thoroughly disinfected; such pilgrims as were returning upcountry were not allowed to enter the town, but were sent straight from the disinfecting sheds to the railway station and thence by train, at Government expense, to their homes.

Two steamers, the *Akbar* and the *Mahammadi*, arrived at Diamond Harbour on the 7th and 10th of May respectively. The *Akbar* had on board 434 pilgrims, but there had been sixteen deaths during the voyage, and three sick had to be admitted to hospital on arrival. The *Mahammadi* had on board 402 pilgrims, all of whom were in good health, but there had been twenty deaths on the voyage. The diseases from which the pilgrims died on the ships were, for the most part, such as are incidental to old age and poverty, and did not include any of the infectious diseases.

It appears that many Indian pilgrims proceed to the Hejaz insufficiently provided with money, and when the time comes for their return to India they have to depend upon charity not only for their return passage but for money to purchase food for them while they are waiting for a steamer. In this connection the British Vice-Consul writes.

"The Indians are still under the impression that a sum of three hundred rupees be quite sufficient to carry a pilgrim from India to the Hejaz and back, but they are quite mistaken. The old times have changed when everything used to be cheap * * * * and the journey costs now twice the money which used to be sufficient formerly. According to my estimate an Indian pilgrim ought to provide himself with Rs. 500 at least before leaving for the Hejaz."

He also advises Indian pilgrims to deposit about Rs. 80 at the British Vice-Consulate on their arrival at Jeddah to cover the cost of the return journey.

* * * * *

171. Important contributions to our knowledge of malaria have resulted from the labours of Drs. Stephens and Christophers, missionaries sent out by the Royal Society, and of Captain S. P. James, I. M. S., who was deputed by the Government of India to assist them. After visiting various places in India the Commissioners selected the cantonment of Mian Mir for a series of test experiments. These experiments were begun by Drs. Stephens and Christophers, and on their departure from India were completed by Captain James.

A malarial survey of the cantonment of Mian Mir had been made in the latter part of 1901, when it was found that the reputation of Mian Mir as one of the most malarious cantonments in India was thoroughly well deserved. For this reason, and because of the comparatively small rainfall during the rainy season, Mian Mir was chosen for a series of experiments on a large scale regarding the value of certain measures which may be taken against malaria.

Much has been written regarding the value of particular remedies, but it has not been generally realised that there is probably no one infallible remedy, that physical conditions must be taken into consideration, and that what may be an effective remedy in one place may be nearly useless in another.

The principal object of the Royal Society's Commission was the problem of mosquito destruction, and after carefully considering the conditions in Mian Mir it was thought that this method of prophylaxis would offer the best chance of success. At the same time it was decided not to neglect other measures, such as the careful administration of quinine, or the removal to a safe distance from the barracks of any bazar proved to be a source of infection.

The first matter to be considered was how the success of a remedy could be estimated. The general opinion of the inhabitants was obviously too vague a measure, while any estimation of the comparative abundance of adult *anopheles* mosquitoes alone would be too largely dependent upon the skill of an individual observer.

It was decided that the degree of success attained could be best gauged by taking several indications into consideration.

1. The apparent effect upon the number of larvæ.
2. The apparent effect upon the number of adult *anopheles* mosquitoes.
3. The effect upon the amount of malarial disease as determined by (a) the hospital admission-rate; (b) the percentage of the men found infected; and (c) the percentage of children under 10 years of age with malarial parasites in their blood (endemic index). This last test, the endemic index, is certainly the one on which the most reliance can be placed.

The cantonment of Mian Mir covers so great an area that it was practically impossible to carry out operations in every part of it at the same time, and it was therefore resolved in the first instance to carry on experiments in the lines of the Royal Field Artillery, situated in the most malarious part of the cantonment.

The malarial survey of these lines had shown that there were four chief sources of infection for mosquitoes; namely, the syce lines of the 51st Field Battery situated within fifty yards of the barracks; the syce lines of the 54th Field Battery situated within a quarter of a mile of the barracks; the hospital followers' lines within one hundred yards of the barracks, and the Royal Artillery bazar within a quarter of a mile. The endemic index of those places varied from 30 to 60 per cent.

Six species of *anopheles* mosquitoes were found in the lines and bazar; two of them, *A. Rossii* and *A. Culicifacies*, being exceedingly numerous.

It was found that the chief, if not the only, carrier of malarial infection in Mian Mir is the *A. Culicifacies*, the principal breeding places of which are the irrigation watercourses which pass around and through the lines in all directions. The water in these channels is sheltered and impeded in its flow by grass and weeds growing at the edges, and it was found that if the grass and weeds were removed, so that the water flowed along freely at the sides as well as in the middle of the channel, the numbers of larvæ were greatly reduced.* It was hoped, therefore, that constant cleaning of the channels for months together would produce a lasting effect upon the number of *anopheles* mosquitoes, and the principal operations were directed to this end. It was also proposed to line one of the watercourses with bricks and plaster in order to ascertain the effect of such a measure upon the numbers of larvæ in that watercourse. The puddles that would form during the rains were to be filled in. One or more of the regimental bazars was to be moved to a considerable distance from the lines, and quinine was to be issued prophylactically to the troops.

Operations were begun at the end of March under the direction of Captain James with the help of a hospital assistant. Twenty coolies under a headman of the Canal Department were set to work to clear away the grass and weeds from the irrigation channels, to fill up small bays and backwaters, to deepen the channels in places and in every way to improve the flow of water. By the end of April all the watercourses had been treated in this way, and the men were free to recommence operations, going over every part more thoroughly and carefully than before, and smoothing the sides of the channels by plastering them with clay. Such operations were constantly repeated, two men being eventually told off to each watercourse to keep it clear, not only of vegetation at the sides, but of floating leaves which afforded shelter to larvæ.

* Compare a valuable paper, "A Preliminary Report of Observations of the habits of *Anopheles*," by Lieut-Colonel R. N. Campbell, M.B., I.M.S. and U. N. Brahmachari, M.B., *Indian Medical Gazette*, January, 1902.

Great practical difficulties were encountered. Many of the watercourses end in the pool of a Persian-wheel, so that, except for about three hours daily when the wheel is working, the water is stagnant. An attempt was made to deal with such watercourses by thoroughly cleaning and drying them once in every ten days; but the great cost of doing this, and the fact that, in the hot weather, *anopheles* mosquitoes develop from the egg to the adult in less than ten days, render such a measure impracticable. Some of these watercourses were treated with kerosine oil, and this was temporarily successful, but care is necessary to prevent the oil being drawn up by the Persian-wheel and run on to the fields.

One of the irrigation watercourses about half a mile in length, running through the middle of the lines in front of the barracks and hospital, which was an exceedingly abundant source of *anopheles* mosquitoes, was lined with bricks plastered with cement. This work was begun in May and completed in July, and has resulted in a great reduction in the numbers of larvæ in the watercourse.

When the rains began the difficulty attending the experiments increased. The surface of the land on which Mian Mir is situated is flat, and though the soil is sandy, the subsoil is impervious. The rain which falls between May and October is generally distributed in frequent showers. Every heavy shower floods large patches of land and fills the numerous cuttings, which, having no fall can scarcely be called drains, the water dries under the hot sun that follows the dispersal of the rain-clouds, but before the larger collections of water are dried another shower fills them anew. With the first rainfall in May additional men were employed to drain away surface collections of water, and to fill up a number of the deeper pools. About 250 pools of various sizes and two large tanks were filled in.

It had been found in October, 1901, that 60 per cent. of the children of the syces in the lines situated within fifty yards of the barracks were infected with malaria. On the 18th of July, 1902, these lines were removed, the syces and their families being accommodated in tents half a mile away from the barracks pending the building of new lines.

In the other syce lines and in the lines of the hospital followers the systematic treatment of all children with quinine was carried out. It was found that after the first few doses, most of the children took the quinine readily, and that even quite small children suffered no ill effect from a dose of ten grains given on several consecutive days. The natives themselves have appreciated the good results of this treatment as evidenced by the greatly improved health of their children. Another prophylactic measure was the systematic administration of quinine to the troops, which was effectively carried out by means of quinine parades twice a week on consecutive days from the 18th of April.

The operations directed to the destruction of larvæ certainly brought about a reduction in the numbers of adult *anopheles* mosquitoes, but in spite of the checks upon their breeding, adult *A. culicifacies* and *A. Rossii* could be readily found in the houses from July to November. The numbers were, however, less in that part of the cantonment in which the operations were carried out than elsewhere. But it is evident that the problem of materially reducing the number of *anopheles* mosquitoes in Mian Mir is a very difficult one, mainly because the majority of the breeding places cannot be permanently done away with, and it seems to be doubtful whether any operations short of this will produce a very marked reduction in the number of mosquitoes.

The removal of the syce lines from a site about 140 yards from an irrigation watercourse to tents pitched three quarters of a mile away from the nearest watercourse and 600 yards distant from the nearest pool produced very striking results. No *anopheles* mosquitoes were to be found in the tents in September and October. Otherwise, except that they were more exposed to the sun and rain and vicissitudes of temperature, the general conditions of life of the syces and their families were unchanged. The percentage of infected children was reduced from 56.5 in October 1901 to 4 in October 1902; the number of children with enlarged spleens was reduced from 75 per cent. in April 1902, to 60 per cent. in October 1902; and not a single case of fever occurred among the adults throughout the season.

The treatment of the children in the other syce lines was attended with favourable results so far as the children were concerned, and there was said to be a remarkable reduction in the number of cases of malarial fever among their fathers.

The effects on the troops are less easy to gauge. In the first place, the year was an unusually healthy one; in the second, the statistics were deranged by the arrival in the station of a second British infantry regiment in October, and the departure in the end of the same month of both batteries of Royal Artillery to Delhi, men attacked by malarial fever occurring on the line of march being sent back to hospital in Mian Mir; and in the third place, there was much greater care displayed by medical officers in the diagnosis of malarial fever, the tendency being to return doubtful cases under some other heading. Taking all these factors into consideration the results seem to show that the operations were successful in diminishing the incidence of malarial fever.*

With a view to instructing Assistant Surgeons and others who might not have convenient access to larger works, a brief statement of the results of recent researches into the causation and prevention of malarial fevers was drawn up by Captain James. Nearly five thousand copies were circulated, and after the edition was exhausted there remained a demand for more copies. To meet this, a new edition has been prepared and is in the press. The text has been revised, illustrations have been added and the scope of the work has been enlarged so as to make it a convenient introduction to the study of malaria.

* * * * *
172. Increasing attention has in recent years been devoted to the occurrence in India of tubercular diseases, with a result, not unknown in similar cases, that what was generally thought to be rare has been found to be common; and the remark is frequently seen, 'the more tubercle is looked for, the more often it is found.' The consequence of this is that the belief is becoming prevalent that tubercular diseases are not only of frequent occurrence in India, but that they are rapidly increasing in frequency.

How far this is true, it is not possible to say, but granted the greater attention given to the subject and the possibility that implicit reliance ought not to be placed upon the positive result of the microscopical examination of the sputum, it does not appear that the figures obtained from army hospitals and from prisons furnish evidence of any considerable increase of tubercular diseases in the country generally.

* Full particulars will be found in a forthcoming number of the *Scientific Memoirs*, a Report of the Anti-Malarial Operations at Mian Mir (1901—1903) by Captain S. P. James, I. M. S.

In the following statement the admission and death-rates per 1,000 of strength among European and native troops and among convicts in Indian prisons are given.

The figures for the years 1891 to 1894, inclusive, are not precisely the same as those given in the statistical tables appended to this report, for the following reason. In 1895 the *post-mortem* records of all cases of pneumonic phthisis were very carefully examined, when it was found that nearly all these cases were associated with the presence of tubercle, and the returns were changed accordingly. Since 1895 no death has been entered in the statistics as due to pneumonic phthisis, unless the medical officer reporting it, after special reference, has reaffirmed his belief that tubercle was not present. Such cases are rare.

For purposes of comparison all cases of pneumonic phthisis which were recorded prior to 1895 have been included as cases of tubercle of the lungs.

Year.	EUROPEAN TROOPS.		NATIVE TROOPS.		JAILS OF INDIA (EXCLUDING ANDAMANS).	
	Adm. per 1,000.	Deaths. per 1,000.	Adm. per 1,000.	Deaths. per 1,000.	Adm. per 1,000.	Deaths. per 1,000.
1891 . . .	3·7	·55	2·6	·75	4·2	1·98
1892 . . .	3·3	·69	2·5	·67	4·5	2·20
1893 . . .	3·3	·63	2·1	·59	5·4	2·65
1894 . . .	3·5	·46	2·2	·64	5·9	2·91
1895 . . .	4·8	·52	2·3	·67	5·8	2·52
1896 . . .	5·0	·64	2·5	·65	7·3	2·99
1897 . . .	4·2	·56	2·6	·79	7·1	2·80
1898 . . .	3·0	·58	3·5	·63	7·9	2·99
1899 . . .	3·1	·56	3·3	·68	7·8	3·09
1900 . . .	3·4	·58	3·7	·78	8·8	3·76
1901 . . .	3·4	·46	4·2	·84	● 8·6	3·54

Among European troops there has apparently been no increase in recent years in the ratios of admissions and deaths from tubercle of the lungs. The high admission rates in 1895-97 were due to the prevalence of phthisis among the men of a recently arrived regiment recruited in a mining district. The invaliding statistics do not shew any increase either. Exceptionally small numbers were invalided in 1893 and 1899 (·80 and ·75 per mille, respectively), but in the other years the millesimal ratios have fluctuated between 1·10 in 1891, and 1·76 in 1896.

Among native troops, although the death-rates in the years 1899-1901 are higher than in any other three consecutive years, the rate in 1897 is higher than in any other year of the eleven except 1901. There is, however, a distinct rise in the admission rates from 1898 onwards.

In this Report for 1899 (paragraph 202) it was shown that as the ratios of deaths ascribed to anæmia and debility among prisoners fell, so the ratios of

deaths from tubercle rose. It would appear that there has been a similar change in the regimental hospitals. Between 1891 and 1897, the lowest admission rate for anæmia was 4·4 per 1,000 in 1895 and in 1896, while the lowest death-rate was '12 in 1894. In 1897 the admission rate fell to 3·5 and the death-rate to '06. The anæmia admission rates since have all been low, except in 1901, when the rate rose to 4 per 1,000; and the death-rates have remained at '06, except in 1899, when the rate was only '04. Early in 1897 the revised Nomenclature of Diseases in which it is directed that when the cause of anæmia is known the case should be returned under the head of the primary disease, was taken into use; and the increase in the proportion of cases of tubercle of the lung is partially explained by the decrease in the proportion of cases returned as anæmia without special reference to the cause of the condition. The fact that the fall in the ratio of anæmia cases took place before the rise in the ratio of cases of tubercle of the lungs, may possibly be explained by the peculiar conditions of 1897, when a large part of the army was on field service.

Among prisoners, there was a considerable rise in the admission rates for tubercle of the lung in 1893, and another in 1898, while the death-rates have gradually risen, and from 1899 inclusive have been over 3 per mille. The explanation of the rise of the rates among prisoners is not a simple matter, because so many factors exercise a profound influence on their health. A malarious year, for instance, will greatly add to the number of cases of anæmia. A famine year may be expected to add the number of cases both of anæmia and tubercle not alone because the classes from among whom the vast majority of prisoners are drawn, are insufficiently fed, but because the increase of crime causes the jails to be overcrowded. Again, while the watchful care of the prisoners' health in many of the Central Jails could hardly be improved, the statistics receive contributions from small jails in outlying places where the medical skill is not always of the highest order.

The early years of the decennium were very malarious, and cases of anæmia and debility were very common, so that it could not be expected that the growing admission rates for tubercle of the lung would be exactly balanced by declining admission rates for anæmia. The years 1897 and 1900 were marked by terrible famines, and the condition of the people and of the jails favoured the development of both anæmia and tubercle. In 1898, however, there was a great fall in the admission rate for anæmia, and the rates have not again risen.

Although the ratios of deaths ascribed to anæmia have fallen, their fall is not equal to the rise in the ratios of deaths from tubercle of the lungs. If, however, the death-rates from tubercle of the lungs and anæmia are taken together, the increase in the combined death-rates is not marked, and may be explained at any rate for the most part, by the effects of the famine of 1900. There is, however, another heading under which deaths are returned which must be taken into account—debility and old age; and if the combined death-rates from tubercle of the lungs, anæmia, debility and old age during the eleven years are compared, it will be found that the death-rates were exceptionally high in 1894 (an unhealthy year) and in 1897 (famine) and 1900 (famine), but no progressive increase is discernible. The tendency, then, has been for the tubercle rates to rise at the expense of the anæmia and debility rates; but as the hygienic condition of many of the jails has been improved, the rates under the latter heading should have fallen irrespective of the greater precision of diagnosis, so that it may be that tubercle

has actually increased among the jail population. It certainly is not decreasing, and the death-rate from tubercle of the lungs is higher among Indian prisoners than it is among the English population at any age period.*

The following statement shows the relation of tubercle of the lungs to anæmia and debility in the different jail administrations during 1901.

Provinces.	TUBERCLE OF THE LUNGS.			ANÆMIA AND DEBILITY.		
	Per 1,000 of Str.		Percentage to total deaths.	Per 1,000 of Str.		Percentage to total deaths.
	Ad.	D.		Ad.	D.	
Andamans	10·8	6·57	17·2	3·9	·08	·2
Burma	9·9	4·31	28·2	4·7	·17	1·1
Assam	2·2	...	...	30·6	3·74	14·3
Bengal	9·4	3·72	13·5	10·0	·40	1·4
United Provinces	8·6	3·68	15·2	22·4	·48	2·0
Punjab	8·7	3·04	11·3	20·6	1·11	4·1
North-West Frontier Province	3·2	...	...	13·6	...	...
Bombay	5·6	3·80	10·5	15·5	1·46	4·0
Berar	4·0	2·02	8·1	14·8	2·70	10·8
Central Provinces	5·2	2·50	9·1	31·2	2·29	8·3
Madras	12·0	4·11	17·6	4·8	·29	1·2
Baluchistan—Quetta ... ..	...	...	...	...	...	...
Rajputana—Ajmer ... ..	...	...	...	40·4	4·26	11·8
Coorg—Mercara	18·3	...	...	73·4	27·52	16·7
India	8·8	3·86	14·4	14·5	·71	2·6
India, excluding Andamans	8·6	3·54	13·8	15·8	·78	3·0

It is not yet possible to form any accurate idea of the amount and distribution of tubercular disease among the general population of India, as our registration returns, although they will in future include respiratory diseases, take no account of phthisis. But in the great seaports registration is more advanced, and the following figures compiled from the weekly Port Health reports, when compared with the figures recorded in London are sufficiently remarkable.

Mortality per 1,000.

	Total.	Excluding plague.	Phthisis.
London (Registration County) 1900 †	18·743	.....	1·718
Calcutta, 1901 ‡	37·7	28·4	1·2
Bombay, 1901 ‡	75·5	51·6	8·3

In both towns and particularly in Bombay deaths from plague may be returned as deaths from phthisis, but even if this is largely the case, the death-rate

* Registrar General's Report, 1900, page xxx.

† Registrar General's Report, 1900, page cviii.

‡ Excluding one week for which returns not available.

attributed to phthisis is very high, and it is satisfactory to know that special measures to combat the disease are being taken.

In connection with the Resolutions of the General Meeting of the British Congress on Tuberculosis, the Government of India took the opportunity to suggest to all local governments and administrations that leaflets, containing brief directions for the avoidance of danger to their neighbours, should be given at all public dispensaries and hospitals to patients suffering from tubercular phthisis; that suitable action in regard to the inspection of articles of food and drink should be taken in municipal towns; that arrangements should be gradually made in all jails, where such do not already exist, for the isolation and treatment in the open air of phthisical cases; and that the special attention of Inspectors under the Indian Factories Act should be drawn to the measures that can be taken under the Act to secure the absence of overcrowding, the provision of good ventilation and the observance of cleanliness.

* * * * *

173. Excellent work continues to be done at the Pasteur Institute, Kasauli, under the direction of Major D. Semple, M.D., R. A., M. C. During the year ending 8th August, 1902, 543 persons, who had been bitten by rabid animals were treated, as compared with 321 treated during the previous year.

The following tables exhibit the results among Europeans and natives, respectively.

Europeans 215—

Men ...	...	...	...	...	164
Women ...	...	...	...	...	23
Children ...	...	...	...	...	28

CLASSES.	SUB-CLASS I. BITTEN ON THE HEAD OR FACE.			SUB-CLASS II. BITTEN THROUGH THE EXPOSED SKIN ON ANY PART OF THE BODY OTHER THAN THE HEAD OR FACE.			SUB-CLASS III. BITTEN THROUGH THE CLOTHING.			TOTALS.		
	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.
CLASS A— Bitten by animals proved rabid.	9	0	0	63	0	0	14	0	0	86	0	0
CLASS B— Bitten by animals certified rabid.	2	0	0	43	0	0	7	0	0	52	0	0
CLASS C— Bitten by animals suspected rabid.	7	0	0	47	0	0	23	0	0	77	0	0
TOTAL ...	18	0	0	153	0	0	44	0	0	215	0	0

Natives 328—

Men	...	...	...	...	...	257
Women	...	...	...	...	...	19
Children	...	...	...	...	...	52

CLASSES.	SUB-CLASS I. BITTEN ON THE HEAD OR FACE.			SUB-CLASS II. BITTEN THROUGH THE EXPOSED SKIN ON ANY PART OF THE BODY OTHER THAN THE HEAD OR FACE.			SUB-CLASS III. BITTEN THROUGH THE CLOTHING.			TOTALS.		
	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.	Treated.	Failures.	Percentage mortality.
CLASS A—												
Bitten by animals proved rabid.	6	0	0	81	3	3.7	5	0	0	92	3	3.26
CLASS B—												
Bitten by animals certified rabid.	1	0	0	38	0	0	3	0	0	42	0	0
CLASS C—												
Bitten by animals suspected rabid.	15	0	0	155	2	1.29	24	0	0	194	2	1.03
TOTAL ...	22	0	0	274	5	1.83	32	0	0	328	5	1.52

The tables do not include twenty persons who presented themselves for treatment, but were found not to require it, nor do they include two patients (natives) who developed hydrophobia during treatment, and four persons (one European and three natives) who were seized with hydrophobia within fifteen days after the last inoculation.

The results of the treatment of Europeans are perfect. The failures among natives are attributed to the following causes:—

1. Natives, owing to their scanty clothing, were generally more severely bitten than Europeans.
2. Many wasted valuable time before going to the institute for treatment.
3. In only a few of the cases had the wounds been cauterised early or efficiently; and in a considerable number of the cases the wounds had been neglected and were suppurating on arrival at the institute.
4. A large number were bitten by jackals.

The greater danger of the jackal's bite is illustrated by the fact that most of the casualties during the year occurred among a batch of 35 persons treated for jackal bites in August 1901. These cases were treated in the ordinary way, but over 11 per cent. died. Since then, persons bitten by jackals have been treated by a more intensive method than those bitten by dogs, and out of 64 persons bitten by jackals treated in this way not one has died.

Major Semple urges the necessity for the immediate 'first aid' treatment of all bites. He considers pure carbolic acid to be the best caustic, because it penetrates into all the crevices of the wound, without causing excessive pain. It should be thoroughly swabbed into the wound and then the wound should be washed with water. Failing carbolic acid, other caustics may be used, or an antiseptic solution or pure water. The object is to remove as much as possible of the poison from the wound and to destroy *in situ* what cannot be removed.

Major Semple deprecates the sucking of the wound, on account of the danger of inoculating the lips, or mouth; and excision, on account of the danger of carrying the poison to the larger wound made by the knife. He also warns all persons bitten by rabid dogs of the great danger involved in delaying the commencement of the antirabic treatment.

In addition to the antirabic treatment, much general bacteriological work was carried out at the laboratory in connection with the diagnosis of enteric fever, Malta fever, malarial fever, plague, tubercle, diphtheria, tumours, etc.

Antityphoid vaccine for 4,000 cases was prepared and sent out.

Samples of brain and spinal cord of suspected animals to the number of 106 were tested, and in 80 positive results were obtained.

The preparation of antivenene was commenced, and the serum will soon be ready for issue.

Researches in connection with the improvement of the antirabic treatment especially with a view to dealing successfully with late cases were undertaken.

Investigations into the nature of surra, with the object of obtaining a curative remedy were carried out.

"Anthrax vaccine has been prepared and can now be sent to any part of India when required. The preparation of this vaccine necessitated a prolonged series of experiments in order to obtain cultures of anthrax bacilli of the requisite degree of attenuation. Ponies and sheep inoculated with this vaccine have withstood the subsequent inoculation of virulent anthrax taken direct from the spleen of a horse immediately after death from anthrax "

* * * * *

174. The apparently increasing prevalence among the people of the Central Provinces, chiefly in the districts of Saugor, Damoh, Hoshangabad, Jubbulpore and Bilaspur, of a form of paralysis believed to be due to eating the seeds of a vetchling (*Lathyrus sativus*) known locally as *teora*, has led to a special enquiry, the conduct of which has been entrusted to Major Andrew Buchanan, I.M.S. It may be expected that this investigation will settle the vexed question of the cause of lathyrism and suggest practicable measures for its prevention.

* * * * *

175. Among prisoners in Indian jails in 1902 there were 104 deaths ascribed to cerebro-spinal meningitis. Fatal cases occurred in every month of the year except July, the largest numbers of deaths occurring in February and March, 21 and 24, respectively. Cases occurred in six provinces, the Punjab heading the list with 41 (maximum monthly number 12, in May) closely followed by Bombay with 37 (maximum number 14, in March). Ten deaths occurred in the United Provinces, nine in Bengal, five in the Central Provinces and two in Burma. There can be little doubt that the disease was widely spread among the general population of many of the provinces. As the subject was one that called for special investigation an officer was appointed to carry out an enquiry into the etiology of the disease as it occurs in India. Captain Robertson Milne has been selected for this purpose.

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176. In 1884 the publication of the Scientific Memoirs by Medical Officers of the Army of India was begun for the purpose of affording a convenient medium for the publication of selected original papers on scientific subjects which it had been the custom to

include in this report. Twelve parts of the Scientific Memoirs have been published, the last in 1901. It was found in practice that the publication of such papers at certain intervals presented serious disadvantages; on the one hand, the supply of suitable contributions was exceedingly irregular, and on the other, important papers had to be held over until sufficient matter to fill a volume accumulated.

To obviate those disadvantages it was decided to publish papers separately as soon after their completion as possible; and the opportunity was taken, while retaining the old name of the series, to enlarge the title so that papers by all officers of the Medical and Sanitary Departments of the Government of India might be included. At the same time the arrangements for the distribution of the numbers of the series were revised, and copies are now very widely distributed, not only in India and in Great Britain, but to most of the universities and to many of the more important scientific libraries throughout the world.

BENJAMIN FRANKLIN,

Surgeon-General, I. M. S.,

Sanitary Commissioner with the Government of India.

APPENDICES

TO THE

Annual Report of the Sanitary Commissioner with the
Government of India

FOR

1901.

Table I.—Highest, lowest and mean temperature in shade and in

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 (A'ipore)	80.3	59.1	63.7	-1.5	87.1	53.1	70.8	+0.8	101.7	59.3	79.9	+0.2	103.7	69.2	86.6	+1.6	104.0	70.2	86.4	+1.0	108.4	71.2	86.8	+2
Narayanganj*	80.1	49.7	64.7	-2.0	89.1	51.8	70.9	+0.9	97.6	58.3	78.8	-0.5	100.1	68.2	84.6	+0.9	96.1	69.2	82.8	+0.7	93.6	73.2	83.3	-0.8
Chittagong ...	84.4	48.7	66.4	+0.3	92.2	51.4	72.3	+2.2	99.7	55.7	78.1	+1.2	92.7	67.5	81.2	+0.8	96.0	70.1	82.6	+1.6	93.4	79.6	80.9	+0.6
Sibsagar*	71.3	44.9	59.3	-0.6	80.3	47.9	64.7	+1.8	88.7	53.9	69.7	+0.1	91.2	62.0	72.9	-1.7	93.2	66.0	79.1	+0.2	93.2	71.0	81.8	-1.1
Silchar*	82.4	45.5	64.6	-0.2	90.5	50.4	70.6	+3.1	92.6	55.4	77.1	+2.7	96.1	63.4	78.6	+0.4	95.6	68.3	82.0	+2.0	99.1	70.3	82.7	+0.6
Cuttack*	85.4	55.1	70.7	-1.5	92.4	57.6	75.8	-1.8	102.4	63.7	83.7	-1.1	106.4	74.2	90.3	+0.1	107.4	73.2	90.8	+0.4	111.5	77.2	92.1	+4
Hazaribagh ...	75.7	44.7	57.6	-3.3	81.7	47.2	63.8	-1.8	95.2	52.4	74.4	-1.0	104.3	68.1	84.9	+0.7	105.0	65.9	86.1	+0.5	107.9	72.9	88.6	+0.6
Patna*	74.4	45.4	59.8	-1.3	80.5	48.4	65.8	+0.5	97.3	52.4	75.5	-1.9	105.7	68.2	87.3	+0.2	107.5	69.2	89.1	+0.8	110.0	73.2	90.0	+1.1
Darjeeling ...	48.8	28.4	36.9	-2.4	57.3	31.7	44.3	+3.6	66.0	35.0	48.2	0	70.3	43.1	55.5	+1.6	69.3	47.1	57.1	+0.8	72.3	53.2	61.3	+1.1
Allahabad ...	77.3	44.5	57.5	-3.1	82.0	44.6	64.0	-1.3	102.6	50.6	75.3	-2.5	110.2	65.4	87.0	-0.7	114.4	72.3	92.6	+1.2	118.3	72.6	97.8	+7
Lacknow*	78.2	42.2	57.3	-2.9	85.3	47.7	64.0	-0.4	100.3	50.7	74.4	-1.6	107.2	62.2	85.5	-1.2	113.8	69.3	91.2	+0.8	118.8	72.8	95.7	+4.1
Meerut ...	75.7	41.7	54.6	-1.6	79.3	41.7	59.2	-1.6	98.8	49.8	70.5	-0.8	102.2	57.8	80.6	-1.9	110.4	64.3	88.7	+0.2	114.9	74.8	93.9	+3.1
Delhi*	73.2	42.2	55.9	-3.7	78.2	48.1	61.3	-1.9	95.7	51.6	73.8	-1.4	101.2	62.1	84.0	-2.9	112.2	71.6	92.5	+0.8	114.2	70.1	97.4	+3.1
Agra*	80.0	43.4	58.0	-3.0	81.0	47.9	64.0	-1.0	102.6	55.9	76.5	-0.7	105.0	67.4	86.2	-2.0	112.5	73.4	93.0	+0.2	114.5	75.9	97.9	+3.1
Jhansi*	81.1	46.7	59.8	-3.6	84.7	50.2	66.2	-1.2	103.3	58.6	79.7	+0.4	108.8	72.1	89.4	-0.5	115.4	78.7	91.7	+2.8	115.4	78.1	99.9	+6.1
Ajmer*	78.9	37.9	56.2	-3.3	82.4	40.9	61.7	-1.2	99.9	52.8	75.0	+0.7	103.4	59.7	83.6	-0.9	111.9	70.6	93.7	+3.3	114.4	77.6	94.3	+4.1
Sauger*	82.4	43.1	61.2	-2.8	83.4	47.6	65.5	-1.6	99.4	58.1	77.3	-1.1	104.4	70.6	86.6	-0.3	111.5	76.1	93.0	+1.8	111.5	74.1	92.8	+5.1
Jebbulpore*	81.9	42.4	60.4	-2.4	87.9	43.4	65.7	-1.1	98.0	52.4	75.3	-1.9	106.0	64.7	74.9	-1.3	112.0	71.6	92.2	+0.6	112.0	71.1	92.2	+4.6
Mooltan*	73.8	38.5	55.6	-0.7	82.3	42.9	59.7	+0.2	101.4	52.9	75.0	+2.9	105.4	60.9	81.0	?	118.9	69.0	92.6	+2.3	118.5	77.0	98.8	+4.3
Lahore ...	72.0	38.6	52.5	+0.5	81.0	38.8	59.8	+0.1	96.9	48.0	70.6	+2.8	105.2	56.2	78.8	-0.8	114.6	64.9	88.2	+0.8	118.2	70.3	94.1	+2.9
Peshawar ...	68.7	32.1	47.9	-1.6	77.9	36.2	52.1	-0.4	87.9	41.6	64.4	+1.4	100.0	47.5	71.1	-2.0	111.0	57.5	81.7	-1.7	114.0	61.5	78.9	-1.8
Ranikhet ...	57.3	29.4	41.1	-4.9	61.2	31.0	44.9	-2.2	74.2	33.6	55.5	-1.0	81.0	49.0	64.0	-0.9	86.3	51.0	69.6	+1.4	89.9	53.0	74.9	+4.1
Chakrata ...	55.8	25.8	36.6	-5.0	58.8	25.8	39.0	-3.3	68.7	31.8	50.6	-0.7	74.2	41.2	57.6	-2.1	79.8	44.2	63.5	-1.3	85.3	48.2	69.4	+2.2
Indore*	86.3	41.6	62.5	-2.1	88.8	40.6	65.3	-1.7	98.8	54.6	77.2	+0.6	104.8	62.6	84.9	+0.3	111.3	70.6	90.7	+1.8	100.3	73.1	89.4	+4.5
Deesa ...	89.4	38.0	63.4	-2.2	93.6	40.8	66.5	-4.0	106.9	56.2	82.2	+1.5	109.9	64.3	88.5	+0.5	112.3	74.0	91.9	+0.7	116.9	76.4	93.1	+5.3
Kurrachee ...	82.4	43.2	64.4	-0.6	88.0	45.8	65.7	-2.5	102.7	57.2	78.2	+2.7	111.3	67.2	83.4	+3.7	116.3	75.7	86.2	+2.2	111.4	79.4	89.0	+2.2
Bombay ...	86.6	63.0	74.6	-0.6	90.6	58.4	72.8	-2.3	96.4	67.8	79.5	+0.7	93.6	76.0	83.4	+0.8	93.3	80.0	86.2	+1.5	98.4	78.1	83.2	0
Belgaum ...	90.8	51.3	72.0	+2.1	89.4	43.4	71.3	-1.5	95.6	61.8	78.2	+1.2	100.1	62.8	79.2	0	96.4	64.9	76.3	-1.4	92.5	65.8	72.9	+0.2
Nagpur ...	90.1	49.4	68.3	+0.1	91.3	51.7	71.7	-2.0	101.5	59.7	82.1	-1.9	110.2	67.1	89.3	-1.2	115.6	73.6	94.5	-0.1	112.2	73.1	89.5	+3.5
Bellary ...	95.8	62.9	78.0	+4.8	96.7	60.0	80.7	+1.0	103.0	68.9	85.5	-0.1	109.0	72.7	90.0	+0.8	105.0	67.2	87.2	-1.4	101.0	69.2	83.0	+0.1
Bangalore ...	87.3	55.1	72.3	+4.7	89.0	55.8	74.1	+2.2	93.8	59.7	76.6	-0.3	98.0	62.1	81.2	+2.1	97.0	64.8	78.8	+0.2	89.3	64.6	75.0	+0.9
Madras ...	89.7	64.0	77.8	+2.3	89.3	67.4	80.0	+2.9	92.0	69.2	80.1	-0.7	95.4	71.2	84.1	-0.6	107.2	77.0	87.9	+0.5	108.5	78.5	88.6	+1.3
Rangoon ...	94.2	57.8	76.4	+2.4	96.1	63.1	78.7	+2.3	100.5	68.1	82.1	+1.6	104.0	73.0	86.0	+1.3	100.6	72.9	81.7	-0.8	92.2	73.9	80.2	+0.8
Akyab ...	86.6	49.4	68.5	-1.4	92.7	54.0	73.0	+0.7	96.6	54.9	70.9	-1.1	98.2	71.1	83.6	+0.8	95.4	72.3	82.5	+0.3	94.1	73.3	80.7	-0.5

*The mean temperature for these stations is the

Variation from the average of each month in thirty-four stations of India during 1901.

Station.	JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.			Station.					
	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.	Variation.	Highest.	Lowest.	Mean.		Variation.				
4°0	74.3	83.9	+0.8	93.2	75.5	83.4	+0.9	94.0	74.1	83.2	+0.7	93.5	69.8	82.1	+2.1	90.3	55.0	72.9	+0.5	81.7	51.2	65.9	+0.6	Calcutta (Allpore)
2°6	75.7	84.2	+0.4	89.1	76.2	83.7	+0.4	92.1	75.2	83.7	+0.1	92.1	71.2	82.2	+0.6	89.1	57.8	74.8	0	82.1	52.8	67.4	-0.5	Narayanaganj.*
0°5	74.5	82.1	+1.1	90.0	74.5	80.7	+1.0	91.7	73.4	80.8	+0.2	90.9	67.1	79.8	+0.8	88.4	60.3	74.5	+0.5	82.8	53.1	67.3	-0.1	Chittagong.
5°3	74.0	82.9	-0.6	93.2	75.0	83.2	-0.6	92.2	73.0	81.7	-0.9	89.2	67.0	76.2	+0.2	85.3	55.4	69.6	+0.5	75.3	45.9	61.3	+0.2	Sibsagar.*
0°1	75.3	84.9	+1.3	95.6	75.3	83.9	+0.9	95.6	72.3	83.0	-0.1	95.0	64.3	81.6	+1.0	91.0	59.4	74.5	0	85.4	48.9	62.0	-0.4	Silchar.*
7°4	76.2	85.1	+1.0	97.4	75.2	84.1	+0.4	97.9	75.2	84.8	+1.0	95.4	71.2	84.0	+1.7	92.4	58.1	75.3	-0.3	85.4	54.1	69.6	-0.6	Cuttack.*
7°2	70.9	79.6	+1.5	90.4	71.3	77.9	+0.6	89.0	68.1	76.9	-0.1	88.2	64.2	76.2	+2.7	80.4	53.6	68.0	+1.2	78.9	47.2	61.5	+1.0	Hazaribagh.
12°0	75.7	86.5	+1.5	95.0	76.2	84.7	+0.3	95.0	70.2	84.6	-0.1	96.0	66.3	83.7	+3.3	92.5	57.4	73.4	?	81.8	48.8	64.4	+1.8	Patna.*
21°9	85.5	62.0	+0.9	70.8	54.7	61.9	+1.3	68.8	57.7	59.5	+0.8	67.0	48.9	56.5	+2.1	62.5	37.5	49.1	+1.7	...	...	...	?	Darjeeling.
24°1	76.5	89.0	+4.3	99.4	75.3	83.7	+0.5	98.7	73.3	82.9	-0.3	95.6	60.4	80.1	+1.5	94.3	49.4	69.1	+0.1	85.3	42.1	60.3	-0.4	Allahabad.
12°3	75.3	89.3	+3.7	97.8	76.3	84.9	+0.3	98.3	71.8	83.7	-0.3	94.3	59.7	79.8	+1.5	92.8	48.7	69.4	+2.1	82.3	42.2	61.9	+1.4	Lucknow.*
11°6	73.0	87.1	+1.6	94.6	76.3	83.3	-0.5	97.4	67.3	82.9	+0.1	92.3	57.5	77.7	+2.1	82.9	45.7	65.8	+1.0	81.0	41.4	58.0	+0.8	Meerut.
11°2	76.0	89.8	+2.6	98.2	76.5	85.7	+0.4	100.2	71.1	86.2	+1.6	98.2	65.1	82.7	+2.8	92.2	51.1	70.6	+1.4	81.2	46.6	62.7	+1.3	Delhi.*
12°5	76.9	91.9	+5.4	97.5	74.9	85.7	+1.2	102.5	73.4	87.1	+2.8	103.0	65.9	84.7	+4.3	95.0	53.9	72.7	+3.3	86.0	45.4	64.2	+2.1	Agra.*
13°4	76.2	90.5	+5.9	93.2	73.6	82.3	-0.4	99.3	72.1	84.7	+1.7	100.3	69.1	85.4	+4.9	97.2	56.7	74.8	+4.4	90.3	49.3	67.5	+3.2	Jhansi.*
11°9	76.6	88.9	+5.1	94.9	73.6	81.7	+0.7	100.4	68.1	84.8	+3.2	99.9	61.7	82.6	+5.4	95.4	45.3	70.7	+4.4	85.9	42.4	64.9	+4.6	Ajmer.*
03°4	70.1	82.9	+3.6	90.9	69.6	77.1	-0.9	94.4	66.6	72.1	+0.6	94.4	62.1	80.3	+4.3	92.4	52.1	71.6	+3.3	84.9	40.1	66.8	+3.3	Saugor.*
01°5	71.1	83.0	+2.9	89.9	69.6	78.0	-1.4	94.0	66.2	79.8	-0.2	93.0	56.4	77.7	+2.2	90.4	41.9	68.0	+1.4	85.4	39.4	61.6	+1.0	Jubbulpore*
19°5	79.5	95.7	+3.6	111.4	79.5	93.8	+2.7	105.4	67.0	88.9	+0.4	106.4	59.4	83.3	+3.5	94.3	45.4	70.7	+2.9	83.3	49.5	60.9	?	Moolan.*
18°3	71.9	89.0	+0.7	104.0	71.9	89.3	+2.7	103.9	65.9	86.0	+2.1	104.4	57.8	79.5	+5.0	94.6	44.0	68.6	+3.2	83.0	37.0	56.4	+3.2	Lahore.
17°0	74.9	92.1	+2.5	110.5	72.7	91.6	+4.4	100.0	62.0	81.3	-0.7	101.0	54.0	73.1	+2.2	85.1	40.9	60.0	+1.4	75.1	35.7	51.4	+0.5	Peshawar.
27°1	57.4	69.2	+1.0	77.0	59.9	66.9	+0.1	70.0	55.0	64.9	-0.6	74.1	53.1	63.0	+2.3	70.3	41.0	54.9	+0.9	62.3	30.0	48.2	-1.1	Ranikhet.
22°3	84.2	64.8	+0.2	70.7	56.7	63.2	-0.2	70.7	56.7	60.1	-1.6	70.7	49.7	59.7	+2.9	71.2	39.9	51.8	+1.3	64.0	30.4	45.0	-0.5	Chakrata.
99°8	70.1	81.3	+3.2	85.3	68.1	76.1	-0.9	93.8	62.1	78.5	+1.1	95.3	60.1	79.5	+4.1	93.3	45.1	72.0	+3.2	80.8	45.1	67.0	+3.3	Indore.*
97°8	76.4	88.8	+5.0	95.4	74.0	83.0	+1.5	108.0	71.3	85.9	+4.0	106.3	67.3	86.3	+5.6	103.3	49.9	78.7	+4.7	94.3	49.9	72.5	+4.3	Deesa.
95°0	78.4	86.0	+2.0	91.9	76.5	82.7	+0.6	103.4	68.9	84.5	-0.1	104.2	64.2	81.8	+2.1	99.9	56.4	76.0	+1.9	87.6	50.4	68.8	+1.8	Kurrachee.
88°1	74.2	81.2	+0.3	86.6	75.2	80.1	+0.2	89.1	73.3	81.5	+1.8	93.2	74.5	81.3	+0.2	93.9	70.1	80.5	+1.7	90.3	68.1	77.6	+1.5	Bombay.
77°8	69.4	76.5	+0.4	80.3	63.8	69.6	+0.1	87.3	60.4	72.1	+1.8	88.4	59.2	72.9	+0.6	85.3	53.4	72.2	+1.4	80.5	54.9	70.9	+1.5	Belgaum.
98°1	70.6	81.7	+1.5	89.6	72.1	78.8	-1.4	96.9	68.6	81.6	+1.3	96.9	61.1	81.6	+2.8	92.9	52.7	73.5	+0.8	87.6	50.2	67.2	+0.4	Nagpur.
96°0	70.2	81.2	+0.7	96.4	71.2	81.3	+0.5	100.0	71.0	82.4	+2.3	97.0	65.5	84.3	+2.5	94.0	59.1	76.2	+1.0	91.0	55.1	72.9	+0.6	Bellary.
87°0	64.3	73.1	+0.8	88.4	61.9	73.5	+1.2	90.7	65.1	75.0	+2.7	85.8	60.1	73.5	+1.5	84.9	55.1	71.2	+1.4	81.1	52.1	67.2	-0.2	Bangalore.
102°3	73.5	85.6	+0.4	99.1	73.3	84.1	+0.1	97.5	72.9	84.0	+0.2	97.3	69.4	82.1	+1.0	90.2	59.5	77.9	-0.2	85.5	61.4	74.9	-1.1	Madras.
88°8	73.7	78.4	+0.1	89.1	73.7	78.1	-0.4	90.3	72.7	80.4	+1.7	91.3	73.2	79.3	-0.5	91.5	72.0	79.8	+1.9	89.8	60.6	74.2	-1.2	Rangoon.
88°7	74.3	79.8	-0.2	88.2	73.8	79.5	-0.7	89.9	72.7	81.5	+0.1	90.4	74.0	81.8	+0.5	88.9	68.9	78.8	+0.9	84.2	55.3	70.7	-1.5	Akyab.

mean of the maximum and minimum temperatures.

TABLE II—Monthly and annual RAINFALL and its variation from the average at thirty-four stations of India during 1901.

STATIONS.	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.	Actual.	Variation.
Calcutta (Alipore)	1.31	+0.71	1.95	+0.87	0.61	-1.57	1.55	-0.19	6.22	-1.40	8.85	-1.89	12.99	+0.53	13.30	+0.35	19.68	+5.75	1.99	-2.40	2.87	+2.21	0	-0.22	70.11	+6.45	
Narayana	0.30	+0.66	0.44	-0.82	0.61	-1.57	2.35	-2.02	4.76	-5.34	24.47	-11.41	6.05	-7.73	10.55	-1.77	18.70	+10.19	4.36	-0.16	2.13	+0.30	0	-0.16	74.92	+1.29	
Chittagong	0.03	+0.46	0.00	-0.72	0.30	-2.22	5.01	+1.16	1.17	-9.31	19.00	-3.69	15.11	-8.00	16.20	-0.86	17.36	+4.45	11.93	+5.39	5.15	+3.62	0	-0.85	85.05	-20.28	
Sibsagar	1.64	+0.17	1.64	-0.32	0.66	-4.41	7.49	+1.88	8.50	-4.13	15.73	-2.04	15.62	-1.48	15.12	-1.07	11.07	+0.55	7.68	+2.24	5.83	+4.85	0.17	-0.46	91.15	-4.94	
Silchar	0.20	+0.52	0.14	-2.15	0.57	-8.14	10.50	+3.16	6.28	-10.07	19.53	-2.90	19.63	+0.83	18.11	-1.55	15.37	+1.02	5.65	+1.00	3.12	+1.81	0	-0.46	165.40	-10.87	
Cuttack	1.21	+0.89	2.48	+1.95	0	-1.41	0.91	-0.24	3.03	+1.38	4.00	-7.53	12.75	-0.16	7.44	-4.93	5.71	+3.96	5.82	+1.82	3.95	+2.22	0	-0.27	45.40	-18.04	
Hazratnagar	3.06	+2.50	2.77	+1.95	0.35	-0.40	0.68	-0.33	3.38	+1.12	2.25	-5.32	8.10	-3.65	8.05	-3.25	3.89	+3.51	6.20	-3.05	2.24	+0.05	0	-0.20	43.15	-9.21	
Patna	2.26	+1.61	1.37	+0.84	0.48	-0.89	1.53	-3.68	8.81	+0.31	19.71	-3.08	32.15	-0.30	26.68	+1.37	3.89	+3.51	6.20	-3.05	2.24	+0.05	0	-0.10	39.41	-15.69	
Darjeeling	1.63	+0.96	0.66	-0.89	2.34	+0.69	1.53	-3.68	8.81	+0.31	19.71	-3.08	32.15	-0.30	26.68	+1.37	3.89	+3.51	6.20	-3.05	2.24	+0.05	0	-0.10	39.41	-15.69	
Allahabad	3.03	+2.18	1.17	+1.28	0.99	-0.28	0	-0.02	0.18	-0.02	1.12	-4.31	8.78	-2.47	9.74	-2.04	12.31	+6.24	4.40	-1.83	0.42	+0.22	0.73	-0.10	168.84	-13.16	
Lucknow	1.54	+0.51	1.63	+1.28	0.99	-0.28	0	-0.02	0.18	-0.02	1.12	-4.31	8.78	-2.47	9.74	-2.04	12.31	+6.24	4.40	-1.83	0.42	+0.22	0.73	-0.10	168.84	-13.16	
Meerut	2.80	+1.59	1.04	+0.25	0.44	-0.33	0	-0.24	0	-0.69	0.35	-2.69	9.94	+0.40	11.86	+1.37	1.83	+3.91	0	-0.42	0	-0.68	0.66	-0.32	36.66	-2.77	
Delhi	1.35	+0.11	0.52	-0.09	0.28	-0.33	0	-0.24	0	-0.69	0.35	-2.69	9.94	+0.40	11.86	+1.37	1.83	+3.91	0	-0.42	0	-0.68	0.66	-0.32	36.66	-2.77	
Agra	1.19	+0.66	0.58	+0.37	0.28	-0.03	0	-0.14	0.38	-0.20	1.35	-1.80	7.16	-2.66	9.22	-0.13	0.95	+4.18	0	-0.68	0	-0.68	0.14	-0.34	38.46	-4.59	
Jhansi	2.01	+1.42	1.18	+0.85	0.19	-0.16	0.44	+0.31	2.20	-0.29	0.17	-4.72	11.30	-8.37	9.22	-1.55	0.46	+4.45	0.20	-0.70	0	-0.65	0.20	-0.45	21.07	-9.19	
Ajmer	1.40	+0.88	0	-0.30	0.22	+0.65	0	-0.66	0.45	-0.30	1.11	-1.17	5.32	-1.97	4.18	-3.45	0.35	+2.28	0.60	+0.20	0	-0.10	0.04	-0.23	43.51	+3.83	
Saugor	2.80	+2.19	0.17	+0.63	0.53	+0.02	0.31	+0.13	0.66	-0.65	1.53	-7.57	10.97	-0.83	34.78	-18.66	4.97	-3.80	0.61	-1.46	0	-0.45	0	-0.70	49.97	+1.10	
Jubbulpore	2.28	+1.32	1.12	+0.63	0.53	+0.02	0.31	+0.13	0.66	-0.65	1.53	-7.57	10.97	-0.83	34.78	-18.66	4.97	-3.80	0.61	-1.46	0	-0.45	0	-0.70	49.97	+1.10	
Mooltan	0.25	+0.23	0.26	-0.12	0.15	+0.60	0.19	+0.10	0.81	+0.30	0.10	-0.40	0.57	-2.37	0.33	-1.25	0	-0.42	0	-0.26	0	-0.10	0	-0.10	2.54	-5.91	
Lahore	1.54	+0.48	0.22	-0.88	1.35	+0.60	0.19	+0.10	0.81	+0.30	0.10	-0.40	0.57	-2.37	0.33	-1.25	0	-0.42	0	-0.26	0	-0.10	0	-0.10	2.54	-5.91	
Ranikhet	1.09	+0.68	1.53	+0.55	2.10	+1.42	0.81	+0.27	1.34	+0.31	0.96	-0.28	9.86	+3.19	2.83	-3.06	0.69	-2.40	0	-0.26	0	-0.10	0	-0.10	2.54	-5.91	
Peshawar	4.93	+1.09	2.40	+1.45	3.12	+1.42	0.81	+0.27	1.34	+0.31	0.96	-0.28	9.86	+3.19	2.83	-3.06	0.69	-2.40	0	-0.26	0	-0.10	0	-0.10	2.54	-5.91	
Raichhat	0.76	+0.38	0	-0.18	0.11	+0.09	0.15	+0.09	0.77	+0.02	1.70	-4.86	11.44	-6.5	0.10	-2.66	1.22	+6.57	0.29	+0.18	0	-0.10	0	-0.38	17.96	-3.99	
Chattrata	10.35	+6.83	6.67	+2.88	2.25	-0.14	0.10	-1.38	3.12	+1.12	2.13	-4.78	20.32	+0.90	24.91	+6.32	3.18	-3.74	0	-0.84	0	-0.33	1.14	+0.43	51.36	-3.26	
Indore	0.76	+0.38	0	-0.18	0.11	+0.09	0.15	+0.09	0.77	+0.02	1.70	-4.86	11.44	-6.5	0.10	-2.66	1.22	+6.57	0.29	+0.18	0	-0.10	0	-0.38	17.96	-3.99	
Dessa	0.11	+0.66	0	-0.10	0.02	-0.02	0	-0.01	0.24	+0.24	0	-0.32	0.40	-0.52	0	-1.55	0	-0.54	0	-0.26	0	-0.66	0	-0.66	25.32	+1.23	
Kurrachee	0.59	+0.13	0.62	-0.29	0.03	-0.20	0	-0.33	0.01	-0.03	24.74	+5.37	33.22	+6.05	14.31	+2.88	1.87	-0.04	0.50	-2.68	0	-0.66	0	-0.66	25.32	+1.23	
Bombay	0.74	+0.61	0	-0.01	0	-0.03	0.04	+0.03	0.01	-0.03	24.74	+5.37	33.22	+6.05	14.31	+2.88	1.87	-0.04	0.50	-2.68	0	-0.66	0	-0.66	25.32	+1.23	
Es-gaum	0.02	-0.64	0.03	+0.14	0.49	+0.14	6.69	+4.97	3.24	+0.62	10.21	+3.62	12.81	-2.95	9.76	+3.45	8.32	+3.68	5.99	-0.40	0.44	-1.67	0.02	-0.10	58.05	+9.32	
Nagpur	0.07	+0.42	1.04	+0.77	0.09	+0.38	2.46	+2.15	0.58	-0.22	5.99	-2.75	7.97	-6.76	13.70	+3.45	3.92	-6.21	3.92	-2.05	0	-0.90	0	-0.48	37.62	-13.13	
Bellary	0	-0.13	1.80	+0.22	0	-0.54	0.77	+0.19	2.77	+1.07	3.99	+2.14	0.66	-1.32	0.04	-1.68	3.64	-0.45	3.97	-2.05	0	-0.90	0	-0.48	37.62	-13.13	
Bangalore	0	-0.10	3.11	+3.00	0	-0.54	0.77	+0.19	2.77	+1.07	3.99	+2.14	0.66	-1.32	0.04	-1.68	3.64	-0.45	3.97	-2.05	0	-0.90	0	-0.48	37.62	-13.13	
Bangalore	0.72	-0.17	2.31	+2.03	0.03	-0.36	0	-0.62	0.60	-2.66	0.38	-1.73	2.82	+2.71	2.82	-2.98	12.54	+7.82	4.74	-2.41	+1.47	-2.12	+0.43	57.00	+1.21		
Rangoon	0	-0.17	1.79	+1.65	0.12	-0.16	0.52	-1.31	14.97	+3.65	17.04	-0.47	26.54	+4.86	12.8	-5.35	13.58	-2.46	8.87	-2.13	14.67	+1.71	+8.05	39.84	+10.68		
Akyab	0.37	+0.29	0.38	+0.27	0	-0.42	0	-1.68	12.85	+0.55	47.05	+3.66	56.63	+5.69	42.89	+1.63	24.38	+2.34	15.78	+5.34	4.08	+1.14	0.43	-0.27	204.44	+17.54	

A.—Commands.	Years.	Average strength,*	RATIO PER MILLE OF STRENGTH.											
			Admissions into hospital.	Constantly sick.	Deaths.	Invaliding.	DEATHS FROM							
							Cholera.	Small-pox.	Elastic fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Abscess of the liver.
Bengal Command	1895-1900	20,573	1,264	92	17'78	36	1'17	'04	2'56	'93	'71	'41	1'08	1'03
	1900	15,935	1,075	70	14'40	33	'95	'04	3'04	'74	'74	'26	1'00	1'05
	1901	19,000	1,090	62	12'95	37	'37	'16	2'50	'63	'47	'37	1'47	1'79
Punjab Command	1895-1900	17,800	1,309	77	18'00	28	'30	'07	8'63	1'13	'57	1'08	'81	'99
	1900	10,591	1,085	65	13'02	27	1'15	'00	4'35	'78	'54	'71	'60	'69
	1901	16,131	1,099	63	12'90	35	'00	'00	4'99	'70	'67	1'03	1'20	'85
Madras Command	1895-1900	12,211	1,301	62	11'58	41	'82	'03	3'80	'43	'41	'30	'75	1'20
	1900	9,974	1,218	82	10'53	46	2'10	'00	4'71	'70	'30	'30	1'00	1'30
	1901	10,282	1,278	79	9'34	43	'19	'00	1'75	'29	'19	'49	'19	1'59
Bombay Command	1895-1900	15,140	1,328	82	15'13	29	'78	'03	6'79	'41	'58	'46	'61	1'24
	1900	15,011	1,211	75	12'78	33	1'99	'20	6'71	'40	'60	'27	'86	1'79
	1901	15,125	1,149	69	13'16	42	'20	'00	3'59	'60	'40	'33	'73	1'46
India	1895-1900	66,074	1,230	85	12'98	33	'73	'05	7'13	'79	'58	'59	1'10	1'36
	1900	60,553	1,143	72	14'82	33	1'45	'05	4'77	'85	'58	'40	'86	1'57
	1901	60,535	1,104	67	12'35	39	'20	'05	3'31	'61	'46	'50	'97	1'36
1895-1900		68,224	1,392	87	15'21	39	1'05	'05	6'46	1'78	'55	'60	'87	1'24

* The quinquennial and decennial ratios are, of course, worked on the total strength of the last year and decade respectively.

B.—Groups.	Years.	Average strength,†	RATIO PER MILLE OF STRENGTH.												
			Admissions.	Constantly sick.	ADMISSIONS FROM										Venereal cases.
					Infantaria.	Cholera.	Small-pox.	Elastic fever.	Intermittent fever.	Remittent fever.	Simple continued fever.	Pneumonia.	Dysentery.		
Group I.—Burma Coast and Bay Islands.	1895-1900	1,299	1,337	93	35'4	'1	'2	8'4	145'9	5'4	86'5	2'1	55'2	490'2	
	1900	1,047	1,273	79	14'3	'0	'0	8'0	207'3	'0	18'1	1'0	43'0	490'8	
	1901	1,049	1,273	67	59'1	'0	'0	'0	225'0	'0	7'6	1'0	44'8	476'6	
" II.—Burma Inland	1895-1900	2,572	1,516	95	6'9	'4	'1	4'7	317'7	24'7	48'6	1'8	31'0	481'3	
	1900	172'3	1,072	103	'0	'0	'0	2'3	82'7	18'8	2'3	3'5	32'1	309'9	
	1901	19'6	1,072	97	'0	'0	'0	4'3	795'4	9'4	'0	0'8	20'9	305'9	
" IV.—Bengal and Orissa	1895-1900	2,269	1,501	80	5'0	'7	'0	11'1	425'4	20'8	19'8	2'2	63'0	447'1	
	1900	2,153	1,356	71	50'6	'4	'0	6'3	403'2	53'7	27'9	10'5	57'1	281'0	
	1901	2,025	1,329	75	1'5	'0	'0	7'4	248'4	15'3	4'0	2'0	85'9	370'9	
" V.—Gangetic Plain and Chhota Nagpur.	1895-1900	6,093	1,424	100	9'0	6'1	'6	20'2	253'1	6'1	47'4	2'1	31'3	539'5	
	1900	5,768	1,057	70	4'9	'2	'2	19'0	218'4	8'0	65'8	3'1	20'7	287'5	
	1901	6,160	928	68	5'7	'8	'2	11'0	229'4	1'9	37'8	2'8	19'3	219'6	
" VI.—Upper Sub-Himalaya	1895-1900	12,215	1,497	99	2'6	1'2	'5	21'0	238'7	10'7	22'3	5'6	22'0	425'7	
	1900	11,105	1,244	74	'8	2'0	'3	12'3	241'2	8'0	12'3	4'9	21'1	212'9	
	1901	11,045	1,179	69	4'4	'0	'0	14'0	325'7	6'9	7'8	5'2	18'7	253'0	
" VII.—North-Western Frontier, Indus Valley, and North-Western Rajasthan.	1895-1900	4,741	1,654	86	3'7	1'2	'4	19'5	691'0	46'7	20'4	7'0	19'7	310'3	
	1900	4,618	1,173	66	'0	'2	'2	14'7	372'9	21'4	16'2	8'0	14'0	240'3	
	1901	4,458	1,041	62	12'5	'0	'1	11'7	289'9	6'1	54'1	3'8	9'4	217'9	
" VIII.—South-Eastern Rajasthan, Central India, and Gujarat.	1895-1900	6,239	1,614	99	5'5	1'7	'0	32'2	223'3	10'3	41'1	2'5	22'4	501'4	
	1900	6,003	1,397	89	1'0	3'5	'7	25'2	351'5	10'0	18'7	4'0	34'3	413'9	
	1901	5,142	1,412	85	9'9	'4	'2	25'4	491'4	19'7	42'3	2'8	33'2	313'1	
" IX.—Deccan	1895-1900	9,574	1,271	61	10'8	1'2	'5	21'5	247'5	6'0	31'8	2'2	30'4	461'1	
	1900	8,359	1,161	74	2'1	4'1	'8	20'5	202'0	9'8	48'1	1'0	37'0	357'0	
	1901	8,630	1,203	79	8'1	'3	'0	17'0	220'7	2'9	41'1	2'3	22'2	408'9	
" X.—Western Coast	1895-1900	1,513	1,101	77	'8	'1	'2	7'3	149'6	7'4	74'0	1'7	16'7	406'8	
	1900	1,401	781	53	2'4	'7	'3	5'4	124'1	3'4	14'3	1'3	20'2	261'6	
	1901	1,552	851	54	2'0	'0	'0	'0	200'3	3'9	12'2	3'2	13'5	216'5	
" XI.—Southern India	1895-1900	3,271	1,254	83	6'0	'4	'2	16'0	123'3	6'1	54'6	2'5	33'2	457'7	
	1900	2,669	1,206	72	3'9	'5	'0	5'3	277'4	15'5	22'2	1'0	19'8	390'0	
	1901	2,662	1,063	59	6'0	'8	'0	3'8	127'7	7'1	80'0	1'1	20'7	349'1	
" XII.—Hill Stations	1895-1900	8,279	1,155	76	6'8	'8	'0	33'8	233'1	8'9	16'7	5'1	18'3	325'0	
	1900	8,871	721	53	1'2	'0	'0	24'1	105'5	6'6	8'5	3'2	12'2	230'9	
	1901	8,692	781	49	13'6	'0	'0	12'0	122'9	3'2	3'2	6'3	12'5	212'8	
" XIII.—Hill Convalescent Depôts and Sanatoria.	1895-1900	3,276	1,200	85	7'2	'0	'1	15'8	225'7	6'7	13'0	3'7	23'8	351'3	
	1900	3,247	1,128	79	3'4	'0	'3	10'2	153'0	6'2	13'0	4'3	18'2	219'7	
	1901	3,124	1,203	81	20'1	'0	'0	10'4	434'7	3'5	10'1	4'7	17'9	209'9	
India	1895-1900	68,224	1,399	87	6'8	1'5	'4	24'2	346'1	14'6	35'4	3'8	29'6	431'0	
	1900	60,553	1,143	72	2'9	1'8	'0	16'0	308'5	12'7	24'4	3'7	25'8	325'1	
	1901	60,535	1,104	67	8'9	'2	'3	12'8	202'2	6'3	21'4	4'0	21'3	270'0	

† The decennial ratios are, of course, worked on the total strength of the decade.

C.—Admission and death rates from enteric fever in stations of over 1,000 strength.

Stations.	1901.		DECENNIAL 1891-1900.		Stations.	1901.		DECENNIAL 1891-1900.	
	Admission-rate per 1,000.	Death-rate per 1,000.	Admission-rate per 1,000.	Death-rate per 1,000.		Admission-rate per 1,000.	Death-rate per 1,000.	Admission-rate per 1,000.	Death-rate per 1,000.
Mhow ...	37·3	4·28	30·9	7·52	Meerut ...	13·3	6·32	34·8	10·45
Ferozepore ...	22·1	13·46	14·4	6·73	Quetta ...	12·3	4·09	33·0	7·60
Umballa ...	19·6	8·17	33·1	9·07	Rawalpindi ...	10·3	1·91	29·2	7·74
Peshawar ...	18·7	8·72	37·7	13·77	Poona ...	8·6	3·35	18·9	5·71
Lucknow ...	16·6	3·43	40·0	10·09	Belgam ...	6·4	·91	3·9	1·43
Secunderabad ...	16·0	3·77	23·2	5·52	Colaba (Bombay) ...	·8	...	4·6	1·80
Aden ...	13·9	3·96	4·9	2·19	Fort William (Calcutta) ...	...	...	5·5	1·65
Allahabad ...	13·6	1·82	37·0	9·70					

Period.	D.—OFFICERS.				E.—WOMEN.				F.—CHILDREN.			
	Average annual strength.*	Admission-rate per 1,000.	Constantly sick-rate per 1,000.	Death-rate per 1,000.	Average annual strength.*	Admission-rate per 1,000.	Constantly sick-rate per 1,000.	Death-rate per 1,000.	Average annual strength.*	Admission-rate per 1,000.	Constantly sick-rate per 1,000.	Death-rate per 1,000.
1891-1900 ...	2,016	858·9	† 130·1	15·94	2,130	792·6	35·5	16·13	5,669	587·3	26·1	44·8
1900 ...	1,380	812·9	30·6	11·80	2,003	732·8	25·4	17·34	5,376	639·0	29·4	45·8
1901 ...	1,799	830·5	30·9	11·11	2,129	714·6	33·2	12·83	5,069	510·0	25·0	32·9

* The decennial ratios are, of course, worked on the total strength of the decade.

† For two years only.

Appendix to Section III.—Native Troops.

G.—ENTERIC FEVER.	1891-1900.		1901.	
	Admission-rate per 1,000.	Death-rate per 1,000.	Admission-rate per 1,000.	Death-rate per 1,000.
European troops ...	24·2	6·46	12·8	3·32
Native troops ...	·3	·09	·2	·12
Gurkhas only ...	1·4	·38	·3	·20
Prisoners ...	·3	·12	·3	·17

H.—TUBERCLE OF THE LUNGS.	I.—VENEREAL.		
	Admission-rate per 1,000.	Death-rate per 1,000.	Admission-rate per 1,000.
Bengal and Punjab Commands ...	5·5	1·08	24·1
Gurkha Regiments ...	13·1	3·95	52·2

J.—INFLUENZA.	K.—PNEUMONIA.			
	1891-1900.		1901.	
	Admission-rate per 1,000.	Death-rate per 1,000.	Admission-rate per 1,000.	Death-rate per 1,000.
European troops ...	6·8	·03	8·9	·02
Native troops ...	8·1	·12	9·7	·02
Prisoners ...	23·8	·38	25·4	·11

L.—Commands.	Years.	Average strength.*	RATIO PER MILLE OF STRENGTH.											Mortality including absent deaths.	
			Admissions into hospital.	Constantly sick.	DEATHS FROM										All causes.
					Cholera.	Small-pox.	Etiotic fever.	Remittent fever.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Abscess of the liver.	All causes.		
al Command	1896-1900	25,611	267	31	1'04	'04	'17	'86	1'10	2'07	'43	'04	9'65	14'56	
	1900	25,370	717	31	1'32	...	'45	1'13	1'05	1'99	'49	'04	10'46	16'77	
	1901	25,300	667	37	'40	...	'15	'80	1'11	1'30	'31	'08	8'44	12'71	
ab Command	1896-1900	40,866	819	30	1'03	'04	'10	1'58	'06	5'45	'41	'04	13'53	18'51	
	1900	42,311	790	28	4'28	...	'08	1'30	'07	4'30	'45	'05	14'72	19'10	
	1901	46,050	944	30	'07	...	'22	1'72	1'08	3'87	'17	'02	12'03	15'61	
as Command	1896-1900	21,967	684	31	1'28	'03	'03	'70	'07	1'42	'35	'05	9'73	13'05	
	1900	20,497	690	30	3'69	'05	'05	1'18	'49	1'91	'30	'05	12'59	15'97	
	1901	15,021	699	23	'21	'11	...	'86	'48	'81	'38	'05	8'50	12'24	
ay Command	1896-1900	25,096	837	29	'02	'06	'06	1'10	'41	3'13	'61	'11	11'57	14'19	
	1900	24,908	957	25	3'49	'04	'12	2'13	'56	4'38	'37	'08	18'71	23'59	
	1901	23,428	933	35	...	'04	'04	1'38	'71	4'91	'80	'13	12'93	16'75	
erabad Contingent	1896-1900	6,520	516	19	1'16	'06	...	'70	'18	2'63	'21	'06	7'54	9'19	
	1900	6,260	561	22	3'83	'32	...	'32	'32	4'15	'16	...	12'02	14'38	
	1901	5,926	543	21	...	...	...	'51	...	1'03	'51	...	4'81	5'49
...	1896-1900	127,723	281	30	1'03	'04	'09	1'14	'71	3'36	'51	'06	11'81	15'69	
	1900	123,453	285	30	3'16	'03	'15	1'34	'28	3'32	'03	'05	14'04	18'57	
	1901	122,806	279	30	'15	'03	'12	1'35	'84	2'72	'28	'06	10'08	13'99	
...	1896-1900	127,666	282	32	1'11	'03	'09	1'25	'61	3'24	'59	'06	11'22	16'62	

* The quinquennial and decennial ratios are, of course, worked on the total strength of the lustrum and decade respectively.

M.—Groups.	Years.	Average strength.†	RATIO PER MILLE OF STRENGTH.											
			Admissions.	Constantly sick.	ADMISSIONS FROM									Venereal diseases.
					Influenza.	Cholera.	Small-pox.	Etiotic fever.	Intermittent fever.	Remittent fever.	Simple continued fever.	Pneumonia.	Dysentery.	
I.—Burma Coast and Islands.	1891-1900	1,891	794	27	2'7	'1	'2	...	195'2	6'6	4'3	5'0	65'4	15'3
	1900	1,400	275	39	...	...	...	...	166'3	22'0	'7	2'8	66'5	8'6
	1901	1,452	545	26	2'1	...	...	...	97'1	9'0	2'1	1'4	63'4	68'9
II.—Burma Inland	1891-1900	6,083	1,165	50	2'9	1'7	'1	'1	576'6	10'2	7'2	4'7	21'5	47'8
	1900	4,123	1,038	34	...	...	'5	...	618'5	4'4	'2	2'2	41'4	30'6
	1901	4,084	1,214	35	...	...	...	...	114'0	6'6	32'1	2'0	34'8	27'4
III.—Assam	1891-1900	2,003	1,200	51	9'2	3'0	'4	3'8	512'1	10'5	6'6	9'4	100'0	21'2
	1900	1,408	714	38	...	'7	...	...	380'3	6'0	...	6'0	97'5	26'0
	1901	1,172	1,082	46	'7	...	...	4'8	57'1	13'6	...	3'4	46'2	17'0
IV.—Bengal and Orissa	1891-1900	2,035	1,120	44	4'7	'4	'3	'2	511'2	18'0	6'7	5'0	85'1	35'6
	1900	2,395	1,157	45	'4	'3	'3	'1	651'1	7'0	...	5'1	102'1	41'1
	1901	2,187	854	42	...	'9	'9	...	411'0	24'0	...	4'4	41'1	31'9
V.—Gangetic Plain and Chutia Nagpur.	1891-1900	6,463	668	26	2'8	1'6	'3	'3	215'4	12'5	2'8	7'6	47'3	33'7
	1900	5,655	716	31	6'9	2'5	'2	'2	220'3	6'2	'4	10'6	42'6	28'6
	1901	5,564	625	26	11'9	2'9	'5	'4	191'2	5'0	'2	8'6	43'2	22'1
VI.—Upper Sub-Himalaya	1891-1900	15,166	712	29	2'9	1'0	'6	'2	280'8	17'9	3'1	15'0	29'8	33'7
	1900	15,316	676	26	'2	'9	'4	'5	399'1	13'3	'7	13'3	35'8	25'4
	1901	15,263	657	25	1'5	'3	'3	'3	243'1	12'8	'3	18'0	31'4	24'3
VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana.	1891-1900	15,459	1,102	36	8'9	2'3	'6	'2	567'5	22'2	10'3	20'4	55'5	22'5
	1900	15,261	928	32	...	15'6	'8	'1	384'3	21'0	'5	24'6	52'5	16'5
	1901	16,951	937	32	1'7	'1	'9	'1	420'6	16'9	1'0	14'6	53'7	18'8
VIII.—South-Eastern Rajputana, Central India, and Gujarat.	1891-1900	12,679	814	27	6'0	1'6	'7	'1	337'5	11'3	12'3	12'1	29'9	41'5
	1900	11,162	1,017	27	1'3	8'6	'7	'1	464'7	22'1	4'2	15'5	37'6	97'6
	1901	10,994	1,024	27	8'1	...	'4	...	520'8	13'2	10'7	15'3	29'2	59'9
IX.—Deccan	1891-1900	19,504	726	27	2'0	1'9	1'3	'1	297'6	11'2	11'6	6'3	31'3	43'0
	1900	12,670	717	28	1'4	6'0	1'9	'1	350'0	10'5	11'5	9'6	40'6	65'6
	1901	14,408	602	26	4'7	...	'3	'1	224'1	6'7	6'8	6'4	18'5	58'4
X.—Western Coast	1891-1900	2,055	714	30	2'2	'3	'5	'4	159'9	14'9	26'8	6'7	60'5	51'3
	1900	2,435	702	32	2'1	1'6	'4	...	108'5	4'1	3'7	18'9	99'8	31'4
	1901	2,021	842	33	...	...	'5	...	281'5	20'3	10'9	12'4	22'9	69'3
XI.—Southern India	1891-1900	8,244	655	29	3'5	2'5	'6	'1	122'0	3'6	21'7	7'0	20'1	43'4
	1900	6,764	657	23	1'0	4'0	'1	'3	165'4	3'8	14'3	13'9	19'7	50'9
	1901	6,426	655	21	'2	1'1	1'7	...	180'4	3'7	3'7	8'9	24'9	47'7
XII.—Hill Stations	1891-1900	17,027	1,075	40	21'3	1'0	'3	'6	470'0	24'6	8'4	20'5	53'3	40'6
	1900	10,835	826	34	'7	3'0	'2	'7	310'1	22'1	'7	21'7	60'3	45'6
	1901	20,926	945	35	15'0	'1	'4	'4	391'3	23'1	1'4	18'6	49'9	31'8
...	1891-1900	127,666	282	32	8'1	1'8	'5	'3	245'8	15'2	9'1	14'4	48'6	37'2
	1900	123,453	285	30	'9	5'2	'6	'4	220'8	14'0	3'5	14'6	50'4	42'8
	1901	122,806	289	30	9'7	'3	'4	'2	255'4	14'3	4'9	12'7	43'2	34'3

† The decennial ratios are, of course, worked on the total strength of the decade.

N.—Administrations.	Years.	Average strength. ‡	RATIO PER MILLE OF STRENGTH.*											
			Admissions.	Constantly sick.	DEATHS FROM									
					Cholera.	Small-pox.	Remittent fever.	Tubercle of the lung.	Pneumonia.	Other respiratory disease.	Dysentery.	Diarrhoea.	Anaemia and debility.	
Andamans ...	1896-1900	10,975	1,455	51	...	...	3'17	5'50	2'28	1'02	10'04	2'25	2'00	31
	1900	11,570	2,039	54	...	...	4'02	5'70	4'75	1'04	9'97	4'33	3'31	48
	1901	12,153	1,653	51	...	...	2'97	0'57	4'10	'95	11'58	2'95	'68	35
Burma ...	1896-1900	13,127	625	37	2'00	'14	'44	3'84	2'94	'43	4'37	'90	'45	36
	1900	12,515	555	28	1'25	'15	'40	4'87	1'50	'34	3'51	'80	'65	31
	1901	11,540	551	25	1'44	'...	'17	4'34	1'18	'25	2'28	'47	'17	11
Assam ...	1896-1900	1,274	651	49	4'07	...	2'65	1'40	2'65	1'71	8'88	4'05	3'38	40
	1900	1,314	769	37	'75	...	1'53	2'25	3'04	'76	6'85	'70	1'51	25
	1901	1,338	1,022	45	'73	...	2'99	...	'73	'75	5'95	2'99	3'74	22
Bengal ...	1896-1900	18,121	1,057	37	2'40	'03	'05	3'77	3'50	'91	7'70	1'57	'05	36
	1900	19,701	1,155	40	4'44	...	'82	5'05	4'29	1'22	9'44	2'50	1'22	25
	1901	20,149	1,199	39	'89	...	'10	3'33	2'83	'74	8'14	1'90	'40	22
United Provinces of Agra and Oudh ...	1896-1900	27,123	713	45	'41	'07	'47	3'71	4'85	1'00	6'00	2'04	2'65	22
	1900	27,481	794	35	'31	'03	'32	3'73	3'04	'55	4'47	1'20	'91	21
	1901	26,311	840	40	1'13	...	'07	3'03	2'45	1'19	5'97	1'23	'48	21
Panjab (a) ...	1896-1900	12,071	1,251	33	'23	'10	'55	2'83	4'87	'74	3'74	'90	'36	21
	1900	14,155	1,170	38	'01	'07	'21	3'91	5'35	'70	4'79	'70	'40	21
	1901	12,459	1,251	35	...	...	'45	3'04	5'12	'45	4'68	1'04	1'11	21
North-West Frontier Province ...	1896-1900	1,175	1,225	41	...	...	1'87	'63	4'74	1'02	2'21	1'97	...	15
	1900	1,284	812	32	...	...	'74	1'45	1'28	...	1'45	2'22	...	14
	1901	1,218	953	30	...	...	4'01	...	4'81	'80	4'01	...	...	11
Bombay ...	1896-1900	8,759	773	29	3'27	'09	2'44	2'74	6'11	1'35	3'77	3'04	1'45	21
	1900	11,495	784	28	5'94	'35	3'31	3'65	6'70	1'30	5'21	4'51	2'87	21
	1901	10,270	994	37	...	'29	1'59	3'80	10'02	1'25	2'03	1'85	1'45	21
Bihar and Secunderabad ...	1896-1900	1,850	617	19	1'01	...	'26	1'57	5'30	4'10	6'75	2'30	3'25	21
	1900	1,927	913	25	6'75	...	...	2'53	11'42	0'43	20'75	9'85	2'08	21
	1901	1,483	670	20	...	...	'67	2'03	6'74	3'37	3'02	'67	2'70	21
Central Provinces ...	1896-1900	5,451	1,771	45	3'11	'25	1'23	4'13	5'30	1'40	30'49	9'75	5'01	21
	1900	5,735	616	30	7'68	'87	1'40	4'25	4'02	1'95	19'99	9'43	5'76	21
	1901	4,802	814	29	...	...	...	3'59	3'13	1'40	7'91	4'79	2'39	21
Madras ...	1896-1900	8,070	625	27	5'30	'11	'14	3'65	2'37	'54	4'10	'05	'24	21
	1900	10,135	521	22	1'97	'10	'20	3'65	2'27	'20	3'85	'20	'20	21
	1901	10,430	593	25	3'54	...	'10	4'11	2'10	'10	2'87	...	'20	21
India†	1896-1900	114,703	981	35	1'63	'08	'03	3'35	4'02	'64	7'04	2'10	1'67	21
	1900	121,811	977	35	2'28	'11	'12	3'93	4'22	'80	6'70	2'45	1'58	21
	1901	117,203	981	37	'50	'09	'05	3'85	3'61	'93	5'85	1'34	'71	21
1891-1900	108,505	1,021	39	1'99	'05	'120	2'95	4'27	1'69	6'81	2'15	1'75	21	

* Excluding subsidiary jails.

† Including Ajmer, Quetta, and Merara.

(a) Excluding jails transferred to N. W. F. Province.

O.—Groups.	Year.	Average strength. ‡	RATIO PER MILLE OF STRENGTH.*										
			Admissions.	Constantly sick.	ADMISSIONS FROM								
					Influenza.	Cholera.	Small-pox.	Fetetic fever.	Intermittent fever.	Remittent fever.	Simple continued fever.	Pneumonia.	
Group I.—Burma Coast and Bay Islands ...	1896-1900	10,571	1,217	44	0'6	1'5	'2	'1	55'2	12'5	27'0	5'8	...
	1900	10,770	1,143	44	36'3	1'7	'2	'3	33'3	12'1	5'6	'75	...
	1901	10,945	1,217	42	2'7	1'1	...	'4	62'3	15'4	3'4	9'0	...
" II.—Burma Island ...	1896-1900	4,530	479	23	3'9	2'8	'4	'3	127'0	7'4	6'6	9'0	...
	1900	4,346	475	24	...	'5	'9	'5	125'9	3'2	3'9	6'7	...
	1901	4,975	481	22	...	'10	...	'5	122'9	1'7	1'7	10'5	...
" III.—Assam ...	1896-1900	1,213	621	49	4'0	7'1	...	...	327'8	11'4	1'1	8'2	...
	1900	1,217	710	37	11'7	'8	...	...	274'9	6'3	'8	10'3	...
	1901	1,268	1,021	43	61'9	'8	...	'3	372'3	5'4	8'4	2'3	...
" IV.—Bengal and Orissa ...	1896-1900	11,200	1,701	39	38'8	2'5	'1	'1	267'7	11'0	9'0	18'6	...
	1900	11,701	1,213	42	47'7	5'6	'1	'1	242'9	5'7	139'3	13'3	...
	1901	12,457	1,121	42	28'7	1'1	'4	'1	189'6	3'1	42'2	9'4	...
" V.—Gangetic Plain and Chittla Nagpur ...	1896-1900	25,575	914	41	28'1	2'6	1'3	'2	282'1	8'7	13'4	15'4	...
	1900	26,341	801	35	9'4	'0	'0	'0	212'7	4'1	27'0	14'3	...
	1901	27,150	850	35	45'0	2'5	'1	'4	257'2	1'0	4'3	11'5	...
" VI.—Upper Sub-Himalaya ...	1896-1900	14,181	1,445	36	31'6	'6	'5	'1	511'9	4'8	6'5	25'9	...
	1900	15,132	1,110	31	22'5	2'1	'6	'2	520'9	3'7	3'5	17'7	...
	1901	14,599	1,164	39	43'2	'4	'1	'4	537'2	1'6	4'9	19'3	...
" VII.—North-Western Frontier, Indus Valley, and North-Western Rajputana ...	1896-1900	5,288	974	31	8'2	...	1'0	'2	403'1	7'2	1'2	26'9	...
	1900	5,259	931	23	3'6	'1	1'0	'2	370'4	10'0	1'2	19'6	...
	1901	5,115	925	30	'4	...	2'9	'2	375'8	1'8	1'5	25'4	...
" VIII.—South-Eastern Rajputana, Central India, and Gujarat ...	1896-1900	5,998	715	40	12'1	'5	1'2	...	354'9	1'6	1'1	31'6	...
	1900	6,471	654	26	3'7	1'5	3'1	...	245'7	1'4	...	24'3	...
	1901	5,521	919	46	5'0	...	2'0	'4	245'5	1'1	'4	24'6	...
" IX.—Deccan ...	1896-1900	10,770	668	25	13'0	4'9	1'9	'4	268'4	4'3	5'7	14'9	...
	1900	12,251	662	23	5'9	11'6	2'8	'2	371'0	3'7	2'2	15'5	...
	1901	10,530	1,028	28	13'5	'1	'7	'3	494'0	6'3	1'8	14'5	...
" X.—Western Coast ...	1896-1900	2,607	697	30	1'8	13'6	1'5	1'8	130'4	31'9	18'7	7'7	...
	1900	3,150	702	25	...	20'3	4'1	'2	171'2	23'7	23'0	8'1	...
	1901	3,218	521	25	5'9	'5	1'2	'6	169'9	13'1	17'8	11'8	...
" XI.—Southern India ...	1896-1900	7,048	617	27	5'7	14'1	'5	'5	111'4	'8	65'3	8'3	...
	1900	6,144	515	25	...	2'7	'5	'4	75'5	'1	61'7	10'0	...
	1901	6,471	611	25	17'1	10'0	...	'1	148'9	1'6	49'4	10'4	...
" XII.—Hills ...	1896-1900	641	1,015	31	11'3	4'7	5'3	'6	205'2	8'1	47'9	21'2	...
	1900	724	897	31	5'5	15'2	...	...	217'9	8'3	91'9	19'3	...
	1901	640	875	32	23'4	6'3	...	...	227'5	1'6	10'9	15'6	...
India†	1896-1900	114,703	981	35	10'5	3'2	'8	'2	399'8	8'2	24'0	15'9	...
	1900	121,811	977	35	15'9	4'1	1'0	'3	357'9	6'0	25'3	14'6	...
	1901	117,203	981	37	25'4	1'8	'5	'3	377'3	4'7	10'9	14'2	...

* Excluding subsidiary jails.

† Including Aden.

‡ The quinquennial and decennial ratios are, of course, worked on the total strength of the instrument and decade respectively.

P.—Causes of admission.	Years.	Years.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Cholera	1897	49	51	86	162	85	8	27	5	20	274	157	74	687
	1898	94	239	272	631	338	301	41	146	45	6	30	10	2,243
	1899	60	230	470	373	280	23	17	13	31	48	49	48	1,622
	1900	70	140	147	249	538	107	281	192	56	48	123	98	2,059
	1901	56	127	383	1,247	677	145	44	45	38	51	83	76	2,979
Total ...	1897-1901	335	797	1,648	2,632	1,018	484	421	401	190	427	462	246	9,990
Typhoid	1897	...	10	153	280	44	50	145	95	55	4	7	6	659
	1898	...	3	7	1	2	5	4	...	...	1	...	...	23
	1899	...	3	1	...	8	25	19	4	...	2	...	...	101
	1900	8	8	16	24	68	62	138	113	43	4	18	3	595
	1901	46	...	2	2	17	6	43	38	35	5	3	14	211
Total ...	1897-1901	54	24	270	325	159	141	333	251	135	43	30	25	1,799
Enteric Fever	1897	3	...	3	1	3	1	2	...	2	15	2	2	34
	1898	1	1	3	3	1	1	...	2	1	3	3	1	20
	1899	1	2	1	...	...	3	5	3	...	6	...	...	21
	1900	1	...	2	1	...	4	7	3	6	5	5	...	34
	1901	3	...	4	5	7	5	6	4	4	2	1	...	41
Total ...	1897-1901	9	3	13	10	11	14	20	12	13	31	11	3	150
Intermittent Fever	1897	1,073	1,811	2,090	2,377	2,705	3,191	3,605	3,767	5,989	7,004	5,068	4,033	44,110
	1898	2,521	1,798	2,321	2,558	2,791	3,225	3,310	3,774	4,298	4,777	3,823	2,807	35,017
	1899	2,416	2,051	2,931	3,040	3,208	3,540	4,172	4,184	3,454	3,378	3,014	2,336	37,779
	1900	1,980	2,145	2,407	3,039	2,714	3,378	3,271	4,080	4,599	6,235	5,160	4,134	43,594
	1901	3,735	2,477	3,391	3,510	3,73	4,795	3,510	3,771	4,441	4,822	4,220	3,104	44,220
Total ...	1897-1901	12,145	10,274	13,741	14,524	15,315	17,393	18,218	19,415	22,821	26,219	21,285	16,474	207,727
Remittent Fever	1897	130	121	93	97	76	64	88	157	81	69	4	54	1,083
	1898	30	54	61	75	51	48	62	81	57	52	45	45	670
	1899	37	27	37	33	81	114	91	87	77	70	41	30	734
	1900	45	41	55	66	71	62	72	133	57	44	47	22	739
	1901	24	25	45	48	62	53	44	40	55	64	58	37	555
Total ...	1897-1901	275	268	296	319	341	341	261	498	327	299	239	207	3,772
Simple continued Fever	1897	173	187	301	183	250	315	237	252	251	257	281	288	2,890
	1898	205	230	220	216	217	404	217	198	197	191	175	177	2,668
	1899	175	124	112	107	100	140	180	205	171	215	364	300	2,263
	1900	147	115	145	217	243	200	200	435	445	324	228	187	3,086
	1901	107	130	184	114	146	162	100	50	53	54	72	41	1,279
Total ...	1897-1901	863	786	875	847	1,065	1,221	1,054	1,146	1,117	1,082	1,140	993	12,195
Pneumonia	1897	245	215	228	141	110	95	60	60	118	121	163	223	1,842
	1898	290	150	231	140	120	122	88	70	77	105	182	195	1,735
	1899	212	163	154	141	100	66	62	67	36	32	148	164	1,535
	1900	221	204	217	145	140	119	116	92	94	105	144	178	1,775
	1901	155	138	178	129	136	83	85	89	99	143	156	269	1,660
Total ...	1897-1901	1,005	871	1,010	705	615	514	472	431	474	606	793	1,733	8,613
Dysentery	1897	518	628	845	664	881	984	1,479	1,741	1,566	1,513	1,232	1,122	12,470
	1898	740	520	575	638	759	862	1,055	1,208	1,166	957	984	814	16,208
	1899	662	560	612	726	933	947	1,207	1,312	1,060	912	915	846	10,703
	1900	659	613	960	941	1,121	1,105	1,548	1,688	1,635	1,363	1,157	1,210	14,612
	1901	830	640	755	821	1,062	1,025	1,332	1,182	1,273	1,202	1,029	986	17,659
Total ...	1897-1901	3,487	2,961	3,987	4,011	4,727	4,924	6,662	7,921	6,721	5,047	5,716	4,978	61,842

Q.—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.	European troops.	Native troops.	Prisoners.
Cholera ... ..	...	...	...	16	12	72	1.6	1.4	3.4
Typhoid	3.90	2.39	1.69	49	30	21	21.4	23.3	6.3
Diarrhoea ... ..	...	...	...	11	5	83	7.9	4.4	16.8
Enteric diseases ... ..	...	...	...	29	...	71	...	...	...
Septicæmia and debility ... ..	...	...	...	6	16	79	...	1.3	2.6
Respiratory diseases ... ..	...	...	...	8	38	54	5.4	30.0	16.9
Tubercle of the lungs ... ..	...	...	...	9	16	75	3.7	7.0	14.4
All other causes	6.08	3.49	7.93	35	20	45	49.5	27.7	29.5
All causes	12.38	10.38	26.87	25	21	54	100.0	100.0	100.0

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

STATEMENT NO. I.—Birth and Death Statistics.

PROVINCE.	Year.	BIRTHS.			NUMBER OF DEATHS.			RATIO OF DEATHS PER 1,000 OF POPULATION.			HIGHEST DEATH-RATE.		LOWEST DEATH-RATE.		M-AN DEATH-RATE DURING PREVIOUS 5 YEARS.			Number of deaths of males to every 100 deaths of females.
		Total number.	Ratio per 1,000 of population.	Mean ratio per 1,000 of population during previous 5 years.	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.	Total.			
Bengal	1900	2,749,583	35'08	37'05	151,015	2,432,721	2,603,756	43'45	30'28	36'53	101'44	55'04	8'47	21'17	33'00	31'17	31'26	113
	1901	2,870,806	38'37	35'74	136,260	2,174,164	2,310,424	37'12	30'72	31'04	152'38	54'81	4'22	19'01	32'99	30'73	30'85	110
Assam	1900	184,427	34'95	30'63	3,651	157,070	161,631	35'62	30'48	30'64	60'94	53'16	14'52	30'57	45'00	35'25	35'44	112'9
	1901	179,289	33'98	31'77	3,206	143,733	146,939	27'74	27'81	27'85	54'26	35'21	14'11	21'53	42'56	35'04	35'19	111'6
United Provinces of Agra and Oudh.	1900	1,892,169	40'34	37'37	125,239	1,523,800	1,450,139	47'13	30'31	31'13	61'21	45'40	20'67	21'08	29'15	31'22	31'70	111'2
	1901	1,972,131	41'35	38'45	144,070	1,200,065	1,445,035	42'87	29'34	30'30	110'90	38'53	18'51	19'26	40'60	32'52	33'09	108'7
Punjab	1900	843,070	41'1	43'8	105,674	870,537	680,311	54'55	45'92	47'69	161'59	93'12	15'00	20'77	33'65	30'14	30'50	105'2
	1901	712,553	35'4	41'1	75,188	651,423	726,611	37'71	35'06	36'13	90'97	51'75	12'32	12'54	35'65	32'04	32'40	105'2
North-West Frontier Province.	1900†	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1901	60,413	29'5	37'1	3,768	35,440	37,208	18'28	19'26	19'16	30'63	26'03	4'17	16'58	33'73	30'82	30'40	113'3
Central Provinces	1900†	303,121	31'90	33'98	48,402	490,832	539,234	59'28	59'51	59'75	180'45	111'64	19'90	20'43	46'18	41'12	41'29	119'4
	1901	275,968	28'83	†	22,290	205,963	227,853	28'49	23'02	23'46	37'04	29'12	14'05	18'74	†	†	†	111'9
Berar.	1900	82,302	31'3	39'4	11,041	204,981	235,022	81'2	81'1	82'7	251'7	108'2	46'2	20'1	43'1	41'8	41'9	115'3
	1901	83,762	30'8	38'2	12,329	62,751	75,080	29'6	27'2	27'6	38'3	29'5	18'3	24'9	51'2	48'1	48'5	104'4
Madras Presidency.	1900	1,040,199	31'8	29'3	83,551	687,298	770,859	31'6	22'6	23'4	58'7	31'9	11'4	15'0	29'4	20'7	21'3	105'5
	1901	935,749	25'1	29'8	94,710	701,430	796,140	32'7	20'4	21'3	141'3	30'0	6'6	10'1	30'5	21'4	22'1	105'1
Coorg	1900	4,542	25'25	23'00	814	5,468	6,303	52'48	34'83	36'42	80'18	40'83	25'73	26'22	41'38	31'22	33'04	120'6
	1901	3,401	18'83	22'00	811	5,779	6,570	53'18	34'05	36'49	81'22	43'89	23'13	26'04	45'67	31'85	33'08	127'2
Bombay Presidency.	1900	505,022	29'57	34'83	125,217	1,082,065	1,218,283	102'33	65'57	70'07	680'63	253'68	12'25	23'52	47'42	30'99	32'01	115'0
	1901	465,647	25'19	32'89	129,794	546,240	685,134	57'85	34'01	37'12	177'37	72'71	7'32	12'46	61'65	38'45	41'30	108'1
Lower Burma	1900	171,183	38'37	32'85	19,497	102,127	122,714	31'70	26'71	27'51	48'82	33'63	16'95	18'62	31'10	21'25	25'14	125'1
	1901	177,865	32'07	34'72	19,000	100,646	120,565	29'09	20'62	21'72	38'42	25'25	16'52	14'71	22'19	25'26	26'17	129'1
Upper Burma	1900	11,430‡	35'81‡	‡	10,221	42,265	53,456	32'81	20'19	21'80	41'21	33'28	15'29	13'37	...	...	...	99'1
	1901‡	11,334	37'66	...	10,010	...	10,010	33'27	...	33'27	35'80	...	16'31	...	...	...	...	111'1
Ajmer-Merwara	1900	7,958	14'67	22'57	19,555	45,512	65,067	157'51	108'83	119'97	357'32	127'55	77'88	60'20	39'29	24'00	27'04	122'8
	1901	7,679	16'10	22'36	5,064	10,724	15,758	39'06	30'91	32'13	62'30	30'04	21'51	12'85	59'55	49'01	51'91	111'2

* Excluding Zamindaries.
† Not available.
‡ Statistics for 13 towns.

STATEMENT NO. II.—Total number of deaths by months.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	RATIO PER 1,000 OF POPULATION.	
														1901.	1900.
Bengal	217,096	175,211	214,418	225,806	164,287	138,241	166,435	147,791	118,356	124,109	192,871	293,882	2,310,424	31'04	26'6
Assam	11,591	10,411	10,675	12,039	13,926	12,747	13,775	12,293	11,570	11,147	12,297	13,546	146,939	27'85	30'6
United Provinces of Agra and Oudh.	94,269	80,764	92,124	100,517	111,686	105,529	107,262	115,080	147,246	172,208	159,543	157,207	1,445,035	30'30	31'7
Punjab	62,074	39,029	36,993	34,418	47,104	47,152	43,729	43,860	69,223	97,635	101,613	102,106	726,611	26'13	47'0
North-West Frontier Province.	5,250	3,121	2,934	2,729	3,167	3,079	2,789	3,075	2,759	3,283	4,220	4,121	30,208	19'16	...
Central Provinces	22,278	19,102	18,791	15,215	15,235	15,133	14,100	16,255	19,078	24,217	22,253	23,066	227,853	23'46	59'3
Berar.	7,263	5,554	5,245	5,490	5,157	3,520	3,859	5,422	7,722	9,326	8,690	7,666	75,080	27'0	82'3
Madras Presidency	70,353	59,169	55,009	52,406	54,155	56,243	62,129	70,615	75,115	73,729	77,727	92,000	796,140	21'3	23'4
Coorg	576	576	471	465	606	645	723	668	520	420	389	470	6,590	36'49	36'4
Bombay Presidency.	57,285	56,520	67,128	52,719	44,153	37,225	40,226	51,828	63,839	73,187	72,261	69,214	685,134	37'12	70'0
	Lower	9,755	8,708	7,078	7,610	7,266	8,475	12,226	12,566	11,229	11,277	11,218	11,699	120,565	21'72	27'0
Upper	847	754	805	773	695	723	893	852	800	845	967	946	10,010	33'27	21'6
Ajmer-Merwara.	3,421	1,510	1,322	1,008	1,071	759	494	662	1,126	1,187	1,444	1,294	12,798	33'13	119'5
TOTAL.	563,451	463,607	513,928	523,226	459,568	430,207	469,920	481,107	524,422	663,271	667,593	778,967	6,606,397	29'46	38'0

‡ Statistics for 13 towns.

STATEMENT NO. III.—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	74,428,193	44'69	10'76	38'57	105'	7'53	...
Assam	5,275,706	44'25	26'28	33'08	107'97	6'13	...
United Provinces of Agra and Oudh	47,691,782	51'28	27'81	41'35	107'73	11'05	...
Punjab	20,108,690	44'1	15'8	35'4	110'1	...	0'7
North-West Frontier Province	2,046,109	33'6	24'7	29'5	123'2	10'3	...
Central Provinces	9,710,566	37'22	20'69	28'83	105'94	5'37	...
Bihar	2,717,346	34'3	28'9	30'8	104'6	3'2	...
Madras Presidency	37,315,611	37'1	16'1	25'1	104'2	3'8	...
Coorg	180,607	28'34	14'50	18'83	98'31	...	17'66
Bombay Presidency	18,481,362	33'43	8'36	25'19	108'56	...	11'93
Surma { Lower	5,546,265	40'68	12'70	32'07	107'	10'	...
{ Upper†	300,969	47'58	23'36	37'66	105'	4'	...
Uttar-Merwara	476,912	17'48	15'69	16'10	119'15	...	17'02

* Statistics for 13 towns.

STATEMENT NO. IV.—Deaths.

Province.	Population under registration.	Area in square miles.	Average population per square mile.	RATIO OF DEATHS PER 1,000 OF POPULATION.			DEATH-RATE BY SEX.	
				Maximum for any one district.	Minimum for any one district.	Mean for the year.	Male.	Female.
Bengal	74,428,193	144,566	515	56'79	20'21	31'04	32'64	29'44
Assam	5,275,706	31,789	166	35'19	21'71	27'85	28'51	27'16
United Provinces of Agra and Oudh	47,691,782	107,164	445	40'35	19'69	30'30	30'59	29'99
Punjab	20,108,690	97,209	207	52'2	19'5	36'1	34'5	38'1
North-West Frontier Province	2,046,109	13,688	149	25'6	16'6	19'2	18'8	19'7
Central Provinces	9,710,566	81,862	119	29'44	18'77	23'46	25'21	21'77
Bihar	2,717,346	19,079	169	30'2	25'2	27'6	27'9	27'4
Madras Presidency	37,315,611	129,239	289	55'5	10'9	21'3	22'2	20'5
Coorg	180,607	1,583	126	43'82	20'35	36'49	36'81	36'09
Bombay Presidency	18,481,362	122,984	150	77'78	13'21	37'12	37'52	36'70
Surma { Lower	5,546,265	77,182	72	33'17	15'77	21'74	23'06	20'24
{ Upper†	300,875	...	...	35'80	10'34	33'27	34'59	31'92
Uttar-Merwara	476,912	2,711	176	34'34	29'04	33'13	33'15	33'10

† Statistics for 13 towns.

STATEMENT NO. V.—Deaths in Towns and Rural Circles compared.

Province.	NUMBER OF REGISTRATION CIRCLES.			POPULATION.			RATIO OF DEATHS PER 1,000 OF POPULATION.		
	Rural.	Town.	Total.	Rural.	Town.	Total.	Rural.	Town.	Total.
Bengal	562	157	719	70,757,481	3,670,712	74,428,193	30'72	37'12	31'04
Assam	67	19	85	5,167,896	107,810	5,275,706	27'81	29'74	27'85
United Provinces of Agra and Oudh	853	436	1,309	44,310,116	3,381,666	47,691,782	29'34	42'87	30'30
Punjab	392	140	532	18,114,729	1,993,961	20,108,690	35'96	37'71	36'13
North-West Frontier Province	...	...	...	1,830,959	206,150	2,046,109	19'26	18'28	19'16
Central Provinces	164	52	216	8,928,138	782,428	9,710,566	23'02	28'49	23'46
Bihar	67	43	110	2,302,032	415,314	2,717,346	27'2	29'6	27'6
Madras Presidency	180	94	274	34,418,498	2,897,113	37,315,611	20'4	32'7	21'3
Coorg	5	5	10	165,358	15,249	180,607	34'95	53'18	36'49
Bombay Presidency	220	63	283	16,065,004	2,416,358	18,481,362	34'01	57'85	37'12
Surma { Lower	200	35	235	4,881,687	664,278	5,546,265	20'62	29'99	21'74
{ Upper†	...	13	13	...	300,875	...	...	33'27	33'27
Uttar-Merwara	17	6	23	347,280	129,632	476,912	30'91	39'06	33'13

† Statistics for 13 towns.

STATEMENT No. VI.—Deaths according to age.

PROVINCE.	RATIO PER 1,000 OF POPULATION.																			
	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	261.72	220.52	44.87	39.15	17.76	14.88	13.97	12.82	17.39	17.11	18.68	17.67	21.44	19.00	27.07	22.29	39.13	35.22	79.09	65.94
Assam	188.60	172.63	35.61	34.77	14.18	11.75	13.33	12.42	17.77	21.03	17.23	19.47	20.15	19.44	25.96	19.97	37.92	30.91	64.63	50.31
United Provinces of Agra and Oudh.	324.43	298.99	54.12	54.50	10.87	9.66	7.41	6.86	10.09	14.72	13.09	15.25	16.19	14.67	22.93	20.40	37.45	31.75	63.26	48.12
Punjab	269.67	279.06	68.21	71.62	15.19	12.12	9.01	12.04	10.10	13.16	12.31	15.07	15.88	18.64	24.81	24.24	40.83	39.41	95.14	103.71
North-West Frontier Province.	156.03	120.51	32.35	30.79	7.46	7.95	4.91	6.18	5.86	7.80	7.91	10.34	10.09	13.04	15.46	16.81	24.60	24.21	44.42	45.11
Central Provinces	318.22	278.30	33.49	28.45	10.34	9.27	6.63	6.23	9.38	8.67	10.26	8.88	14.20	11.08	22.16	14.83	34.88	26.46	88.28	72.71
Berar	337.4	291.0	68.0	61.4	13.5	12.0	6.5	7.4	7.5	8.9	9.0	11.2	12.5	13.2	20.03	17.2	37.5	32.4	94.1	92.5
Madras Presidency	153.0	127.3	27.7	26.1	9.8	8.9	6.9	6.8	9.8	12.2	12.2	11.9	14.4	12.7	20.2	15.6	33.6	28.8	66.7	62.5
Coorg	175.24	172.43	41.71	33.64	13.43	12.95	10.27	9.44	19.71	20.79	33.31	31.83	35.16	38.82	48.27	44.77	75.51	71.15	98.88	75.11
Bombay Presidency.	86.37	...	...	79.78	18.91	19.77	16.20	18.85	18.81	20.45	26.06	...	...	24.34	46.43	...	...	37.52	121.46	118.11
Burma { Lower	71.02	...	...	55.35	11.69	9.44	8.56	7.34	12.51	10.49	13.20	...	...	12.33	21.90	...	...	18.66	51.14	47.11
Burma { Upper* . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer-Merwara	300.15	312.76	78.06	66.35	22.79	20.44	10.72	12.80	15.67	19.11	19.66	19.71	26.29	27.07	37.78	33.28	62.50	58.13	90.83	70.11

* Statistics of 13 towns; ratios not available.

STATEMENT No. VII.—Deaths according to cause.

PROVINCE.	DEATHS PER 1,000 OF POPULATION IN 1901.								Ratio of deaths in 1900.	Ratio of deaths in 1899.
	Plague.	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhoea.	Injuries.	All other causes.	All causes.		
Bengal	1.05	1.48	.50	21.72	.80	.43	5.46	31.04	36.63	31.21
Assam . . . . .	...	1.42	.62	15.86	2.19	.34	7.42	27.85	30.64	31.01
United Provinces of Agra and Oudh	...	1.13	.02	23.46	.57	.52	4.59	30.30	31.13	33.19
Punjab . . . . .	.74	.01	.31	25.26	.73	.31	8.77	36.13	47.69	29.57
North-West Frontier Province . . . . .	...	.06	.47	14.23	.19	.32	3.91	19.16	...	...
Central Provinces . . . . .	...	.01	.63	14.28	1.18	.63	6.73	23.46	56.75	28.09
Berar . . . . .	...	.006	.07	13.9	4.3	.4	8.8	27.6	82.7	39.9
Madras Presidency . . . . .	.1	2.2	.7	7.9	1.1	.3	9.0	21.3	23.4	20.1
Coorg . . . . .	...	.32	2.49	28.68	1.20	.44	3.28	36.49	36.42	28.00
Bombay Presidency	6.94	.74	.29	15.80	3.26	.38	9.72	37.12	70.07	36.48
Burma { Lower . . . . .	...	.64	.44	8.65	1.47	.25	10.28	21.74	27.51	27.30
Burma { Upper† . . . . .	...	...	.02	8.93	.45	.26	23.60	33.27	21.80	21.03
Ajmer-Merwara . . . . .	...	.10	.01	27.45	1.39	.48	3.70	33.13	119.97	33.21

† Statistics of 13 towns.

STATEMENT No. VIII.—Ratio of deaths from all causes according to months.

PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Bengal	2.92	2.35	2.88	3.18	2.20	1.85	2.23	1.98	2.39	2.47	2.59	3.94	31.01
Assam	2.20	1.97	2.02	2.46	2.64	2.42	2.61	2.33	2.19	2.11	2.33	2.57	27.81
United Provinces of Agra and Oudh.	1.99	1.69	1.93	2.11	2.34	2.21	2.25	2.41	3.09	3.62	3.34	3.30	30.31
Punjab	3.09	1.94	1.84	1.71	2.34	2.34	2.18	2.18	3.47	4.86	5.10	5.08	36.11
North-West Frontier Province.	1.88	1.53	1.43	1.34	1.55	1.50	1.36	1.50	1.34	1.60	2.06	2.05	19.11
Central Provinces	2.35	1.97	1.94	1.58	1.62	1.56	1.45	1.67	1.96	2.50	2.39	2.47	23.41
Berar	2.7	2.1	1.9	2.0	1.9	1.3	1.4	2.0	2.9	3.4	3.2	2.8	27.6
Madras Presidency	1.9	1.6	1.5	1.4	1.4	1.5	1.7	1.9	1.9	2.0	2.1	2.4	21.3
Coorg	3.19	3.19	2.61	2.58	3.69	3.57	4.00	3.70	2.88	2.33	2.15	2.60	36.41
Bombay Presidency	3.11	3.06	3.63	2.85	2.39	2.02	2.18	2.81	3.50	3.96	3.91	3.70	37.11
Burma { Lower	1.76	1.57	1.44	1.37	1.40	1.53	2.21	2.27	2.03	2.03	2.02	2.11	21.71
Burma { Upper†	2.82	2.51	2.68	2.57	2.31	2.57	2.97	2.83	2.86	2.81	3.21	3.14	33.21
Ajmer-Merwara	7.15	3.17	2.77	2.11	2.25	1.59	1.04	1.39	2.38	2.49	3.03	3.76	33.11

† Statistics of 13 towns.

Year.	Bengal.*	Assam.	United Provinces of Agra and Oudh.	Punjab.	N.-W. Frontier Province.	Central Provinces.	Berst.	Madras.	Coorg.	Bombay.	Lower Burma.	Upper Burma.†	Ajmer-Merwara.	Rajputana.	Central India.	Hyderabad.	Mysore.
1877	155,305	11,377	31,770	29	...	3,418	842	357,430	†	57,228	7,275	...	11	60	926	7,414	2,902
1878	95,192	6,732	22,221	215	...	40,985	34,366	47,167	49	46,743	6,759	...	210	2,393	8,047	6,656	723
1879	130,363	17,415	35,892	26,135	...	27,575	223	13,296	...	6,937	1,828	...	120	918	2,784	6	14
1880	39,643	2,083	71,546	274	...	330	1	613	...	684	2,638	...	3	...	299	...	25
1881	79,180	5,010	25,865	5,207	...	9,140	3,494	9,446	3	16,694	5,239	...	16	197	581	1,721	25
1882	182,352	21,055	89,372	39	...	11,932	3,573	23,604	31	7,904	7,177	...	289	1,327	1,562	150	893
1883	90,439	14,908	18,160	190	...	16,235	27,897	36,284	...	37,954	2,185	...	87	797	1,749	1,947	124
1884	134,421	22,276	30,143	614	...	149	87	75,476	...	13,804	5,515	...	227	1,297	1,018	2,479	330
1885	173,767	7,753	63,457	1,936	...	21,868	3,683	58,109	...	37,287	7,685	...	100	1,615	4,624	1,387	2,677
1886	118,368	20,188	34,565	12	...	16,679	976	12,417	...	167	4,027	...	765	173	290	499	10
1887	172,578	7,941	200,628	8,804	...	12,576	14,396	28,359	3	25,711	2,649	...	384	2,612	8,868	2,831	832
1888	111,391	9,693	18,704	14,938	...	921	305	58,677	2	36,500	15,982	...	13	32	191	2,057	1,015
1889	171,103	18,288	48,494	2,838	...	52,588	10,925	76,020	9	32,431	3,240	...	55	6,923	3,314	1,128	1,590
1890	145,885	15,396	80,295	3,401	...	4,787	847	25,288	5	3,259	1,076	...	408	2,746	3,132	...	1,626
1891	229,575	23,882	169,013	10,107	...	21,312	7,958	98,773	7	17,850	2,400	...	532	2,946	13,474	3,102	1,204
1892	259,398	21,552	194,886	75,959	...	39,972	2,030	79,033	58	42,900	6,208	...	2,352	26,760	8,384	53	5,497
1893	126,076	21,849	12,154	639	...	557	1,188	32,209	9	18,853	2,393	...	3	314	127	175	680
1894	236,150	13,497	178,979	113	...	7,043	3,452	42,289	8	33,588	7,428	...	...	2	5,210	1,862	328
1895	177,887	18,662	51,562	549	...	15,506	11,919	21,172	...	8,890	5,150	...	289	1,049	6,043	467	2,334
1896	226,824	17,042	69,147	5,146	...	52,985	12,264	47,847	49	35,404	2,959	...	12	3,797	15,766	525	2,100
1897	196,247	33,240	44,208	622	...	57,131	10,122	143,445	106	57,109	8,538	...	19	1,496	13,202	1,039	4,248
1898	65,020	11,149	2,508	331	...	7	...	65,444	8	4,368	2,972	...	1	6	2	6	1,193
1899	107,678	8,380	8,142	1,816	...	761	541	59,082	...	8,579	4,942	...	1	498	...	...	123
1900	345,878	23,761	84,960	28,260	...	63,114	18,375	61,662	...	163,883	3,449	...	41	28,719	20,450	3,813	779
1901	110,753	7,468	53,995	180	117	49	17	81,370	58	13,600	3,552	...	50	6	72	1	11,351

* Excluding Calcutta from 1877 to 1892.
 † Statistics from 1877 to 1896 not available.
 ‡ Statistics not available.
 § Including 30 deaths in Cantonments.
 ¶ Excluding Zamindaries.
 †† In selected towns only.

STATEMENT II.—Deaths from Cholera in British Provinces, by months during the year 1901.

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO PER 1000 OF POPULATION.	
														1901.	1900.
Bengal	12,251	5,986	9,452	15,720	10,019	5,931	3,294	7,691	7,077	5,080	5,716	17,406	110,753	1'48	4
Assam	687	422	684	1,732	1,545	280	405	146	120	111	343	493	7,468	1'42	4
United Provinces of Agra and Oudh	614	29	151	1,492	1,339	2,000	3,057	7,297	9,518	13,955	9,444	4,296	53,995	1'13	1
Punjab . . . . .	...	...	1	1	1	5	56	66	35	15	...	...	180	0'01	1
North-West Frontier Province . . . . .	...	...	...	...	1	2	29	58	21	6	...	...	117	0'06	...
Central Provinces . . . . .	...	...	...	...	...	1	...	3	5	24	4	12	49	0'01	6
Berar . . . . .	...	...	...	...	...	...	1	12	4	...	...	...	17	0'006	...
Madras Presidency	10,473	6,937	4,351	3,651	3,995	4,719	5,945	8,017	6,963	6,604	8,032	11,622	84,370	2'2	...
Coorg . . . . .	...	...	...	4	31	3	4	...	...	...	12	4	58	0'32	...
Bombay Presidency	1,085	1,461	2,763	3,016	1,666	1,126	699	971	575	202	26	9	13,600	0'74	8
Burma { Lower	428	535	567	401	273	145	497	480	140	19	26	41	3,532	0'64	...
Burma { Upper* . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Ajmer-Merwara . . . . .	...	...	1	...	...	...	4	...	...	...	35	10	50	0'10	3
TOTAL	25,669	15,376	18,004	25,847	18,870	14,712	19,891	24,742	24,558	26,016	21,638	33,893	271,210	1'21	3

* Statistics for 13 towns.

STATEMENT III.—Details of the distribution and occurrence of cholera during the year 1901.

Province.	Mortality in 1901.	Mean mortality of previous 5 years.	Urban mortality.	Rural mortality.	Percentage of villages attacked.	Maximum mortality in any one district excluding towns.	Maximum mortality in any one town.	Month of maximum prevalence.
Bengal	1'48	2'53	2'40	1'44	9'33	9'36	18'17	December.
Assam	1'42	3'54	1'73	1'41	7'75	2'97	5'94	April.
United Provinces of Agra and Oudh	1'13	0'89	1'31	1'12	4'72	5'47	28'93	October.
Punjab	0'01	0'32	0'05	0'004	0'11	0'06	2'67	August.
North-West Frontier Province	0'06	0'50	0'11	0'05	0'77	0'13	0'22	August.
Central Provinces	0'01	...	...	0'01	0'03	0'10	0'13	October.
Berar	0'006	2'9	0'002	0'07	0'11	0'03	0'07	August.
Madras Presidency	2'2	2'1	2'7	2'1	19'31	5'0	27'7	December.
Coorg	0'32	0'18	...	0'35	2'32	1'46	...	May.
Bombay Presidency	0'74	2'86	0'37	0'79	3'57	7'50	15'76	April.
Burma { Lower	0'64	1'02	0'85	0'61	5'07	1'66	5'27	March.
Burma { Upper† . . . . .	...	...	...	...	...	...	...	...
Ajmer-Merwara	0'10	2'04	0'21	0'06	0'41	1'56	0'40	November.

† Statistics for 13 towns, one death in August.

TABLE I.—Small-pox mortality.

PROVINCES, MONTHS, DISTRICTS, TOWNS, CHILDREN.	Bengal.	Assam.	United Provinces.	Punjab.	North-West Frontier Province.	Central Provinces, (a)	Berar.	Lower Burma.	Upper Burma.*	Madras Presidency.	Bombay Presidency.	Ajmer-Merwar.	Coorg.	Registrars India.
Provincial Deaths:—														
January	2,022	157	54	545	120	772	28	184	...	2,535	602	...	68	7,083
February	3,026	214	44	433	74	652	16	272	...	2,170	625	...	94	7,030
March	4,087	266	73	460	120	890	31	477	...	2,648	624	1	54	9,971
April	6,402	417	142	552	77	803	34	349	...	2,530	895	...	21	12,235
May	4,699	445	150	365	89	822	32	197	...	2,744	649	1	25	10,220
June	3,627	306	161	660	116	564	12	254	...	1,939	464	...	38	8,251
July	2,225	320	140	669	81	417	9	206	...	2,040	294	...	91	7,633
August	1,022	197	67	380	67	215	6	124	...	1,822	250	...	26	5,087
September	1,569	124	28	265	34	85	1	126	...	1,584	125	...	14	4,255
October	1,409	152	16	221	34	92	2	98	...	1,768	27	...	1	3,839
November	1,284	209	40	280	56	125	1	60	...	1,995	108	...	6	4,193
December	3,478	457	66	712	77	220	17	81	...	2,278	226	2	8	7,622
Total	37,680	3,274	981	6,124	925	5,681	190	2,468	...	26,202	5,240	4	449	89,278
—Provincial Death-Ratios:—														
Ratio per 1,000 of population, 1901.	0'50	0'62	0'02	0'31	0'47	0'66	0'07	0'44	...	0'72	0'39	0'01	2'48	0'40
Ratio per 1,000 of population, 1900.	0'20	0'18	0'03	Not available.	Not available.	0'24	0'29	0'38	...	0'84	0'52	4'81	1'81	0'40
Difference	+0'21	+0'44	-0'01	...	...	-0'08	-0'22	-0'14	...	-0'12	-0'13	-4'80	+0'67	0'00
Mean ratio per 1,000 during 1896-1900.	0'21	0'70	0'58	0'71	1'14	0'43	0'22	0'77	...	0'58	0'25	2'34	0'49	0'46
Difference	+0'20	-0'08	-0'06	-0'40	-0'67	+0'23	-0'15	-0'23	...	+0'14	+0'04	-2'33	+1'99	-0'06
I.—District mortality:—														
Number of districts	45	8	48	27	5	20	6	17	...	21	24	17	5	243
Highest district ratio	5'64	1'14	0'12	2'17	2'71	2'55	0'20	5'52	...	2'45	2'25	0'08	5'80	5'80
Increase or decrease in that district	-0'09	+0'91	+0'21	+1'29	+2'67	-1'12	-0'82	+5'24	...	-1'19	+1'75	-12'12	+4'26	+4'26
Name of that district	Cuttack	Sylhet	Jalaun	Montgomery.	Banna	Nagpur	Wan	Mergul	...	Godavari	Kanara	Gocila	Padmal-kand.	Padmal-kand.
Lowest district ratio	0'02	0'05	0'001	0'002	0'03	0'01	0'009	0'01	...	0'01	0'01	0'05	0'29	0'001
Percentage of districts above rural mortality	24	22	23	26	40	35	33	25	...	23	17	18	49	25
Percentage of districts with increased mortality	73	62	25	38	60	55	17	41	...	43	33	...	80	42
Number of districts without mortality . . . . .	...	...	3	...	...	...	...	1	...	...	2	14	...	20
Provincial rural mortality	0'47	0'63	0'02	0'28	0'49	0'61	0'07	0'41	...	0'71	0'24	0'01	2'64	0'39
Provincial percentage of districts above the India rural mortality	31	28	...	19	42	45	...	35	...	67	8	...	100	...
V.—Urban mortality:—														
Number of towns	157	19	107	140	10	52	43	25	12	94	63	6	5	744
Highest town ratio	19'40	2'29	0'20	10'50	2'40	6'26	1'14	6'51	0'38	17'80	8'64	...	2'10	19'40
Increase or decrease in that town	+17'92	+2'10	...	+9'97	+2'40	+6'26	+0'53	+4'54	-1'75	+17'74	+6'57	...	-1'50	+17'92
Name of that town	Sona-mukhi.	Habiganj	Bansdih	Patti	Edward-sabad.	Sehora	Hilwar Khad	Mergul	Sallo	Cochila	Karwar	...	Verajen-drapet.	Sona-mukhi.
Lowest town ratio	0'01	0'09	0'01	0'01	0'02	0'03	0'06	0'03	0'12	0'01	0'01	...	0'44	0'01
Percentage of towns above urban mortality	13	21	18	24	40	29	9	20	31	23	25	...	20	21
Percentage of towns with increased mortality	53	21	11	20	40	42	11	32	15	37	20	...	...	31
Number of towns without mortality	45	14	85	68	3	24	32	18	9	36	29	...	2	356
Provincial urban mortality	1'09	0'21	0'01	0'52	0'26	1'15	0'05	0'68	0'02	0'61	0'63	...	0'85	0'59
Provincial percentage of towns above the India urban mortality	26	11	...	24	40	42	5	26	...	24	25	...	20	...
V.—Infantile mortality:—														
Children under 1 year	5,512	1,062	351	1,550	204	1,662	24	228	...	8,029	1,155	2	} Not given.	}
Children, 1-10 years	14,068	1,480	527	3,182	568	2,722	74	774	...	7,121	2,478	1		
Percentage of children in total small-pox mortality	52'76	77'64	89'50	78'52	80'24	76'31	59'84	45'06	...	57'86	68'03	75'00	...	...

† Late North Western Provinces and Oudh.

(a) Excluding Chhattisgarh Zamindaries.

* Towns only.

TABLE II.—Fever mortality.

PROVINCES, MONTHS, DISTRICTS, TOWNS.	Bengal.	Assam.	United Provinces. ^a	Punjab.	North-West Frontier Province.	Central Provinces (a).	Bihar.	Lower Burma.	Upper Burma.	Madras Presidency.	Bombay Presidency.	Ajmer-Merwara.	Coorg.	Registration India.
I.—Provincial Deaths :—														
January	15,640	5,053	76,570	45,480	2,057	13,135	3,431	4,133	...	24,032	21,070	2,090	436	354,26
February	131,195	5,603	65,057	27,030	2,393	11,393	2,753	3,714	...	21,775	23,175	1,101	407	291,17
March	142,374	5,635	76,330	25,344	2,135	10,738	2,250	2,667	...	21,026	24,579	1,070	353	323,20
April	161,700	6,623	81,680	22,502	1,080	8,700	3,055	3,032	...	20,006	24,534	810	330	335,02
May	115,153	7,078	91,354	31,260	2,375	9,014	2,770	3,181	...	20,026	19,025	912	521	305,44
June	97,187	7,089	84,102	33,377	2,374	8,595	1,857	3,221	...	21,835	16,127	615	525	277,70
July	114,615	8,805	81,134	20,494	2,031	7,313	1,718	4,227	...	23,240	15,675	395	515	290,59
August	99,349	7,079	79,025	20,002	2,141	8,619	2,437	4,083	...	25,345	18,285	501	553	273,51
September	124,030	6,979	105,783	43,742	2,009	10,159	3,235	4,145	...	25,391	21,434	957	418	315,80
October	123,802	6,483	127,214	70,504	2,293	12,993	4,041	4,171	...	25,100	25,052	993	359	415,01
November	144,692	6,734	112,205	73,730	3,157	13,106	4,466	4,164	...	27,962	25,835	1,127	377	431,14
December	211,253	7,475	135,232	69,691	3,208	12,622	3,781	5,151	...	31,251	28,435	1,408	391	502,63
Total	1,617,019	83,695	1,118,977	598,035	29,108	127,170	37,848	47,930	...	234,854	191,051	12,059	5,182	4,174,91
II.—Provincial Death Ratios :—														
Ratio per 1,000 of population, 1902.	21'72	15'86	23'46	25'26	14'23	14'66	13'93	8'65	...	7'90	15'80	27'45	22'69	18'71
Ratio per 1,000 of population, 1900.	23'97	14'70	23'53	not available	...	20'70	20'45	11'18	...	8'74	28'87	81'36	27'97	21'8
Difference	-2'25	+1'16	-0'12	...	...	-14'04	-15'52	-2'53	...	-0'84	-13'07	-54'11	+0'72	-4'1
Mean ratio per 1,000 during 1896-1900.	21'95	19'35	25'94	21'05	27'44	26'36	20'63	11'48	...	8'09	19'17	36'03	26'35	20'3
Difference	-0'23	-3'72	-2'48	+4'20	-8'21	-11'70	-6'70	-2'83	...	-0'19	-3'37	-8'58	+1'34	-2'3
III.—District mortality :—														
Number of districts	45	8	48	27	5	20	6	17	...	21	24	17	5	24
Highest district ratio	35'36	29'96	24'86	40'98	20'67	23'92	16'30	15'25	...	17'07	45'47	30'48	36'14	45'4
Increase or decrease in that district.	-5'17	+ 1'67	+ 5'36	- 1'64	- 2'98	- 53'03	- 24'32	- 4'33	...	- 13'33	- 74'65	- 175'15	+ 3'35	- 74'6
Name of that district	Dinajpur	Goalpara	Merada- bad.	Karnal	Dera Ismael Khan.	Nimar	Wun	Sandoway	...	Nilgiris.	Ahmed- abad.	Goelta.	Nanja- rajapatna.	Ahmed- abad.
Lowest district ratio	9'72	10'37	13'95	4'34	10'81	7'27	11'25	5'81	...	3'95	7'80	12'28	21'77	3'5
Percentage of districts above rural mortality.	49	50	41	41	60	50	33	47	...	43	46	71	60	4
Percentage of districts with increased mortality.	27	88	46	8	...	...	...	12	...	33	21	...	60	3
Number of districts without mortality.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Provincial rural mortality	21'96	15'85	21'98	21'74	14'61	14'85	13'59	8'86	...	7'91	16'00	29'65	29'25	18'8
Provincial percentage of districts above the India rural mortality.	64	38	77	74	20	10	...	...	...	...	29	94	100	...
IV.—Urban mortality :—														
Number of towns	157	19	107	140	10	52	43	35	13	94	63	6	5	74
Highest town ratio	87'01	31'37	69'29	60'22	18'23	23'71	27'45	29'88	10'82	21'80	40'38	49'10	51'74	103'3
Increase or decrease in that town.	+ 61'25	- 5'10	+ 26'75	+ 19'73	- 2'88	- 39'49	- 33'98	- 4'00	+ 1'08	+ 5'08	+ 18'40	- 19'37	+ 19'04	+ 18'4
Name of that town	Jamalpur	Golaghat	Brinda- ban.	Kila Sebha- Singh.	Nowshera	Khandwa	Karanja	Pegu	Mandalay	Nandjat	Gegha	Pisaung	Kodilpet	Gogha
Lowest town ratio	2'33	4'45	11'40	0'82	2'73	3'75	2'55	2'81	2'50	0'31	1'35	13'37	12'61	0'3
Percentage of towns above urban mortality.	50	43	44	41	50	44	43	46	31	20	43	67	40	4
Percentage of towns with increased mortality.	32	48	51	24	10	6	3	44	46	49	41	...	60	3
Number of towns without mortality.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Provincial urban mortality	17'05	15'29	29'81	20'90	10'52	12'77	15'78	7'10	8'93	7'73	14'46	21'54	22'26	19'4
Provincial percentage of towns above the India urban mortality.	47	37	93	59	10	10	30	3	...	2	25	83	80	...

^a Late North-Western Provinces and Oudh.

(a) Excluding Chhattisgarh Zamindari.

^{*} Towns only.

TABLE III.—Dysentery and Diarrhœa mortality.

PROVINCES, MONTHS, DISTRICTS, TOWNS.	Bengal.	Assam.	United Provinces.†	Punjab.	North-West Frontier Province.	Central Provinces (a).	Bihar.	Lower Burma.	Upper Burma.*	Madras Presidency.	Bombay Presidency.	Ajmer-Merwara.	Coorg.	Registration India.
Provincial Deaths—														
January	6,511	884	1,777	1,272	74	1,235	1,542	545	...	3,304	5,042	185	18	22,630
February	4,735	738	1,386	738	20	1,025	1,074	364	...	2,828	4,640	97	11	17,905
March	4,938	746	1,402	585	19	835	866	614	...	2,445	5,686	59	7	17,651
April	5,273	931	1,766	665	30	630	717	355	...	2,237	4,140	40	17	17,490
May	4,284	1,125	2,093	932	41	502	677	645	...	2,451	4,335	16	26	17,318
June	3,703	914	2,162	864	35	655	510	710	...	2,855	4,261	25	30	15,725
July	4,457	1,166	2,116	782	40	745	637	1,165	...	3,731	5,238	14	44	20,073
August	4,268	1,072	2,553	1,069	30	883	1,072	1,134	...	4,770	6,264	41	19	22,254
September	5,155	1,058	3,161	1,781	39	1,027	1,466	623	...	4,288	6,275	46	16	24,038
October	4,954	1,002	3,060	2,412	51	1,063	1,308	630	...	3,984	5,286	40	6	23,994
November	4,441	1,037	2,949	1,050	30	893	1,087	420	...	4,327	4,657	42	11	21,844
December	6,544	914	2,718	1,672	26	795	837	511	...	4,635	4,294	62	13	23,291
Total	59,643	11,576	27,172	14,722	330	10,290	11,853	8,151	...	42,084	60,198	667	218	247,054
Provincial Death-Ratios:—														
Ratio per 1,000 of population, 1901.	0'80	2'19	0'57	0'73	0'39	1'20	4'35	1'47	...	1'73	3'36	1'40	1'30	1'11
Ratio per 1,000 of population, 1900.	0'91	2'84	0'65	not available	...	5'16	21'30	1'84	...	1'18	11'50	13'90	1'70	2'45
Difference	-0'11	-0'65	-0'08	...	...	-3'96	-18'03	-0'37	...	-0'05	-8'33	-12'50	+0'01	-1'34
Mean ratio per 1,000 during 1896-1900.	0'65	3'16	0'77	0'81	0'25	3'87	9'91	1'82	...	0'99	5'01	4'67	1'51	1'51
Difference	+0'15	-0'97	-0'20	-0'08	-0'16	-2'67	-5'35	-0'35	...	+0'14	-1'75	-3'27	-0'21	-0'40
I.—District mortality:—														
Number of districts	45	8	48	27	5	20	6	17	...	21	24	17	5	213
Highest district ratio	5'48	4'73	7'06	2'00	0'63	2'80	0'60	3'12	...	3'63	8'28	1'51	0'71	8'28
Increase or decrease in that district.	+0'71	-1'26	-0'62	-1'98	-0'02	-11'75	-17'77	-0'70	...	+0'42	-11'26	-7'88	+0'29	-12'26
Name of that district	Puri	Lakhimpur.	Garhwal	Simla	Dera Ismail Khan.	Wardha	Etahpur	Thabon	...	Chingleput.	Shelapur	Kekri	Padmal-koad.	Sholapur.
Lowest district ratio	0'01	0'14	0'01	0'04	0'03	0'09	1'38	0'33	...	0'17	5'01	0'05	0'16	0'01
Percentage of districts above rural mortality.	24	50	33	37	20	30	67	35	...	33	33	20	80	31
Percentage of districts with increased mortality.	20	...	20	8	...	...	...	20	...	20	4	...	80	13
Number of districts without mortality.	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Provincial rural mortality	0'68	2'16	0'44	0'51	0'14	1'11	4'44	1'29	...	0'86	3'09	0'45	0'50	0'54
Provincial percentage of districts above the India rural mortality.	20	75	15	15	...	50	100	47	...	29	61	24	...	...
V.—Urban mortality:—														
Number of towns	157	19	107	240	10	51	43	35	13	94	63	6	5	744
Highest town ratio	16'00	10'68	11'85	11'94	1'27	6'37	12'02	4'80	1'27	15'53	13'30	9'46	20'79	20'79
Increase or decrease in that town.	-4'32	-4'70	+0'66	+1'53	-0'53	-21'79	-12'82	+2'14	-0'70	+3'28	-0'75	-75'02	+1'91	+1'91
Name of that town	Garulia	North Lakhimpur.	Ballia	Khanpur	Edwardesabad.	Sambalpur.	Ner-Pingal.	Allanmyo	Yamethin	Palamcottah.	Nasik	Ajmer-Suburb.	Vera-jendrapet.	Vera-jendrapet.
Lowest town ratio	0'05	0'77	0'03	0'13	0'14	0'11	0'55	0'09	0'06	0'04	0'28	0'36	1'15	0'03
Percentage of towns above urban mortality.	22	47	28	44	40	38	40	31	31	26	40	33	20	28
Percentage of towns with increased mortality.	41	32	38	31	20	6	...	32	38	35	10	...	40	29
Number of towns without mortality.	9	3	14	3	1	1	3	1	2	11	1	1	2	53
Provincial urban mortality	3'11	3'80	2'25	2'52	0'58	2'09	3'90	2'75	0'45	4'26	4'35	3'95	8'81	3'19
Provincial percentage of towns above the India urban mortality.	21	58	17	3	...	21	40	20	...	34	51	50	40	...

† Late North Western Provinces and Oudh.

(a) Excluding Chhattisgarh Zamindaries.

* Towns only.

TABLE IV.—Plague deaths.

PROVINCE OR STATE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
													1901.	1900.
Bengal	9,138	15,065	20,786	17,570	2,521	270	79	133	331	429	720	1,496	78,629	38,440
Assam . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*United Provinces of Agra and Oudh.	31	451	3,797	2,889	659	7	...	4	89	244	270	1,333	9,778	1,000
Punjab	101	198	515	1,857	1,790	507	123	56	153	1,174	3,623	6,624	16,720 ^(b)	5,000
North-West Frontier Province.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Punjab Native States (Kapurthala, Patiala, Nabha).	...	...	...	369	413	26	...	3	11	85	596	695	2,157	19,000
Jammu and Kashmir State.	...	4	26	108	140	41	4	2	8	65	558	887	1,852	...
Central Provinces . . . . .	...	...	1	2	...	...	...	...	2	1	...	3	9	5,000
Berar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burma . . . . .	...	...	...	1	1	...	1	...	...	...	...	...	3	...
Madras Presidency	166	413	283	95	33	20	27	41	62	151	372	1,772	3,035	6,000
Bombay "	2,587	5,832	8,000	4,824	5,345	2,201	5,135	11,027	10,925	25,193	21,071	18,109	128,159	33,000
Bombay Presidency (Native States).	420	568	820	907	475	267	1,358	2,895	5,552	6,380	5,710	4,128	29,821	5,000
Baluchistan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ajmer-Merwara . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajputana, Marwar State, Jaipur State, Sirohi State.	1	22	110	40	2	...	...	...	4	2	1	3	185	...
Central India . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cooch . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mysore	1,146	793	579	243	119	269	713	1,063	1,151	1,714	1,823	2,019	11,036	12,000
Bengalore Civil and Military Station.	378	226	134	37	17	14	11	11	18	22	152	235	1,255	...
Hyderabad State	25	7	3	...	...	...	...	...	1	2	...	111	149	6,000
TOTAL	14,093	23,582	45,179	28,931	9,434	3,812	7,451	15,250	27,603	35,732	35,761	37,005	282,788	92,000
Calcutta City	204	934	3,820	1,019	401	130	61	86	61	79	93	105	7,853	2,000
Bombay "	1,666	3,846	4,675	2,453	1,151	312	431	881	1,045	285	775	731	19,624	15,000
Madras "	1	1	1	...	...	...	...	...	...	...	...	...	3	...

* Lat- North-Western Provinces and Oudh.

(a) Patiala only.

(b) This total has been submitted by the Chief Plague Medical Officer, Punjab, and differs from that shown in the Sanitary Report for 1901.

STATEMENT NO. I.—Total Primary and Revaccinations, successful cases among the children, cost of the Special Vaccination Department, &c., during the official year 1901-02.

Province.	NUMBER OF PERSONS VACCINATED BY THE SPECIAL AND DISPENSARY STAFFS COMBINED.		PERCENTAGE OF SUCCESSFUL CASES TO TOTAL OPERATIONS.		NUMBER OF CHILDREN SUCCESSFULLY VACCINATED BY THE SPECIAL AND DISPENSARY STAFFS COMBINED.		Average number of operations performed by each vaccinator of the Special Staff.	Total cost of the Special Department.	Average cost of each successful case vaccinated by the special Department.
	Primary.	Revaccination.	Primary.	Revaccinations.	Under one year.	1 to 6 years.			
Bengal	2,529,778	133,048	98'01	67'07	775,729	1,482,590	950	1,87,818	0 1 2
Assam	271,415	9,412	97'48	81'09	64,747	175,835	978	22,776	0 1 7
United Provinces of Agra and Oudh	1,450,995	89,199	96'02	81'55	873,598	486,009	1,757	1,42,447	0 1 6
Punjab	511,121	157,023	93'92	58'47	377,482	92,008	2,527	92,045	0 2 7
North-West Frontier Province	63,321	7,672	91'03	75'18	32,194	20,325	2,369	11,281	0 3 3
Central Provinces	350,484	74,908	96'58	83'93	211,296	94,902	1,473	48,267	0 2 ½
Bihar	82,296	38,122	96 6	18'3	62,432	14,292	2,867	17,626	0 3 3
Madras Presidency	1,235,156	89,910	89'41	69'00	356,467	581,875	1,584	2,55,099	0 3 7
Bombay	8,416	1,356	93'50	74'26	905	4,063	1,050	2,719	0 5 0
Bombay Presidency	471,233	50,473	91'98	59'92	323,745	98,252	1,222	2,70,741	0 9 4
Burma	333,657	26,567	90'11	51'00	80,448	156,890	1,829	79,137	0 4 1
Upper-Merwara	10,831	10	99'21	80'00	8,032	2,421	723	2,301	0 3 5
TOTAL	7,358,744	677,700	94'97	65'50	3,167,075	3,210,362	1,182	11,32,257	0 2 6

STATEMENT NO. II.—Vaccination operations performed by the Special and Dispensary Establishment separately, deaths from small-pox, etc., during the official year 1901-02.

Province.	Population.	NUMBER OF PERSONS VACCINATED (PRIMARY AND REVACCINATIONS COMBINED).			Ratio of successful vaccinations per 1,000 of population.	Percentage of annual estimated births at 20 per 1,000 of population successfully vaccinated.	DEATHS FROM SMALL-POX.*	
		By special Department.	By Dispensary Staff.	Total.			Number.	Ratio per 1,000 of population.
Bengal	74,801,731	2,517,165	145,661	2,662,826	34'34	25'93	37,680	0'50
Assam	6,126,243	257,386	23,441	280,827	44'46	26'42	3,274	0'62
United Provinces of Agra and Oudh	47,960,667	1,579,795	400	1,580,195	31'37	45'54	581	0'02
Punjab	20,274,136	667,484	660	668,144	28 21	46'55	6,154	0'31
North-West Frontier Province	2,119,291	70,183	810	70,993	29'92	37'98	955	0'47
Central Provinces	11,873,029	410,235	15,157	425,392	33'80	44'49	6,081	0'63
Bihar	2,897,040	120,418	...	120,418	29'9	53'88	190	0'07
Madras Presidency	38,227,818	1,311,255	13,851	1,325,106	30'51	23'31	26,202	0'7
Bombay	180,607	9,452	320	9,772	49'15	12'53	449	2'48
Bombay Presidency	21,576,105	518,977	2,729	521,706	21'49	37'51	5,340	0'29
Burma	10,478,617	352,976	7,248	360,224	29'98	19'19	2,468†	0'44†
Upper-Merwara	476,912	10,841	...	10,841	22'55	42'11	4	0'01
TOTAL	236,992,296	7,826,167	210,277	8,036,444	31 36	33'41	89,778	0'40

* For the calendar year 1901.
 † For Lower Burma only

STATEMENT NO. III.—The number of persons primarily vaccinated and the number of those who were successfully vaccinated, in His Majesty's European and Native Troops in India, during 1901.

	EUROPEAN ARMY.										NATIVE ARMY.																	
	OFFICERS.		OFFICERS' WIVES.		OFFICERS' CHILDREN.		WARRANT AND NON-COMMISSIONED OFFICERS AND MEN.		WOMEN.		CHILDREN.		TOTAL.		EUROPEAN OFFICERS.		EUROPEAN OFFICERS' WIVES.		EUROPEAN OFFICERS' CHILDREN.		NATIVE COMMISSIONED, NON-COMMISSIONED OFFICERS AND MEN.		WOMEN.		CHILDREN.		TOTAL.	
	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.	Primary.	Successful.
Bengal	6	6	...	...	...	...	...	...	260	193	266	199	...	...	...	...	2	2	1,800	1,254	67	63	1,267	1,006	3,136	2,335
Punjab	4	2	6	6	...	...	...	...	289	235	299	243	...	...	...	...	1	1	3,211	2,537	102	98	1,486	1,468	4,800	4,044
Madras	2	2	6	6	...	...	...	...	119	85	127	87	...	...	...	...	2	2	906	604	28	52	1,310	1,104	2,307	1,762
Bombay	2	2	...	...	...	...	...	...	198	145	200	147	...	...	...	...	4	4	1,771	875	9	8	907	882	2,692	1,769
Hyderabad Contingent	324	267	...	...	614	496	938	763
India	14	12	12	12	6	6	...	...	866	638	892	676	...	...	...	...	11	9	8,012	5,537	256	221	5,894	4,896	13,873	10,663

ANNUAL RETURNS

OF THE

EUROPEAN ARMY OF INDIA,

OF THE

NATIVE ARMY AND OF THE JAIL
POPULATION

FOR THE YEAR

1901.

COMPILED AND SYSTEMATICALLY ARRANGED FROM THE ORIGINAL DOCUMENTS

BY

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ANNUAL REPORT

OF THE

NAVY AND

1890

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NOTE.—Owing to the system of weekly returns at present in force for the Army, the months mentioned in Tables XXIX and XXXI—XXXVIII for native troops are not calendar months, but 4-5 week periods.

For 1901 the months are divided as follows:—

- January*—from 1st January to 1st February.
- February*—from 2nd February to 1st March.
- March*—from 2nd March to 29th March.
- April*—from 30th March to 3rd May.
- May*—from 4th May to 31st May.
- June*—from 1st June to 28th June.
- July*—from 29th June to 2nd August.
- August*—from 3rd August to 30th August.
- September*—from 31st August to 27th September.
- October*—from 28th September to 1st November.
- November*—from 2nd November to 29th November.
- December*—from 30th November to 31st December.

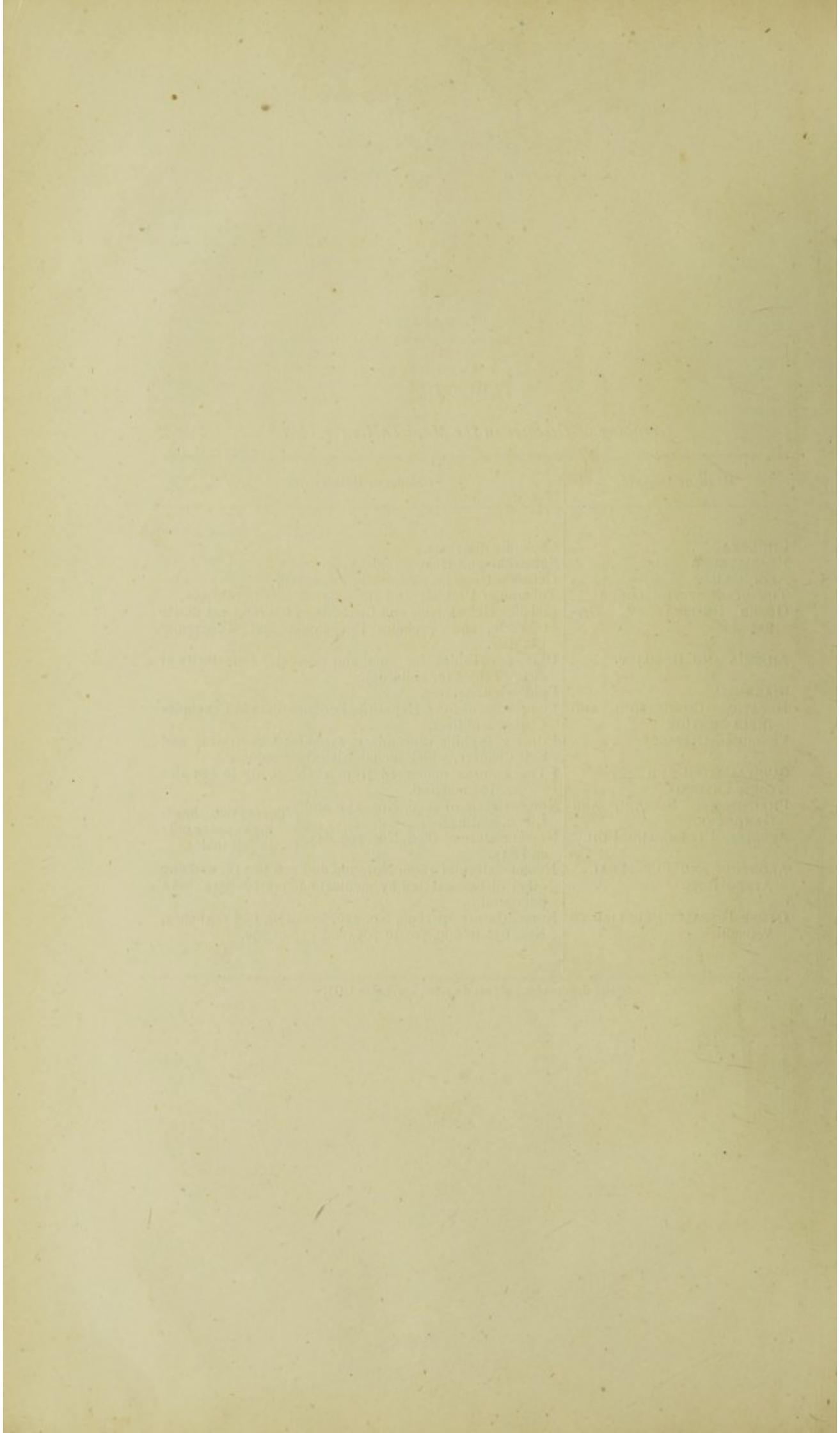
In the tables for European troops and for prisoners, on the other hand, the months mentioned are calendar months.

TABLE G.

*Grouping of Diseases in the Main Tables for 1901.**

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	Tubercular Phthisis, and Hæmoptysis due to tubercle.
OTHER RESPIRATORY DIS- EASES.	Includes Hæmoptysis and Cirrhosis of the lung not due to tubercle, and excludes Pneumonia and Tubercular 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	} The entozoa numbered from 1 to 56, 67 to 81: also Nos. 105 and 106.
OTHER ENTOZOA	
PHAGEDÆNA, SLOUGH, AND GANGRENE.	} Nomenclature of 1896, Nos. 25 <i>a</i> and <i>b</i> , 800, and 847. } These two head- ings appear only in jail tables.
ABSCESS, ULCER, AND BOIL	
ABORTION AND PUERPERAL	} Nomenclature of 1896, Nos. 700 and 706 to 718, and any other diseases stated by medical officers to have been puerperal.
AFFECTIONS.	
OTHER DISEASES PECULIAR TO WOMEN.	Nomenclature of 1896, No. 426, Vomiting of Pregnancy, Nos. 632 to 699, 701 to 705, and 719 to 730.

* For details of individual diseases, see Table LIII.



**I.—EUROPEAN TROOPS, 1901.
A. MEN.**

TABLE D.

STATIONS by COMMANDS.

STATIONS.	Height above sea level in feet.*	Authority for height. †	STATIONS.	Height above sea level in feet.*	Authority for height. †	STATIONS.	Height above sea level in feet.*	Authority for height. †
BENGAL :—			PUNJAB :—contd.			MADRAS :—contd.		
Fort William (Calcutta)	17	S. G.	Ferozepore	645	S. G.	Secunderabad	1,732	S. G.
Fort Fulda	18	"	Amritsar	756	"	Belgaum	2,473	"
Fort Chingrikhal . . . . .	...	...	Meean Meer	706	"	Cannanore	47	"
Dum-Dum . . . . .	...	...	Fort Lahore	706	"	Calicut	27	M. D.
Barrackpore	24	S. G.	Sialkot	829	"	Mallapuram	500	M. O.
Dinapore . . . . .	...	...	Rawalpindi	1,707	"	Bellary	1,483	S. G.
Benares	295	S. G.	Campbellpur	1,230	M. O.	Bangalore	3,021	"
Allahabad	298	"	Attock	891	S. G.	Trichinopoly	274	"
Fort Allahabad	298	"	Nowshera	1,100	M. O.	Pallavaram	74	"
Fyzabad	336	"	Peshawar	1,165	S. G.	St. Thomas' Mount	250	"
Sitapur	440	"	Mooltan	402	"	Madras	15	"
Lucknow	400	"	‡ Solon	5,166	"	‡ Ramandrug	3,150	"
Cawnpore	417	"	‡ Dagshai	5,982	"	‡ Wellington	6,160	"
Fatehgarh	444	I. B.	‡ Subathu	4,124	"	Poonamallee Depôt	50	M. O.
Shahjahanpur	597	S. G.	‡ Jutogh	6,371	"	BOMBAY :—		
Bareilly	560	"	‡ Khyragully	8,746	"	Hyderabad	134	I. B.
Roorkee	884	"	‡ Baragully	7,800	M. O.	Kurrachee	28	S. G.
Meerut	739	"	‡ Kuldunah	7,049	S. G.	Deesa	468	"
Delhi	715	"	‡ Kalabagh	7,936	I. B.	Ahmedabad	170	"
Muttra	576	"	‡ Camp Gharial	5,112	S. G.	Neemuch	1,613	"
Agra	554	"	‡ " Thobba	7,133	I. B.	Nasirabad	1,461	"
Jhansi	860	"	‡ " Upper Topa	7,000	M. O.	Indore	1,806	"
Nowgong	770	I. B.	‡ " Lower Topa	7,320	I. B.	Mhow	1,993	"
Saugor	1,753	S. G.	‡ Khanspur	7,500	M. O.	Kamptee	941	"
Jubbulpore	1,306	"	‡ Cherat	4,520	S. G.	Sitabaldi	1,236	"
‡ Ranikhet	5,983	"	Kasauli Convalescent Depôt	5,071	"	Satara	2,183	"
‡ Chaubattia	6,942	"	Dalhousie " "	6,732	"	Poona	1,999	"
‡ Chakrata	6,885	"	Murree " "	7,098	"	Kirkee	1,837	"
‡ Lebong	6,000	I. B.	MADRAS :—			Ahmednagar	2,125	"
Darjeeling Convalescent Depôt.	7,168	S. G.	Port Blair	85	S. G.	Colaba (Bombay)	20	"
Naini Tal "	6,400	"	Rangoon	14	"	Quetta	5,511	"
Landour "	7,362	"	Thayetmyo	145	"	Taragarh Sanitarium	2,855	"
Pachmarhi Sanitarium	3,481	"	Meiktilla	298	"	Mount Abu "	3,060	"
PUNJAB :—			Fort Dufferin (Mandalay)	249	"	Purandhur "	4,954	"
Umballa	902	S. G.	Shwebo	600	M. O.	Khandalla "	2,000	M. O.
Jullundur	900	"	Bhamo	351	S. G.	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.
 ‡ 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.*
I.—STRENGTH	19,000	16,431	10,282	15,125	60,838
II.—† CONSTANTLY-SICK-RATE OF EACH MONTH—					
January	66·8	69·5	92·1	81·2	75·4
February	54·3	61·4	86·5	74·8	66·6
March	50·1	55·5	76·4	66·9	60·1
April	57·8	57·9	71·2	62·1	61·1
May	62·6	64·5	72·5	60·6	64·3
June	52·7	62·4	76·6	62·6	64·9
July	64·9	61·9	77·4	63·4	65·9
August	63·6	65·8	78·3	68·4	67·9
September	65·9	66·6	78·5	76·5	70·8
October	65·2	58·2	77·5	77·9	68·5
November	65·6	66·2	80·6	67·8	68·9
December	69·0	64·7	80·6	63·5	68·5
OF THE YEAR	62·3	62·9	79·0	68·8	66·9
III.—ADMISSION-RATE OF THE YEAR—					
Influenza	7·3	9·4	12·8	7·6	8·9
Cholera	·4	...	·2	·2	·2
Small-pox	·4	·2	·5	·3	·3
Enteric Fever	13·3	12·6	6·4	16·6	12·8
Intermittent Fever	223·8	339·3	308·6	319·7	293·2
Remittent Fever	3·5	8·2	5·7	8·0	6·3
Simple Continued Fever	21·9	17·2	28·6	32·7	24·4
Tubercle of the lungs	2·9	2·8	3·6	4·5	3·4
Pneumonia	3·2	5·2	3·1	4·2	4·0
Other Respiratory Diseases	23·1	28·8	27·3	23·7	25·5
Dysentery	25·6	14·7	26·2	19·6	21·3
Diarrhœa	14·7	18·7	2·4	14·3	13·6
Hepatic Abscess	3·3	1·8	2·6	2·3	2·5
Congestion and Inflammation	16·6	12·0	22·9	15·9	16·3
Veneral Diseases	258·8	229·1	372·8	282·6	276·0
ALL CAUSES	979·5	1,098·5	1,278·1	1,149·0	1,104·3
IV.—DEATH-RATE OF THE YEAR—					
Cholera	·37	...	·19	·20	·20
Small-pox	·16	...	...	...	·05
Enteric Fever	2·58	4·99	1·75	3·50	3·32
Intermittent Fever	·37	·49	·29	·26	·36
Remittent Fever	·21	·12	·10	·13	·15
Simple Continued Fever	...	...	...	·26	·07
Heat-stroke	·63	·79	·29	·60	·61
Circulatory Diseases	·63	·55	·58	1·65	·85
Tubercle of the lungs	·47	·67	·19	·40	·46
Pneumonia	·37	1·03	·49	·33	·56
Other Respiratory Diseases	·11	·12	...	·20	·12
Dysentery	1·47	1·10	·19	·73	·97
Diarrhœa	·05	...	...	...	·02
Hepatic Abscess	1·79	·85	1·56	1·26	1·36
ALL CAUSES	12·95	12·90	9·34	13·16	12·38
V.—PERCENTAGE IN 100 ADMISSIONS—					
Influenza	·74	·85	1·00	·66	·80
Cholera	·04	...	·02	·02	·02
Small-pox	·04	·02	·04	·02	·03
Enteric Fever	1·35	1·15	·50	1·44	1·16
Intermittent Fever	22·85	30·89	24·15	27·82	26·55
Remittent Fever	·36	·74	·45	·70	·57
Simple Continued Fever	2·24	1·56	2·24	2·84	2·21
Tubercle of the lungs	·30	·25	·28	·39	·31
Pneumonia	·33	·47	·24	·36	·36
Other Respiratory Diseases	2·36	2·63	2·14	2·07	2·31
Dysentery	2·62	1·34	2·05	1·71	1·93
Diarrhœa	1·50	1·70	·19	1·25	1·23
Hepatic Abscess	·34	·17	·21	·20	·23
Congestion and Inflammation	1·70	1·09	1·79	1·39	1·47
Veneral Diseases	26·42	20·85	29·17	24·60	24·99
VI.—PERCENTAGE IN 100 DEATHS—					
Cholera	2·8	...	2·1	1·5	1·6
Small-pox	1·2	...	...	...	·4
Enteric Fever	19·9	38·7	18·8	26·6	26·8
Intermittent Fever	2·8	3·8	3·1	2·0	2·9
Remittent Fever	1·6	·9	1·0	1·0	1·2
Simple Continued Fever	...	...	...	2·0	·5
Heat-stroke	4·9	6·1	3·1	4·5	4·9
Circulatory Diseases	4·9	4·2	6·2	12·6	6·9
Tubercle of the lungs	3·7	5·2	2·1	3·0	3·7
Pneumonia	2·8	8·0	5·2	2·5	4·5
Other Respiratory Diseases	·8	·9	...	1·5	·9
Dysentery	11·4	8·5	2·1	5·5	7·8
Diarrhœa	·4	...	...	...	·1
Hepatic Abscess	13·8	6·6	16·7	9·5	11·0

* For complete detail of diseases, see Table LIII.

† Worked on the aggregates.

EUROPEAN TROOPS, 1901.

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 IV.

	RATIOS PER 1,000 OF THE AVERAGE STRENGTH.												
	I Burma Coast and Bay Islands.	II Burma Inland.	IV Bengal and Orissa.	V Gange- tic Plain and Chutia Nagpor.	VI Upper Sub- Hima- laya.	VII N.W. Frontier, Indus Valley, and N.W. Rajpu- tana.	VIII S.-E. Rajpu- tana, Central India, and Gajarat.	IX Deccan.	X Western Coast.	XI South- ern India.	XIIa Hill Stations.	XIIb Hill Conva- lescent Depôts, and Sanita- ria.	India.*
I.—STRENGTH	1,049	1,906	2,025	6,160	11,045	4,458	5,442	8,630	1,552	2,662	8,692	3,184	60,838
II.—†CONSTANTLY-SICK-RATE OF EACH MONTH—													
January	73.7	117.4	90.3	83.8	74.0	76.6	99.5	88.4	61.7	61.6	62.1	122.4	75.4
February	73.9	113.0	68.0	50.1	73.4	63.3	82.6	81.6	50.4	49.0	67.0	102.1	66.6
March	61.7	130.6	53.4	49.1	58.5	61.6	66.2	75.9	52.8	47.0	50.0	81.0	60.1
April	60.6	91.7	57.7	52.9	66.0	57.3	70.2	70.3	55.4	50.5	43.0	79.7	61.1
May	61.3	76.1	56.8	57.8	76.4	71.4	73.7	73.2	52.8	62.1	44.6	74.3	64.3
June	48.5	88.1	70.3	58.3	71.0	53.6	71.3	80.7	51.0	54.9	47.4	83.3	64.9
July	63.1	87.3	66.6	64.0	64.0	64.6	70.4	80.0	48.3	64.3	47.6	84.2	65.9
August	64.1	85.1	79.9	56.9	70.4	63.6	77.8	80.0	54.5	68.8	48.7	85.8	67.9
September	62.0	84.7	92.5	54.9	78.0	50.5	95.3	87.1	53.6	62.8	50.2	82.2	70.8
October	65.0	95.0	90.2	53.3	72.0	47.8	57.3	81.5	48.2	63.5	52.3	70.6	68.5
November	74.3	102.0	83.4	56.0	68.0	63.9	87.7	77.7	54.3	61.2	56.7	76.4	68.9
December	91.5	100.2	91.4	66.0	66.3	55.4	129.5	77.3	59.5	51.8	58.2	56.0	68.5
OF THE YEAR	66.9	90.9	74.9	57.9	69.3	61.5	84.5	79.4	53.6	58.7	49.3	81.4	66.9
III.—ADMISSION-RATE OF THE YEAR—													
Influenza	59.1	...	1.5	5.7	4.4	13.5	9.9	8.1	2.6	6.0	13.6	20.1	8.9
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	1.0	...	1.0	...	...	1.1	...	...	...	...	...	...	...
Enteric Fever	...	4.2	7.4	11.0	14.0	11.7	25.4	17.0	...	3.8	12.0	10.4	12.8
Intermittent Fever	225.0	706.4	248.4	229.4	395.7	288.9	461.4	220.7	206.8	127.7	122.9	434.7	293.2
Remittent Fever	...	9.4	15.3	1.9	6.9	8.1	19.7	2.9	3.9	7.1	3.2	3.5	6.3
Simple Continued Fever	7.6	...	4.0	37.8	7.8	54.1	42.8	41.1	12.2	80.0	3.2	10.1	24.4
Rheumatic Fever	1.0	1.0	...	...	...	...	...	...	...	...	...	...	...
Tubercle of the lungs	4.8	3.1	5.4	2.6	3.9	1.6	3.7	1.6	...	3.4	1.2	4.7	3.4
Pneumonia	1.0	6.8	2.0	2.8	5.2	3.8	2.8	2.3	3.2	1.1	6.3	4.7	4.0
Other Respiratory Diseases	31.5	25.7	17.3	23.4	28.5	21.5	26.6	21.4	24.5	20.3	26.5	43.0	25.5
Dysentery	44.8	28.9	35.9	19.3	18.7	9.4	23.2	22.2	13.5	20.7	12.5	17.9	21.3
Diarrhoea	1.0	3.7	19.3	14.0	19.0	12.1	23.2	8.2	1.3	3.4	14.0	17.9	13.6
Hepatic Abscess	2.9	4.7	9.9	3.4	2.3	...	1.8	1.7	4.5	1.1	1.5	4.7	2.5
Hepatic Congestion and Inflammation	16.2	22.6	33.6	14.9	9.8	10.1	18.9	18.0	20.0	17.3	12.1	36.7	16.3
Veneral Diseases	476.6	293.9	370.9	219.6	253.0	227.9	313.1	408.9	216.5	320.1	212.8	208.9	276.0
ALL CAUSES	1,272.6	1,671.6	1,139.3	937.7	1,178.8	1,041.0	1,412.0	1,202.5	851.2	1,062.7	780.9	1,303.4	1,104.3
IV.—DEATH-RATE OF THE YEAR—													
Cholera	...	...	...	8.1	...	...	3.7	3.5	...	7.5	...	...	2.0
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	2.10	2.90	1.95	4.44	4.93	4.96	3.71	...	1.13	3.57	3.45	3.32
Intermittent Fever	...	1.57	1.98	3.2	6.3	...	3.7	...	...	...	...	6.3	3.6
Remittent Fever	...	...	4.9	1.6	1.8	2.2	1.8	...	...	...	...	6.3	1.5
Simple Continued Fever	...	...	...	...	...	...	7.4	...	...	...	...	...	7.7
Heat-stroke	95	52	49	97	1.00	1.12	92	1.12	...	3.8	...	...	6.1
Circulatory Diseases	...	1.05	99	97	5.4	2.2	92	1.39	1.93	3.8	1.04	3.1	8.5
Tubercle of the lungs	...	...	1.48	8.1	8.1	...	5.5	1.12	...	...	...	1.2	6.3
Pneumonia	...	1.05	...	3.2	1.00	9.0	5.5	4.6	6.4	3.8	6.9	...	5.6
Other Respiratory Diseases	...	...	4.9	...	1.8	...	3.7	1.12	...	...	...	...	1.12
Dysentery	95	...	5.43	1.30	1.72	4.5	1.10	2.3	...	...	8.1	6.3	9.7
Diarrhoea	...	...	...	...	9.9	...	...	...	...	...	...	...	9.2
Hepatic Abscess	95	2.62	4.94	2.11	9.1	...	1.30	1.51	1.20	7.5	9.0	2.83	1.36
ALL CAUSES	7.63	13.12	23.70	13.31	14.97	10.09	16.72	11.94	5.15	6.39	8.63	13.51	12.38
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza	4.64	...	1.3	6.1	3.8	1.29	7.0	6.7	3.0	5.7	1.74	1.54	8.0
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	0.7	...	0.9	...	...	1.1	0.1	0.9	...	...	...	...	0.3
Enteric Fever	...	2.5	6.5	11.8	11.9	1.12	1.80	1.42	0.8	3.5	1.53	8.0	11.6
Intermittent Fever	17.68	47.65	21.80	24.46	33.57	27.75	32.68	18.36	24.30	12.02	15.73	33.35	26.55
Remittent Fever	...	5.0	1.34	2.1	5.8	7.8	1.39	2.4	4.5	6.7	4.1	2.7	5.7
Simple Continued Fever	6.0	...	3.5	4.03	6.6	5.19	3.03	3.42	1.44	7.53	4.1	7.7	2.21
Rheumatic Fever	0.7	0.6	...	0.2	0.5	0.2	0.7	1.0	...	0.4	1.5	1.9	0.7
Tubercle of the lungs	3.7	1.9	4.8	2.8	3.3	1.5	2.6	1.5	0.8	3.2	1.5	3.6	3.1
Pneumonia	2.07	4.1	1.7	2.9	4.4	3.7	2.0	1.9	3.8	1.1	8.1	3.6	3.6
Other Respiratory Diseases	2.47	1.54	1.52	2.49	2.42	2.07	1.89	1.78	2.88	1.91	3.39	3.30	2.31
Dysentery	3.52	1.73	7.54	2.06	1.58	9.0	1.64	1.85	1.59	1.94	1.61	1.37	1.93
Diarrhoea	0.7	2.2	1.69	1.49	1.61	1.16	1.64	0.8	1.5	3.2	1.87	1.37	1.23
Hepatic Abscess	2.2	2.8	8.7	3.6	1.9	0.4	1.3	1.4	5.3	1.1	1.9	3.0	2.3
Hepatic Congestion and Inflammation	1.27	1.35	2.95	1.59	0.3	0.7	1.34	1.49	2.35	1.63	1.55	2.82	1.47
Veneral Diseases	37.45	17.70	32.55	23.42	21.45	21.89	22.18	34.00	25.44	30.97	27.25	16.02	24.99
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera	...	...	...	6.1	...	...	2.2	2.9	...	11.8	...	...	1.6
Small-pox	...	...	2.1	...	...	...	...	1.9	...	...	...	...	4
Enteric Fever	...	16.0	12.5	14.6	30.2	48.9	29.7	31.1	...	17.6	41.3	25.6	26.8
Intermittent Fever	...	12.0	8.3	2.4	4.3	...	2.2	...	...	...	...	4.7	2.9
Remittent Fever	...	...	2.1	1.2	1.2	2.2	1.1	...	...	...	...	4.7	1.2
Simple Continued Fever	...	...	...	...	...	...	4.4	...	...	...	...	...	1.5
Heat-stroke	12.5	4.0	2.1	7.3	6.8	11.1	5.5	1.0	...	5.8	...	...	4.9
Circulatory Diseases	...	8.0	4.2	7.3	3.7	2.2	5.5	11.7	37.5	5.8	12.0	2.3	6.9
Tubercle of the lungs	...	...	0.3	6.1	5.6	...	3.3	1.0	...	...	1.3	4.7	3.7
Pneumonia	...	8.0	...	2.4	6.8	8.9	3.3	3.9	12.5	5.8	8.0	...	4.5
Other Respiratory Diseases	...	...	2.1	...	1.2	...	2.2	1.0	...	...	...	...	9
Dysentery	12.5	...	22.9	9.8	11.8	4.4	6.6	1.9	...	...	9.3	4.7	7.8
Diarrhoea	...	...	...	...	6	...	...	...	...	...	...	...	1
Hepatic Abscess	12.5	20.0	20.8	15.9	6.2	...	7.7	12.7	25.0	11.8	10.7	20.9	11.0

* For complete detail of diseases, see Table LIII.

† Worked on the aggregates.

EUROPEAN TROOPS, 1901.

TABLE III.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals, see Table VI.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.													2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.	
Fort Blair .	140 {	...	...	...	...	100'0	...	57'1	...	...	7'1	14'3	...	...	...	...	...	...	85'7	41'4	12'7	...	14'3	28'4	42'9
Rangoon .	999 {	68'2	...	1'1	...	244'2	...	...	1'1	3'3	9'0	3'3	1'1	36'3	51'7	1'1	3'3	18'7	53'6	1,404'8	75'2	31'0	209'0	132'0	163'9
GROUP I.— BURMA COAST AND BAY IS- LANDS.	1,049 {	59'1	...	1'0	...	225'0	...	7'6	1'0	2'9	9'5	4'8	1'0	31'5	44'8	1'0	2'9	16'2	476'6	1,272'6	†	66'9	27'6	183'0	118'2	147'8
Thayetmyo	310 {	...	...	...	6'5	329'0	...	...	...	3'2	9'7	6'5	3'2	58'1	9'7	3'2	...	6'5	232'3	1,048'4	57'8	41'9	54'8	29'0	106'5
Meiktila .	320 {	...	...	...	6'3	550'0	...	...	...	53'1	...	...	...	3'1	46'9	12'5	3'1	15'6	346'9	1,509'4	110'5	37'5	146'9	65'6	96'9
Fort Dufferin	703 {	...	...	...	5'7	1,465'1	...	...	2'8	7'1	21'3	2'8	5'7	11'4	24'2	1'4	7'1	38'4	305'8	2,342'8	122'5	89'6	58'3	74'0	83'9
Shwebo .	548 {	...	...	...	4'27	1'42	...	...	...	1'42	2'84	...	...	...	...	...	5'69	...	...	19'91	77'4	65'7	32'8	51'1	131'4
Shamo .	25 {	...	...	...	...	520'0	...	...	...	40'0	...	...	...	...	...	...	...	...	480'0	1,240'0	115'2	160'0	120'0	40'0	160'0
GROUP II.— BURMA IN- LAND.	1,906 {	4'2	796'4	9'4	...	1'0	4'2	24'1	3'1	6'8	25'7	28'9	3'7	4'7	22'6	295'0	1,671'6	†	96'9	67'2	66'1	58'2	104'4
Fort William	1,977 {	...	...	...	...	181'1	22'3	1'9	...	2'8	11'1	5'6	1'9	7'4	17'6	4'6	1'9	25'1	502'1	1,060'4	79'3	63'1	158'8	52'5	227'5
" Fulka	10 {	...	...	...	...	100'0	...	...	...	...	...	...	...	...	...	...	...	...	100'0	300'0	1'0	...	...	...	100'0
" Chiengri- khal.	49 {	...	...	...	...	122'4	...	...	...	...	...	...	...	20'4	61'2	...	...	...	204'1	489'8	1'4	20'4	...	...	183'7
Dam-Dum .	577 {	...	...	3'5	22'5	282'5	12'1	...	1'7	8'7	5'2	1'7	32'9	98'8	27'7	12'1	50'3	195'8	1,032'9	24'26	61'8	17'3	67'6	38'1	72'8
Barrackpore	312 {	6'4	...	...	6'4	442'3	...	19'2	...	9'6	12'8	6'4	3'2	22'4	304'5	57'7	35'3	38'5	275'6	1,737'2	98'0	25'6	89'7	35'3	125'0
GROUP IV.— BENGAL AND ORISSA.	2,025 {	1'5	...	1'0	7'4	248'4	15'3	4'0	...	3'5	10'4	5'4	2'0	17'3	85'9	19'3	9'9	33'6	370'9	1,139'3	†	74'9	43'0	117'5	44'4	165'9
B																										
Dinapore .	621 {	...	4'8	...	3'2	349'4	1'6	...	1'6	9'7	3'2	1'6	22'5	20'9	27'4	3'2	12'9	241'5	1,085'3	19'32	63'7	12'9	56'4	35'4	136'9	
Benares .	408 {	17'2	...	...	...	311'3	...	...	9'8	2'5	...	17'2	22'1	34'3	22'1	7'4	4'9	245'1	1,132'4	26'96	59'6	4'9	36'8	19'6	183'8
Allahabad .	1,100 {	...	...	...	13'6	287'3	'9	...	'9	7'3	9'1	3'6	1'8	13'6	7'3	8'2	1'8	16'4	286'4	848'2	58'1	15'5	100'0	52'7	118'2
Fort Allah- abad.	249 {	12'0	385'5	16'1	68'3	...	4'0	28'1	24'1	46'2	32'1	4'0	28'1	184'7	1,176'7	8'03	62'6	8'0	72'3	16'1	88'4
Fyzabad .	629 {	...	1'6	...	9'5	263'0	...	...	3'2	41'3	...	4'8	68'4	31'8	7'9	3'2	20'7	190'8	1,120'8	11'13	72'7	41'3	...	19'1	130'4
Sitapur .	424 {	2'4	...	...	...	205'2	2'4	...	4'7	...	...	...	11'8	2'4	7'1	...	14'2	150'9	679'2	2'36	40'1	4'7	61'3	23'6	61'3
Lucknow .	1,747 {	6'9	'6	...	16'6	121'9	'6	52'7	...	1'1	17'7	1'1	2'3	23'5	21'2	16'0	4'6	12'0	192'3	851'2	12'59	57'3	9'7	30'9	29'8	121'9
Cawnpore .	770 {	19'5	...	1'3	15'6	161'0	5'2	150'6	...	7'8	3'9	9'1	...	14'3	14'3	9'1	3'9	14'3	222'1	984'4	14'29	55'2	62'3	...	68'8	90'9
Fatehgarh .	212 {	4'7	316'0	...	37'7	9'4	4'7	23'6	28'3	240'6	830'2	4'72	36'1	14'2	28'3	33'0	165'1
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	6,160 {	5'7	'8	'2	11'0	229'4	1'9	37'8	'2	4'2	14'0	2'6	2'8	23'4	19'3	14'0	3'4	14'9	219'6	937'7	†	57'9	20'3	42'9	36'7	119'8

* Derived from the aggregates.

† Worked on the aggregates.

EUROPEAN TROOPS, 1901.

TABLE III—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals, see Table IV

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhoea.	
A Shahjahanpur.	169	...	...	...	11'8	106'3	...	...	...	...	11'8	5'9	...	5'9	17'8	5'9	...	...	230'8	710'1	32'2	76'9	17'8	20'6	106'8
Bareilly.	930	33'3	...	...	38'7	108'6	3'2	46'2	1'1	1'1	14'0	2'2	5'4	16'1	25'8	19'4	...	7'5	215'1	848'4	58'7	11'8	17'2	30'1	155'1
Roorkee.	406	39'4	...	...	4'9	182'3	...	2'5	...	2'5	4'9	7'4	...	4'9	2'5	17'2	...	2'5	189'7	815'3	60'9	17'2	41'9	46'8	83'1
Meerut.	1,583	...	...	...	13'3	201'5	'6	6'9	1'9	8'8	9'5	1'9	5'7	16'4	20'2	5'7	4'4	10'7	257'1	1,059'4	74'6	26'5	80'2	50'5	99'1
Delhi.	317	...	...	...	9'5	886'4	3'2	3'2	...	12'6	18'9	3'2	3'2	15'8	12'6	37'9	...	12'6	287'1	1,782'3	88'3	12'6	66'2	59'9	148'1
Umballa.	1,224	'8	...	...	19'6	302'2	...	9'0	...	3'3	9'0	7'4	5'7	62'1	21'2	28'6	4'1	18'0	162'6	1,151'1	68'0	20'4	6'5	44'1	91'1
B Jullundur.	536	...	...	...	1'9	177'2	...	...	1'9	...	9'3	5'6	3'7	46'6	9'3	11'9	1'9	9'3	220'1	854'5	52'1	7'5	31'7	65'3	81'5
Ferozepore.	1,040	...	...	...	22'1	914'4	...	12'5	...	2'9	34'6	2'9	7'7	26'9	15'4	15'4	...	11'5	304'8	1,708'7	90'4	42'3	34'6	70'9	157'1
Amritsar.	194	...	...	...	5'2	788'7	5'2	...	...	5'2	5'2	...	...	15'5	25'8	...	5'2	5'2	159'8	1,262'9	47'1	10'3	15'3	20'6	113'1
Meean Meer.	808	...	...	...	13'6	1,317'9	16'1	1'2	1'2	6'2	17'3	6'2	6'2	43'3	48'3	89'1	1'2	14'9	207'0	2,155'4	111'0	55'7	74'3	58'2	108'1
Fort Lahore.	107	...	...	...	18'7	1,420'9	...	...	...	...	18'7	...	...	9'3	28'0	18'7	9'3	...	102'8	1,953'3	60'2	9'3	9'3	28'0	56'1
Sialkot.	695	...	...	...	2'9	276'3	18'7	1'4	...	2'9	1'4	4'3	4'3	31'7	1'4	10'1	1'4	7'2	171'2	810'1	46'4	21'6	12'9	51'8	84'1
Rawalpindi.	2,612	'4	...	...	10'3	157'7	16'1	1'5	...	1'9	6'9	2'7	5'4	17'2	16'1	6'9	3'1	5'7	306'3	919'6	63'4	41'0	84'6	60'9	119'1
Campbellpur.	281	...	...	...	145'9	...	...	...	...	46'3	7'1	3'6	10'7	99'6	...	17'8	...	17'8	366'5	1,323'8	69'8	17'8	67'6	135'2	145'1
Attock.	144	...	...	...	138'9	13'9	...	...	...	13'9	...	...	...	20'8	34'7	13'9	...	13'9	284'7	819'4	47'7	34'7	48'6	48'6	152'1
GROUP VI.— UPPER SUB-HIMA- LAYA.	11,045	4'4	...	...	14'0	395'7	6'9	7'8	'5	4'8	11'6	3'9	5'2	28'5	18'7	19'0	2'3	9'8	253'0	1,178'8	†	29'9	51'2	55'0	116'1
A Nowshera.	722	81'7	...	...	5'5	231'3	6'9	66'5	1'4	5'5	18'0	1'4	1'4	34'6	8'3	33'2	...	5'5	225'8	1,227'1	75'0	47'1	29'1	63'7	85'1
Peshawar.	1,666	'6	...	...	18'7	237'9	18'7	120'2	...	6'2	12'5	1'9	6'2	11'2	10'0	8'1	...	2'5	191'2	993'8	58'3	8'7	39'9	41'1	101'1
Mooltan.	741	...	...	...	4'0	17'5	323'9	...	...	5'4	9'4	1'3	6'7	31'0	1'3	14'8	1'3	24'3	329'3	1,133'6	71'2	41'8	36'4	63'4	187'1
C Hyderabad.	390	...	...	...	2'6	2'6	469'2	...	...	2'6	10'3	...	...	41'0	20'5	12'8	2'6	28'2	253'8	1,228'2	67'5	48'7	41'0	51'3	112'1
Kurrachee.	998	...	...	...	1'0	4'0	316'6	1'0	...	2'0	6'0	2'0	1'0	14'0	11'0	1'0	...	8'0	203'4	841'7	47'5	19'0	72'1	30'1	82'1
GROUP VII.— N.-W. FRONTIER, INDUSVAL- LEY, AND N.-W. RAJ- PUTANA.	4,458	13'5	1'1	11'7	288'9	8'1	54'1	'2	4'7	11'2	1'6	3'8	21'5	9'4	12'1	'4	10'1	227'9	1,041'0	†	26'2	44'9	46'9	109'1
A Deesa.	279	3'6	...	...	7'2	573'5	3'6	555'6	...	10'8	3'6	...	3'6	17'9	7'2	43'0	...	14'3	351'3	2,068'1	94'0	7'2	96'8	78'9	168'1
Ahmedabad.	222	...	...	...	4'5	612'6	18'0	...	...	4'5	49'5	13'5	...	40'3	18'0	22'5	4'5	31'5	252'3	1,387'4	63'5	40'5	27'0	58'6	126'1
B Necmuch.	326	24'5	398'8	3'1	24'5	3'1	3'1	21'5	12'3	...	21'5	309'8	1,331'3	77'5	12'3	61'3	55'2	181'1
Nasirabad.	681	42'6	...	...	48'5	994'1	5'9	4'4	1'5	2'9	45'3	2'9	8'8	55'8	42'6	44'1	1'5	38'2	418'5	2,349'5	109'8	33'8	92'5	124'8	167'1
Muttra.	75	...	...	...	346'7	26'7	40'0	...	...	...	...	...	...	26'7	...	26'7	...	26'7	333'3	1,346'7	64'5	53'3	53'3	105'7	120'1
ARJA.	900	9'2	1'0	1'0	21'4	158'2	2'0	63'3	2'0	6'1	11'2	5'1	2'0	19'4	16'3	11'9	1'0	7'1	311'2	944'9	77'4	34'7	61'2	72'4	142'1	

* Derived from the aggregates.

† Worked on the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.				
asi	851	15'3	1'2	...	11'8	520'6	1'2	1'2	2'4	4'7	5'9	...	2'4	14'1	10'6	8'2	1'2	8'2	325'5	1,280'8	94'7	16'5	121'0	50'5	137'5				
ngong	274	...	...	...	3'6	131'4	...	...	...	10'9	7'3	...	...	7'3	7'3	18'2	...	7'3	335'8	799'3	58'2	3'6	189'8	25'5	116'8
ve	120	...	...	...	8'3	366'7	25'0	33'3	...	...	41'7	...	...	16'7	...	33'3	...	41'7	358'3	1,591'7	86'2	58'3	91'7	58'3	150'0
ow	1,634	1'2	...	...	37'3	430'8	55'1	3'1	...	1'8	9'2	6'1	1'8	33'7	34'9	28'2	3'7	22'0	258'3	1,369'6	80'9	16'5	66'1	66'7	108'9		
UP III.— SOUTH-EAST RAJ- STANA, CENTRAL DIA, AND UJARAT.	5,442	9'9	4	2	25'4	461'4	19'7	42'8	9	4'2	16'4	3'7	2'8	26'6	23'2	23'2	1'8	18'9	313'1	1,412'0	†	23'0	83'4	70'4	136'3				
A	288	...	...	...	17'4	479'2	17'4	6'9	...	...	...	...	3'5	20'8	20'8	10'4	...	10'4	524'3	1,586'8	86'9	52'1	149'3	62'5	260'4
Bulpo.	640	4'7	31'3	281'3	...	34'4	4'7	...	6'3	3'1	1'6	23'4	29'7	18'8	3'1	35'9	423'4	1,284'4	66'4	7'8	181'3	73'4	160'9			
ptee	840	...	...	1'2	11'9	413'1	...	158'3	1'2	1'2	7'1	3'6	1'2	10'7	6'0	25'0	...	11'9	275'0	1,269'0	76'7	2'4	77'4	31'0	164'3		
aldi	65	...	...	...	50'7	...	...	169'2	...	...	...	...	...	15'4	15'4	...	...	15'4	138'5	1,092'3	9'8	...	92'3	...	46'2
B	2,123	9'9	...	5	16'0	105'0	1'4	14'6	5	5	21'2	1'9	1'9	25'9	41'9	3'8	1'4	22'1	422'0	1,145'1	78'3	68'3	106'5	69'7	177'6				
rabad.	1,095	...	...	2'7	6'4	242'9	14'6	25'6	1'8	...	16'4	9	2'7	31'1	5'5	...	2'7	32'9	597'3	1,503'2	88'5	11'9	230'1	124'2	231'1		
ra	35	...	...	...	28'6	142'9	...	...	...	28'6	...	...	28'6	...	...	...	...	...	600'0	1,371'4	83'1	57'1	85'7	85'7	371'4
na	2,091	12'9	1'4	5	8'6	177'9	...	59'3	...	...	9'1	1'4	2'4	17'7	18'2	9'6	1'4	6'7	419'9	1,065'5	77'3	85'6	79'9	47'8	206'6		
ree	675	1'5	...	...	25'2	342'2	1'5	...	1'5	4'4	17'8	1'5	1'5	20'7	10'4	3'0	4'4	19'3	303'6	1,208'9	70'0	22'2	53'3	71'1	163'0		
ednagar	776	27'1	...	...	45'1	141'8	...	5'2	2'6	...	23'2	...	5'2	16'8	27'1	6'4	1'3	10'3	269'3	1,021'9	75'1	11'6	49'0	76'0	132'7		
UP IX.— WCCAN.	8,630	8'1	3	1'0	17'0	220'7	2'9	41'1	1'2	6	14'3	1'6	2'3	21'4	22'2	8'2	1'7	18'0	408'9	1,202'5	†	44'6	110'3	67'8	186'2				
aba	1,240	3'2	...	...	8	194'4	4'0	9'7	...	...	8'9	8	3'8	25'8	10'5	1'6	4'0	21'8	215'3	826'6	54'9	30'6	72'6	26'6	85'5
manore	70	...	...	...	214'3	...	...	...	...	...	...	...	14'3	14'3	57'1	...	...	28'6	185'7	771'4	62'1	42'9	14'3	28'6	100'0
icut	97	...	...	...	134'0	...	72'2	...	...	...	...	...	...	10'3	10'3	...	...	...	371'1	1,030'9	54'6	144'3	...	92'8	134'0
laperam	145	...	...	...	358'6	6'9	...	...	6'9	34'5	...	...	...	27'6	20'7	...	13'8	13'8	137'9	979'3	37'3	13'8	41'4	20'7	62'1
UP X.— WESTERN OAST.	1,552	2'6	6	206'8	3'9	12'2	...	6	10'3	6	3'2	24'5	13'5	1'3	4'5	20'0	216'5	851'2	†	53'6	36'7	62'5	30'3	87'0			
A	580	...	...	...	5'2	275'9	15'5	17'2	...	...	15'5	...	...	29'3	8'6	...	1'7	17'2	241'4	951'4	54'4	48'3	20'7	91'4	81'0
B	836	2'4	...	...	6'0	98'1	6'0	17'9	...	...	17'9	...	1'2	15'6	32'3	6'0	...	22'7	388'8	1,122'0	79'2	144'7	14'4	88'5	141'1
chisopoly Boer ward).	361	...	...	...	24'9	11'1	38'8	...	2'8	5'5	2'8	...	11'1	33'2	...	...	...	...	271'5	723'0	50'6	22'2	144'0	24'9	80'3
lavaram.	8	...	...	...	375'0	...	375'0	...	2'77	...	...	...	125'0	...	250'0	...	125'0	...	125'0	1,500'0	128'7	...	...	...	125'0
Thomas' font.	286	...	...	...	3'5	206'3	...	10'5	3'5	...	21'0	3'5	24'5	14'0	3'5	3'5	21'0	332'2	1,143'4	67'0	83'9	69'9	62'9	115'4		
dras	592	23'6	3'4	...	1'7	45'6	1'7	283'8	...	...	11'8	3'4	...	22'0	8'4	5'1	...	18'6	366'6	1,246'6	33'9	32'1	118'2	38'9	177'4		
UP XI.— SOUTHERN INDIA.	2,662	6'0	8	...	3'8	127'7	7'1	80'0	4	4	12'4	3'4	1'1	20'3	20'7	3'4	1'1	17'3	329'1	1,062'7	†	58'7	75'1	62'4	66'5	125'1			

* Derived from the aggregates.

† Worked on the aggregates.

EUROPEAN TROOPS, 1901.

TABLE III—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.	
Ranikhet .	986	12'2	...	...	19'3 2'03	43'6	1'0	15'2	3'0	...	15'2	2'0	2'0	12'2	14'2	12'2	...	5'1	165'3	609'5	45'8	10'1	31'4	18'3	105'3
Chaubattia.	307	...	...	...	3'3 3'26	32'6	...	19'5	...	...	16'3	...	...	202'0	9'8	29'1	...	45'6	179'2	850'6	47'3	26'1	...	94'5	58'6
Chakrata .	917	20'7	...	...	8'7	88'3	3'3	1'1	5'5	...	5'5	3'3	6'5	31'6	6'5	12'0	3'3	8'7	206'1	747'0	46'5	25'1	79'6	39'3	62'1
Lebong .	289	...	...	...	...	128'0	...	...	...	...	56'8	...	...	13'8	6'9	6'9	...	10'4	242'2	951'6	38'7	34'6	...	107'3	100'2
Solon .	166	...	...	...	...	283'1	...	...	...	...	6'0	...	...	42'2	18'1	6'0	...	12'0	162'7	831'3	36'0	6'0	12'0	84'3	60'3
Dagshai .	543	...	...	...	20'3 9'21	184'2	14'7	1'8	1'8	...	3'7	...	9'2	20'3	9'2	40'5	5'5	16'6	145'5	1103'1	63'5	12'9	22'1	58'9	51'4
Subathu .	336	...	...	...	...	264'9	3'0	...	3'0	...	26'8	...	...	20'8	20'8	26'8	6'0	20'8	357'1	1,247'0	63'5	26'8	20'8	104'2	205'1
Jutogh .	241	...	...	...	...	186'7	...	...	...	...	...	...	...	16'6	12'4	29'0	4'1	8'3	116'2	680'5	32'1	16'6	...	37'3	62'2
Khyragully.	60	...	...	...	16'7	16'7	...	...	...	...	33'3	16'7	...	...	...	...	...	...	166'7	383'3	30'7	66'7	16'7	...	83'1
Baragully .	51	...	...	...	19'6	...	...	...	...	...	...	...	...	19'6	...	...	...	...	117'6	392'2	29'8	...	19'6	58'8	39'5
Kuldunnah.	481	118'3	...	...	10'4 6'24	54'1	8'3	...	...	...	16'6	2'1	...	22'9	14'6	39'5	...	4'2	297'3	1,110'2	52'3	97'7	18'7	41'6	139'1
Kalabagh .	50	...	...	...	...	40'0	...	...	...	...	40'0	...	...	20'0	...	...	...	...	220'0	860'0	41'6	20'0	20'0	100'0	80'4
Camp Gharial }	434	9'2	...	...	9'2 2'30	30'0	...	...	...	...	11'5	...	6'9	11'5	4'6	4'6	...	2'3	278'5	656'7	46'9	119'8	30'0	34'6	92'1
Camp Thobba }	257	...	...	...	7'8 3'89	428'0	...	...	...	...	7'8	7'8	...	62'3	19'5	15'6	3'9	50'6	260'7	1,151'8	50'4	42'8	54'5	97'3	66'1
Camp Upper Topa. }	186	...	...	...	...	37'6	...	...	...	...	16'1	...	5'4	26'9	5'4	5'4	...	10'8	247'3	650'5	36'2	32'3	43'0	80'6	91'1
Camp Lower Topa. }	81	...	...	...	...	172'8	...	...	...	...	...	...	12'3	...	24'7	12'3	...	24'7	185'2	814'8	43'6	37'0	61'7	24'7	61'1
Khanspur .	481	...	...	...	8'3 2'68	52'0	4'2	2'1	...	2'1	14'6	...	22'9	4'2	10'4	4'2	...	8'3	139'3	463'6	25'1	16'6	31'2	35'3	56'1
Cherat .	358	...	...	...	16'8 11'17	61'5	25'1	...	...	...	16'8	...	...	5'6	16'8	5'6	...	5'6	61'5	308'7	46'5	2'8	11'2	16'8	30'1
Quetta .	2,446	10'6	...	...	12'3 4'09	159'0	...	1'2	...	...	5'7 1'23	4	10'6	20'6	15'1	9'8	1'2	11'9	248'2	770'6	58'0	27'4	100'2	43'7	76'1
Rama drug	23	...	...	...	...	304'3	...	43'5	...	...	...	...	...	130'4	...	...	...	...	217'4	1,043'5	32'1	43'5	43'5	87'0	43'1
GROUP XIIIa—HILL STATIONS.	8,692	13'6	...	...	12'0 3'57	122'9	3'2	3'2	1'2	...	11'8 1'04	1'2 '12	6'3 '69	26'5	12'5	14'6	1'5	12'1	212'8	780'9	49'3	31'4	50'9	48'4	82'1
Darjeeling .	313	...	...	...	3'2	383'4	3'2	3'2	...	...	25'6	19'2	3'2	67'1	35'1	25'6	6'4	86'3	287'5	1,450'3	91'8	...	28'8	191'7	67'1
Naini Tal .	143	...	...	...	...	216'8	...	...	...	...	...	...	7'9	35'0	21'0	14'0	25'0	230'8	895'1	64'8	28'0	7'0	125'9	69'1	...
Landour .	205	...	...	...	4'9	419'5	...	4'9	4'9	...	24'4	...	4'9	82'9	9'8	92'7	4'88	...	282'9	1,630'0	94'4	29'3	39'0	92'7	122'1
Kasauli .	354	87'6	...	...	28'2 11'30	404'0	2'8	...	...	...	11'3	5'6 2'82	...	48'0	22'6	25'4	5'6	36'7	200'6	1,627'1	104'3	19'8	2'8	81'9	56'1
Dalhousie .	846	...	...	...	10'6 2'36	625'3	3'5	8'3	5'9	...	48'5	2'4 1'18	3'5	56'7	21'5	14'2	1'2	37'8	160'8	1,488'2	71'8	29'6	17'7	56'7	56'1
Murree .	119	...	...	...	8'4 16'81	50'4	...	...	...	...	...	...	16'8	16'8	8'4	16'8	8'4	...	193'3	479'0	220'6	42'0	42'0	25'2	84'1
Taragarh .	48	...	...	...	62'5	1145'8	...	125'0	...	...	41'7	...	...	20'8	125'0	20'8	20'8	...	333'3	2,479'3	92'9	62'5	20'8	187'5	62'1
Mount Abu.	88	11'4 11'36	727'3	34'1	56'8	11'4	...	11'4	79'5	102'3	1,397'7	39'8	...	11'4	45'5	45'1
Pachmarhi .	119	...	...	...	8'4 8'40	277'3	16'8	...	...	...	8'4	...	...	...	8'4	...	8'4	16'8	252'1	823'5	49'1	...	117'6	42'0	92'1

* Derived from the aggregates.

† Worked on the aggregates.

STATIONS, GROUPS, AND COMMANDS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.
Poradbur .	143	...	...	...	7.0	97.9	...	76.9	7.0	...	76.9	7.0	...	7.0	14.0	14.0	14.0	28.0	174.8	958.0	64.9	28.0	7.0	97.9	42.0
Khandalla .	56	...	...	...	...	267.9	...	...	...	...	17.9	...	17.9	17.9	...	...	...	...	339.3	964.3	69.5	35.7	35.7	142.9	125.0
Wellington .	749	44.1	...	...	6.7	384.5	2.7	...	...	...	6.7	5.3	8.0	37.4	4.0	...	1.3	28.0	206.9	1,080.1	67.9	18.7	32.0	82.8	73.4
GROUP XII &— Hill Convalescent Depôts, and Sanitaria.	3,184	20.1	...	...	10.4	434.7	3.5	10.1	2.5	...	24.5	4.7	4.7	43.0	17.9	17.9	4.7	36.7	268.9	1,303.4	81.4	22.0	25.8	87.6	73.5
Troops marching, Bengal.	1,023	...	...	1.0	16.6	122.2	2.0	5.0	...	1.0	2.0	1.0	7.8	9.8	33.2	5.0	1.0	12.7	185.7	585.5	4.5	16.6	57.7	30.3	81.1
Troops marching, Punjab.	678	...	...	...	4.4	42.8	1.5	1.5	...	1.47	...	...	1.5	5.9	2.9	4.4	...	1.5	118.0	348.1	2.3	17.7	31.0	28.0	41.3
Troops marching, Madras.	217	...	...	...	9.2	806.5	...	...	...	9.2	...	4.6	36.9	9.2	...	...	...	18.4	216.6	1,447.0	25.9	64.5	46.1	27.6	78.3
Troops marching, Bombay.	168	...	...	...	6.0	113.1	...	71.4	...	6.0	...	...	6.0	11.9	47.6	11.9	...	11.9	160.7	631.0	6.1	23.8	11.9	17.9	107.1
Deolali Depôt	793	...	...	...	10.1	388.4	3.8	7.6	1.3	3.8	71.9	42.9	7.6	35.3	12.6	15.1	10.1	8.8	388.4	1,523.3	71.6	35.3	22.7	182.8	147.5
Poonamallee Depôt.	145	...	...	...	6.90	275.9	...	41.4	6.9	...	82.8	55.2	...	75.9	27.6	...	20.7	117.2	462.1	1,869.0	451.2	27.6	20.7	337.9	75.9
EXTRA INDIA ADAS .	1,010	4.0	...	...	13.9	279.2	5.9	...	...	3.0	21.8	6.9	2.0	28.7	30.7	17.8	...	14.9	131.7	1,022.8	59.3	15.8	29.7	31.7	54.5
India	60,838	8.9	2.02	2.3	12.8	293.2	6.3	24.4	8.8	2.6	14.4	3.4	4.0	25.5	21.3	13.6	2.5	16.3	276.0	1,104.3	66.9	33.2	64.4	58.3	120.0
BENGAL	19,000	7.3	4.37	4.16	13.3	223.8	3.5	21.9	1.1	3.5	11.8	2.9	3.2	23.1	25.6	14.7	3.3	16.6	258.8	979.5	62.3	23.2	66.3	47.6	121.6
PUNJAB	16,431	9.4	...	...	12.6	339.3	8.2	17.2	7	3.2	13.5	2.8	5.2	28.8	14.7	18.7	1.8	12.0	229.1	1,008.5	62.9	32.6	38.2	55.5	102.9
MADRAS	10,282	12.8	2.10	2.19	6.4	368.6	5.7	28.6	8	1.4	17.1	3.6	3.1	27.3	26.2	2.4	2.6	22.9	372.8	1,278.1	79.0	55.1	97.9	80.6	139.1
BOMBAY	15,115	7.6	2.20	2.3	16.6	319.7	8.0	32.7	5	1.6	16.9	4.5	4.2	23.7	19.6	14.3	2.3	15.9	282.6	1,149.0	68.8	31.7	68.0	59.2	123.8
China Expeditionary Force.	727	4.1	...	...	2.8	83.0	24.8	2.8	...	1.38	1.38	...	...	41.3	23.4	22.0	1.4	8.3	301.2	945.0	60.8	44.0	63.3	24.8	169.2
Rawalpindi	2,612	...	...	...	1.5	8.0	8	3	5	1	1.4	1.6	7	1.0	2.0	2	4	6	23.3	63.4	63.4	4.9	4.8	5.5	8.2
Secunderabad	2,123	8	...	...	2.2	4.2	1	1.8	...	...	2.4	1.6	1	2.7	2.5	1	1	2.9	28.9	78.3	78.3	7.1	5.7	7.6	8.5
Poona	2,091	6	...	...	1.4	6.2	...	3.0	...	...	1.3	1.3	2	1.9	1.6	3	3	6	36.3	77.3	77.3	9.6	5.7	6.1	14.8
Quetta	2,446	6	...	...	2.7	6.0	...	...	...	...	5	1	8	1.1	1.1	6	2	1.0	25.8	58.0	58.0	3.9	8.5	6.0	7.3

* Derived from the aggregates.

† Worked on the aggregates.

‡ 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.	Elastic 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.	Veneral Diseases.	ALL CAUSES.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.	Tenla.	Other Entozoa.
Port Blair . . .	140	14	...	8	1	2	12	58	...	2	4	...	6	...
Rangoon . . .	909	62	...	1	...	222	1	3	9	3	1	23	47	1	3	17	483	1,277	29	100	120	149	1
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,046*	61	...	1	...	235	...	8	1	3	10	5	1	33	47	1	3	17	500	1,335	29	193	124	155	1	
Thayetmyo . . .	310	...	...	...	2	102	...	...	...	1	3	2	1	18	3	1	...	2	71	325	13	17	9	32	...
Meiktila . . .	320	...	...	...	2	125	...	...	...	...	17	...	...	1	15	4	1	5	111	482	12	47	21	31	...
Fort Dufferin . . .	703	4	1,020	3	5	15	1	4	8	17	1	5	27	215	1,647	63	41	52	59	2
Shwebo . . .	548	...	...	...	...	197	18	...	...	2	10	2	8	22	20	1	3	9	154	700	35	18	28	72	10
Bhamo . . .	25	...	...	...	...	13	...	...	...	...	1	...	...	...	...	...	...	...	12	31	4	3	1	4	...
GROUP II.—BURMA ISLAND.	1,005*	8	1,521	18	2	8	46	6	12	49	51	7	5	43	554	3,185	128	126	111	109	23
Fort William . . .	1,077	1	...	...	...	125	24	2	...	3	12	6	2	8	19	5	2	27	543	1,143	68	171	57	245	1
Fort Fulta . . .	10
Fort Chingrikhal . . .	49	...	...	...	...	6	...	...	...	...	...	...	...	1	3	...	...	...	20	24	1	...	...	9	...
Dum-Dum . . .	577	...	...	...	...	13	163	7	...	1	5	3	1	19	57	16	7	29	113	506	10	29	22	42	...
Barrackpore . . .	312	...	...	...	...	2	128	6	...	3	4	2	8	7	95	18	11	12	26	542	8	28	11	39	3
GROUP IV.—BENGAL AND ODISHA.	2,015*	3	...	...	...	503	31	8	...	7	21	11	4	25	174	39	20	68	751	2,207	87	258	90	325	4
B																										
Dinapore . . .	621	...	...	...	...	3	217	1	...	1	6	2	1	14	13	17	2	8	150	674	8	35	22	85	2
Benares . . .	406	...	...	...	...	7	...	...	...	...	4	1	...	7	14	9	3	2	100	451	2	15	8	73	4
Allahabad . . .	1,100	...	...	...	...	15	316	1	...	1	8	10	4	9	8	9	3	18	315	933	17	110	58	130	1
Fort Allahabad . . .	349	3	96	4	17	...	1	7	6	10	8	1	7	46	293	3	18	4	22	3
Fyzabad . . .	620	6	166	1	26	...	3	43	20	5	3	12	120	705	26	...	12	82	...
Sitapur . . .	424	1	5	1	3	...	6	64	288	2	26	10	25	...
Lucknow . . .	1,247	...	...	...	...	12	1	...	...	...	3	2	4	41	37	28	8	27	335	1,487	17	54	52	213	5
Cawnpore . . .	770	...	...	...	...	15	...	...	...	...	6	3	7	...	11	7	3	11	171	758	48	...	53	70	...
Fatehgarh . . .	212	...	...	...	...	1	67	...	...	...	2	1	...	...	5	...	...	...	51	276	3	6	7	35	...
GROUP V.—GANGETIC PLAIN AND CHITTA NAOPUR.	5,150*	25	5	1	68	1,412	12	222	1	20	86	16	17	144	110	86	21	92	1,252	5,776	125	251	216	238	15	

* Derived from the aggregates.

EUROPEAN TROOPS, 1901.

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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	All Causes.	Primary Syphilis.	Soft Chancres.	Secondary Syphilis.	Gonorrhoea.	Treats.
Deesa	370	1	...	...	2	160	1	155	...	...	...	...	5	2	12	...	4	98	577	...	27	22	47	...
Ahmedabad	322	...	...	...	1	130	4	...	...	...	...	...	9	4	5	7	56	308	...	...	13	28	...	...
Neemuch	335	...	...	...	8	130	...	...	...	...	...	...	7	4	...	7	101	454	...	4	20	18	50	...
Nasirabad	681	39	...	...	33	677	4	2	1	2	31	2	6	38	19	20	1	285	1,600	...	...	85	114	...
Multra	75	...	...	...	26	2	3	...	...	...	...	...	3	...	2	...	2	35	101	...	4	4	8	9
Agra	980	9	1	1	31	155	2	62	2	6	11	5	2	10	10	11	1	7	305	905	34	66	71	140	
Jhansi	851	13	1	...	10	443	1	1	2	4	5	...	2	2	9	2	7	377	1,990	44	103	43	117	1	
Nowgong	374	...	...	...	1	30	...	...	...	3	2	...	...	2	5	...	2	94	210	...	1	34	7	33
Indore	120	...	...	...	1	44	3	4	...	...	5	...	...	...	4	...	5	43	191	...	7	11	7	18
Mhow	1,634	2	...	...	61	704	90	5	...	3	15	10	3	55	57	40	6	36	422	3,235	27	108	100	178
GROUP VIII—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	5,449*	54	2	1	135	2,511	107	233	5	23	85	20	15	145	120	120	10	103	1,704	7,584	125	454	353	712	14
Sauger	285	...	...	...	5	138	5	2	...	...	...	...	1	6	6	3	...	3	151	457	15	43	18	75
Jubbulpore	640	...	...	...	3	20	180	...	24	3	...	4	2	15	19	12	1	25	271	822	5	120	47	105
Kamptee	840	...	...	...	1	10	347	...	133	1	1	6	3	1	9	5	21	10	231	1,000	4	65	25	138
Sitabaldi	65	...	...	...	33	...	...	...	...	...	...	...	...	1	1	...	1	9	71	...	6	...	3	...
Secunderabad	2,113	21	...	...	34	273	3	31	1	1	45	4	4	55	89	8	5	47	896	2,431	145	225	145	377
Belgam	1,005	...	...	...	7	260	10	23	2	...	18	1	3	24	6	...	30	654	1,646	...	253	136	253	13
Satara	35	...	...	...	1	5	...	...	...	...	...	...	...	...	...	...	...	21	48	...	3	3	3	13
Poona	2,091	47	3	1	18	372	...	124	...	...	19	3	5	37	38	30	3	14	878	2,228	179	167	100	424
Kirkee	675	...	...	...	17	231	1	...	...	3	12	1	1	14	7	2	3	13	209	816	15	35	48	110
Ahmednagar	770	...	...	...	35	110	...	4	2	...	18	...	4	13	21	5	1	8	200	703	9	38	59	103
GROUP IX.—DECCAN.	8,630*	70	0	0	147	1,095	25	355	10	5	123	14	30	185	192	71	15	155	3,520	10,318	281	952	581	1,607	
Colaba	1,240	4	...	...	1	241	5	12	...	...	11	1	4	21	15	2	5	27	207	1,015	...	30	90	35
Connaree	70	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	13	54	...	3	1	3	7
Calcut	97	...	...	...	13	...	7	...	...	...	...	...	...	...	...	...	...	35	100	...	14	...	9	13
Mallapuram	145	...	...	...	53	1	...	...	...	...	...	...	...	...	...	...	...	141	343	...	6	3	3	9
GROUP X—WESTERN COAST.	1,552*	4	...	...	1	221	6	10	...	...	10	1	5	25	21	2	7	31	330	1,311	57	97	47	135

* Derived from the aggregates.

EUROPEAN TROOPS, 1901.

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 lung.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	All Causes.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.	Tenia.	Other Entozoa.				
Quetta . . .	2,445	30	30	389	...	3	14	1	20	49	37	34	3	30	607	1,285	67	245	107	188	3	...				
Ramaedrug . . .	23	...	...	...	7	...	1	...	...	...	...	...	3	...	...	...	...	...	5	24	1	1	3	1	...
GROUP XII.—HILL STATIONS.	5,593	118	104	1,068	10	28	10	1	103	10	55	230	109	127	12	105	1,850	6,788	373	443	421	714	21	...				
Darjeeling . . .	313	...	...	...	1	120	1	1	...	...	5	6	1	21	11	8	1	27	90	454	...	9	60	21	...
Naini Tal . . .	143	...	...	...	31	...	...	...	...	...	...	...	1	...	5	3	...	5	33	128	4	1	18	10	...
Landour . . .	205	...	...	...	1	86	...	1	1	...	5	...	1	17	2	10	...	6	58	335	6	8	19	25	...		
Kasauli . . .	354	31	...	...	10	143	...	3	...	...	4	1	...	17	8	0	...	12	71	570	7	1	30	34	1	
Dalhousie . . .	846	...	...	...	9	539	3	7	5	...	41	3	3	48	18	12	1	34	120	1,150	35	15	48	48	...		
Murree . . .	119	...	...	...	1	6	...	1	...	...	...	...	2	2	1	...	...	...	23	57	5	5	3	10	...
Taragarh . . .	48	...	...	...	3	55	...	6	...	...	3	...	1	6	1	1	...	...	15	119	3	1	9	3	...
Mount Abu . . .	88	...	...	...	1	64	3	5	...	...	...	...	1	...	1	...	...	7	9	123	...	1	4	4	...
Pachmarhi . . .	119	...	...	...	1	33	...	...	...	...	1	...	...	...	1	...	...	3	30	98	...	14	5	21	...
Purnedhur . . .	143	...	...	...	1	14	...	11	1	...	11	1	...	1	2	2	...	4	25	127	...	1	14	6	...		
Khandalla . . .	56	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	19	54	...	3	3	7	...
Wellington . . .	740	30	...	...	5	289	2	...	...	...	5	4	6	20	3	...	1	21	155	809	14	24	62	53	...
GROUP XIII.—HILL CONVALESCENT DEPOTS, AND SAMBATIA.	3,184	64	...	...	32	1,384	11	22	8	...	28	15	15	127	57	57	15	117	655	4,150	70	82	279	234	1			
Troops marching, Bengal.	1,033	...	...	...	17	125	2	5	...	1	3	1	3	10	24	3	1	12	100	599	17	59	21	83	1		
Troops marching, Punjab.	678	...	...	...	3	20	1	1	...	...	...	...	1	4	2	3	...	1	80	230	12	21	19	28	...
Troops marching, Madras.	217	...	...	...	9	175	...	...	...	...	...	...	1	8	2	...	...	4	47	314	14	10	6	17	...
Troops marching, Bombay.	108	...	...	...	1	10	...	12	...	...	...	...	1	8	3	...	...	3	27	106	4	3	3	15	...
Deolali Depot . . .	793	...	...	...	8	308	3	6	1	3	57	34	6	28	10	13	8	7	308	1,200	28	18	145	117	...		
Peenamalice Depot . . .	145	...	...	...	40	...	6	1	...	12	8	...	11	4	...	3	27	67	271	6	4	3	49	21	...		

* Derived from the aggregates.

STATIONS AND COMMANDS.	Average annual strength.	1. ADMISSIONS.													2. DEATHS.													3. CONSTANTLY SICK.												
		Influenza.	Cholera.	Small-pox.	Etiotic Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abcess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	All Causes.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhoea.	Tania.	Other Ectozoa.														
EXTRA INDIA.	1,030	4	...	...	14	252	0	...	...	2	22	2	2	29	21	18	...	15	133	1,033	15	30	32	55	5	...										
INDIA.	50,838	2	...	...	125	911	36	14	3	1	87	50	12	70	115	27	30	61	1,409	4,107	212	245	207	555	2	1												
		530	12	30	775	17,895	321	1,485	47	157	879	207	241	1,553	1,204	820	135	980	15,780	67,181	2,021	3,021	3,544	7,200	148	7														
		18'83	'00	'60	117'07	649'11	25'08	67'10	6'01	8'25	92'11	35'28	17'01	79'95	95'87	28'80	17'64	69'26	1,410'04	4,069'00	205'90	300'15	260'55	543'35	4'73	'80														
		12'75	2'74	29'10	55'07	13'28	25'96	16'48	53'06	19'20	38'29	63'97	27'15	16'79	27'31	12'72	41'54	25'55	30'79	22'11	37'20	27'94	37'75	27'10	11'07	41'71														
BENGAL.	19,000	135	7	8	252	4,253	67	415	21	67	225	50	61	435	487	280	63	316	4,917	12,511	440	1,259	908	2,310	49	2														
UNAE.	15,431	151	...	3	207	5,575	134	282	11	52	221	40	55	474	241	207	37	107	3,764	18,050	535	622	912	1,690	33	2														
SADRAS.	10,282	122	2	5	65	3,172	50	204	8	14	176	37	32	231	260	25	27	235	2,523	12,141	257	1,007	829	1,430	20	2														
OMBAY.	15,125	115	3	4	211	4,835	122	404	7	24	255	68	63	359	207	217	25	241	4,275	17,379	479	1,028	895	1,872	27	1														
INDIA EXPEDITIONARY FORCE.	727	3	...	3	3	64	18	2	...	...	10	3	7	30	17	16	1	6	219	687	32	46	18	122	4	...												

GROUPS AND COMMANDS.	1. STRENGTH.												2. CONSTANTLY SICK.												TOTAL.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,015	1,050	1,071	984	955	1,065	1,060	1,067	1,078	1,058	988	1,187	74'84	78'00	66'06	59'60	58'51	51'70	66'87	68'26	66'80	68'74	73'37	108'58	841'43
" II.—BURMA INLAND.	1,810	1,946	1,328	1,127	1,839	2,168	2,171	2,148	2,115	2,124	2,070	2,032	212'42	219'96	181'38	103'34	139'90	191'07	189'48	182'77	179'20	201'80	211'23	203'51	2,216'06
" IV.—BENGAL AND ORISSA.	1,577	2,398	2,087	1,951	1,961	1,955	1,979	1,982	1,966	2,023	2,127	2,298	142'41	163'07	111'49	112'57	111'35	137'51	131'72	158'32	181'90	182'55	177'40	209'94	1,820'24
" V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	4,490	6,489	6,492	6,178	6,235	6,122	6,141	6,214	6,395	6,617	7,034	5,515	376'04	324'80	318'82	326'95	360'64	395'70	395'48	363'78	351'40	353'00	393'83	363'91	4,276'41
" VI.—UPPER SUB-HIMALAYA.	14,993	13,372	13,800	10,323	7,974	7,794	7,665	7,487	7,611	10,017	15,310	16,191	1,109'89	981'60	806'87	681'11	608'90	553'43	490'45	526'94	593'94	721'42	1,041'37	1,073'69	9,189'61
" VII.—N.W. FRONTIER, INDUS VALLEY, AND NORTH WESTERN RAJPUTANA.	5,813	5,625	4,752	5,175	3,662	3,520	3,433	3,359	3,420	4,600	4,824	5,308	445'23	355'89	292'95	296'36	261'48	188'53	221'92	213'72	193'26	219'84	308'30	294'02	3,291'51
" VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	5,718	5,890	5,302	5,532	5,394	5,336	5,375	5,439	5,466	5,562	5,938	4,356	569'13	486'74	351'04	388'27	397'31	380'58	378'61	423'40	520'73	541'20	520'63	563'98	5,521'62
" IX.—DECCAN.	8,581	8,789	8,602	9,284	9,068	8,383	8,492	8,584	8,566	8,679	8,603	7,923	758'30	716'82	652'77	652'34	663'73	676'13	679'12	686'54	745'83	707'20	668'10	612'29	8,219'86

Note.—Constantly sick x 365 = total annual loss of service.
 * Derived from the aggregates.
 † Remaining + admitted = total treated; remaining + admitted + died out of hospital = total cases.
 ‡ Details not available.

EUROPEAN TROOPS, 1901.

TABLE IV—concluded.

GROUPS AND COMMANDS.	1. STRENGTH.												TOTAL.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
GROUP X.—WESTERN COAST	1,607 99'10	1,764 88'89	1,415 74'68	1,555 86'10	1,517 80'04	1,478 75'33	1,459 70'54	1,460 79'61	1,328 81'96	1,612 77'68	1,651 89'67	1,573 93'67	18,619 997'27
.. XI.—SOUTHERN INDIA	2,328 143'35	2,379 116'60	2,141 100'68	2,024 114'44	2,109 131'07	2,733 150'09	2,918 187'68	2,911 191'58	2,929 184'04	3,038 192'99	3,092 189'33	3,342 173'22	31,944 1,875'07
.. XIIa.—HILL STATIONS	2,762 171'41	2,800 187'73	5,188 259'33	9,133 392'87	13,505 602'93	13,948 661'19	13,921 663'03	13,925 678'33	13,759 691'01	9,234 482'72	3,544 201'10	2,586 150'41	104,305 5,142'06
.. XIIb.—HILL CONVALESCENT DEPÔTS, AND SANI- TARIA.	970 118'74	1,144 116'77	1,716 138'96	3,723 296'76	4,962 368'72	5,052 420'69	4,952 416'95	4,943 423'94	4,728 388'72	3,715 262'12	1,372 104'76	928 51'98	38,205 3,109'11
INDIA	59,576 4,492'02	61,465 4,091'06	60,029 3,607'28	60,889 3,723'28	61,231 3,925'71	61,102 3,968'51	61,065 4,021'74	61,007 4,142'84	61,037 4,320'18	60,946 4,176'21	61,534 4,237'38	60,177 4,122'57	730,058 48,838'78
BENGAL	17,716 1,183'48	19,720 1,071'42	18,903 947'56	19,026 1,099'80	19,374 1,212'93	19,236 1,206'17	19,109 1,240'31	19,139 1,217'19	19,333 1,274'49	19,386 1,264'68	19,097 1,252'97	17,958 1,238'46	227,997 14,299'46
PUNJAB	16,726 1,162'39	16,530 1,014'76	16,296 903'78	16,151 935'34	16,705 1,076'77	16,847 1,050'62	16,759 1,037'77	16,692 1,098'92	16,680 1,110'56	16,341 951'31	15,455 1,022'41	15,994 1,034'28	197,176 12,398'91
MADRAS	9,725 895'34	10,102 874'31	9,913 757'65	10,163 723'31	10,212 740'65	10,334 791'74	10,471 810'46	10,486 821'44	10,414 816'99	10,411 807'33	10,365 835'07	10,789 869'40	123,385 9,743'67
BOMBAY	15,409 1,250'81	15,113 1,130'57	14,917 998'29	15,549 964'83	14,940 905'38	14,685 919'98	14,726 933'20	14,690 1,005'29	14,610 1,118'14	14,808 1,152'89	16,617 1,126'93	15,436 980'43	181,500 12,486'74

TABLE V.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS. SANITARY DEFECTS, IMPROVEMENTS, and SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table III.

BENGAL COMMAND.

Barrackpore.—The station is low-lying and malarious, with numerous tanks. The surface-drainage is sufficient in the dry season, but quite insufficient in wet weather. A portion of the cantonment has no deep drainage, and is in consequence damp and swampy. Flies abound in the cook-houses on account of the doors not being kept closed. Cleanliness and supervision are not satisfactory. The latrines are very foul and insanitary,—supervision not being sufficient. They are built on a faulty plan, and having been constructed of bricks are very liable to contamination.

The General Officer Commanding the District.—The provision of an incinerator and of rubbish bins will be considered when funds are available. Steps are being taken to improve the latrine buildings.

Delhi.—Wire-gauze was supplied for the doors and windows of the cook-houses. Kitchen tables should be covered with zinc. The complaint as regards the intermittent supply of water has been remedied. The levels of some of the surface drains should be altered. Zinc tubs should be replaced by water-tanks with cocks in the bath-rooms and station hospital. These will be included in next year's estimates.

Jhansi.—The condition of the cantonment is on the whole satisfactory. The state of the present drains in the *sadar* bazaar will be improved when funds permit.

Darjeeling.—Improvements in all the drains that are not lined with stone are being carried out as funds are available. The provision of a *dhobie*-house is desirable.

PUNJAB COMMAND.

Ferozepore.—In November 1901, the command sanitary officer reported on the existing water-supply from wells. His report has been sent to the commanding royal engineer for report on certain points.

Meean Meer.—A project was prepared for a pipe-water supply drawn from the municipal reservoir at Lahore, and was submitted in September 1901. As a very good supply for the asylum was obtained from a well not very distant from the "Bari Doab" canal, it was recommended that a supply from wells from that locality should be obtained, so as to have an independent system for the cantonment.

Kasauli.—It is proposed to pump water from the Sappers and Miners' spring, up to tanks to be erected on the highest hills in Kasauli, and thus to give a pipe-water supply under pressure. The scheme is before the Government of India.

Murree.—No defects reported.

MADRAS COMMAND.

Meiktila.—The quality of the water-supply, as last reported upon by the Chemical Examiner to Government, is "fair"; but the water is liable to contamination by its proximity to the town of Meiktila, bungalows, out-houses, villages, and in consequence of its being used for the manuring of land, and for bathing purposes. It is now however filtered by a sand filter. The intake is by a well in the bed of the lake which receives the drainage of 20 villages and much cultivated land. A well, sunk on the bank of the lake, would remedy the matter. A new water-supply scheme with filter beds, etc., has recently been started and this is the first time the question of this well has been brought to notice.

Mandalay.—The following defects have been brought forward: (1) The want of proper drainage. (2) The existence of open channels and tanks within the fort. (3) The need of a pure water-supply. (4) The need of proper *dhobies'* tanks. (5) The permanent latrine system, which is out of date and objectionable in principle. (6) The impossibility of dealing satisfactorily with venereal disease, while the prostitutes are permitted to live on the moat road, just outside the fort, but beyond the cantonment limits,—the municipal committee having no powers corresponding to those given to the Cantonment Committee by Chapters XI and XII of the Cantonment Code. (7) The housing of some of the transport followers in old Burmese "kyoungs", near the north-east corner of the moat, is bad, the houses being old and unsatisfactory. (8) The bazaar in the eastern town near the transport lines and not far from the channel by which the moat is supplied with water, is in an unsatisfactory state. (9) The bazaar is a hotbed of venereal disease. The following are the measures adopted or proposed for remedying the above defects: (1) A drain under the moat has been constructed, and other remedial measures are, it is believed, under consideration. (2) The expense of filling in the channels and tanks in question is prohibitive. (3) This is of paramount importance, and should have been carried out years ago. A committee is now going into the details of the scheme. (4) Plans and estimates were prepared and provision made for these tanks in this year's budget, but the execution has been postponed for want of funds. (5) A scheme was worked out for the abolition of the present fixed latrines, and the substitution of movable ones of corrugated galvanized iron; but nothing has yet been done for want of funds. (6) It is hoped that Government will, before long, sanction the extension of Chapters XI and XII of the Cantonment Code to municipal limits,—a measure recommended by a mixed committee of civil and military officers in 1900, but vetoed. (7) This is sufficient until proper accommodation is provided. (8) It is hoped that well-water will soon be used and distributed by pipes. (9) This is a very difficult matter to deal with.

Pallavaram.—No defects reported.

Poonamallee.—No defects reported.

EUROPEAN TROOPS, 1901.

TABLE V—concluded.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS. SANITARY DEFECTS, IMPROVEMENTS, and SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table III.

BOMBAY COMMAND.

Deesa.—The bazaar bakery is in the house of a native, and is in a very dirty condition. The kneading room is filled with rubbish and clothing, and is used as a sleeping room for the natives: the building is generally most insanitary. This house should not be occupied for living in, or a new bakery should be built. It is proposed to transfer the bakery to a building in the old B. I. married quarters which was formerly used as a bake-house. The soda-water factories that are owned by Messrs. Cursetjee and Sons, are run on the best sanitary lines, and they alone should be allowed in the European Cantonment.

The General Officer Commanding the District.—The bake-house is now clean and in good order. The owner of the second sodawater factory should be made to get a proper filter etc.

Nasirabad.—The water-supply is deficient, and the cantonment hospital is in an insanitary condition.

The General Officer Commanding the District.—It is proposed to acquire the "Bir" tank and to reconstruct the hospital premises to remedy the above two defects; but the grant has been refused for the latter.

The Lieutenant-General Commanding the Forces.—I fear the question of money will put off any action with regard to the remedy of the former defect.

Satara.—The tanks in the fort (except the well used for drinking purposes, which is covered in) are entirely unprotected, and are filled with debris and stagnant water. These tanks are likely to be a fertile source of malaria, and should either be cleaned out and then covered in, or else be kept empty. The deepening of the well from which water is supplied to the fort is necessary.

Taragarh.—The latrines in the village are unsatisfactory, and are imperfectly constructed. The surrounding ground becomes contaminated, and is likely to give rise to epidemic diseases.

The General Officer Commanding the District.—I am in communication with the Commissioner, Ajmer-Merwara, on the subject, the result will be forwarded on receipt.

TABLE VI.

INFLUENZA by months, stations, groups, and commands.

TABLE VII.

CHOLERA by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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.
Rangoon	1	...	...	18	21	11	4	...	...	...	...	7	62	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS	1	...	...	18	21	11	4	...	...	...	...	7	62	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort William	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Barrackpore	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA	1	2	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
B
Dinapore	3	...	...	...	3
Benares	7	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Fyzabad	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Sitapur	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow	12	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	1	...	...	1
Cawnpore	15	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	27	8	...	...	...	...	...	...	...	...	35	...	...	...	...	...	...	...	1	3	1	...	...	5
A
Bareilly	17	14	...	...	...	...	...	...	...	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Roorkee	1	14	...	...	...	...	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...
Umballa	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B
Rawalpindi	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYA	1	19	28	...	...	...	...	...	...	1	49	...	...	...	...	...	...	...	...	...	...	...	...	...
A
Nowshera	39	17	3	...	...	...	...	...	59	...	...	...	...	...	...	...	...	...	...	...	...	...
Peshawar	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	39	17	3	1	...	...	...	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...
A
Deesa	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B
Nasirabad	12	17	...	...	...	...	...	...	...	...	29	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra	1	6	2	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	1	...	...	...	1
Jhansi	13	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	1	...	...	1
Mhow	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT	15	30	6	2	...	1	...	...	...	...	54	...	...	...	...	...	...	...	...	1	1	...	...	2
B
Secunderabad	16	5	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	1	9	12	3	2	...	...	...	...	...	...	...	27	...	...	...	...	...	...	...	...	3	...	...	...	3
Kirkee	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmednagar	21	...	...	...	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	1	9	33	4	18	5	...	...	...	...	...	...	70	...	...	...	...	...	...	...	...	3	...	...	...	3

* 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 AND GROUPS.	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.
Colaba	3	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X—WESTERN COAST	3	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore A	1	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Madras B	...	6	8	...	...	...	...	...	...	...	...	...	14	...	...	...	...	...	...	...	...	1	...	1	2
GROUP XI—SOUTHERN INDIA	...	6	8	...	...	...	...	1	...	...	...	1	16	...	...	...	...	...	...	...	...	1	...	1	2
Ranikhet	8	4	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...
Chakrata	9	10	...	...	...	...	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...
Kuldunnah	7	26	11	6	7	...	...	...	...	57	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial	4	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	26	...	...	...	...	...	...	...	...	26	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIIa.—HILL STATIONS	26	28	40	11	6	7	...	...	...	...	118	...	...	...	...	...	...	...	...	...	...	...	...
Kasauli	1	27	2	...	1	...	...	...	...	...	31	...	...	...	...	...	...	...	...	...	...	...	...
Wellington	25	1	2	1	1	...	...	...	...	...	...	33	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIIb.—HILL CONVALESCENT DEPÔTS, AND SANITARIA	...	25	1	3	28	3	...	1	...	...	...	3	64	...	...	...	...	...	...	...	...	...	...	...	...
EXTRA INDIA.
Aden	3	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
INDIA	5	41	85	131	188	49	13	11	3	1	...	12	539	...	...	...	...	...	...	...	4	5	2	1	12
BENGAL	3	77	56	2	...	...	...	...	...	...	138	...	...	...	...	...	...	...	1	4	2	...	7
PUNJAB	13	92	30	9	9	...	...	...	1	154	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	1	31	9	20	38	17	4	1	...	...	...	11	132	...	...	...	...	...	...	...	1	...	1	...	2
BOMBAY	4	10	73	21	2	...	...	1	3	1	...	...	115	...	...	...	...	...	...	...	3	...	...	...	3

TABLE VIII.

ENTERIC FEVER by months, stations, groups, and commands.

TABLE IX.

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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.
Port Blair . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	1	...	...	1	2	...	8
GROUP I.—BURMA COAST AND BAY ISLANDS . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	1	...	...	1	2	...	8
Thayetmyo . . . . .	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . . . .	...	...	...	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin	1	...	...	...	1	...	...	...	...	...	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	1	...	...	...	1	...	1	1	2	...	2	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort William . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
Dum-Dum . . . . .	...	1	1	3	2	...	1	...	...	1	2	2	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Barrackpore . . . . .	...	1	...	...	...	...	...	1	...	...	...	...	2	...	...	...	1	...	1	1	...	2	...	...	1	6
GROUP IV.—BENGAL AND ORISSA . . . . .	...	2	1	3	2	...	1	1	...	1	2	2	15	2	...	...	1	...	1	1	...	2	...	...	1	8
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . . . .	...	...	...	1	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad	4	1	...	...	4	...	...	1	1	3	2	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Allahabad . . . . .	...	...	...	...	...	...	...	1	2	...	...	3	...	...	...	7	3	3	1	1	2	...	...	...	...	17
Fyzabad . . . . .	...	...	...	...	1	1	3	...	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow	4	2	2	6	2	2	2	1	4	...	4	29	...	2	15	41	9	3	5	10	4	2	1	...	...	92
Cawnpore	2	1	...	2	...	...	...	1	2	3	1	12	...	...	...	3	7	48	30	13	12	3	...	...	...	116
Fatehgarh . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	1	...	...	4	1	...	...	...	...	...	...	...	...	8
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	10	4	3	7	8	3	4	5	6	4	6	8	68	1	2	15	55	20	54	36	26	18	5	1	...	233
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahjahanpur . . . . .	...	...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly	2	...	...	3	1	...	2	1	1	3	8	15	36	1	4	1	...	...	1	2	11	9	4	6	4	43
Roorkee . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Meerut	1	...	...	12	6	2	...	...	...	...	...	21	1	1	...	...	1	3	...	1	...	...	3	1	11	
Delhi . . . . .	...	...	...	...	...	1	...	2	...	...	...	3	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Umballa	4	...	3	2	1	3	...	1	1	1	4	4	24	1	1	2	4	1	...	...	...	...	...	...	2	11
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jullundur . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ferozapore . . . . .	...	1	...	4	7	3	5	2	...	1	...	23	...	...	4	1	3	1	2	2	...	...	...	...	...	...
Amritsar . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	13
Meean Meer . . . . .	...	...	...	2	4	1	2	...	...	...	1	11	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Fort Lahore . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sialkot . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	4	1	...	4	3	3	6	1	1	1	2	27	...	...	...	1	3	...	...	...	...	...	...	...	...	4
GROUP VI.—UPPER SUB-HIMALAYA	11	2	4	28	23	13	15	7	3	8	15	26	155	3	6	7	7	8	6	4	15	9	4	9	8	86
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowshera	1	1	...	1	1	...	...	...	...	...	...	4	...	2	...	4	5	2	12	19	3	...	...	1	48	
Peshawar . . . . .	...	1	2	7	2	7	3	2	2	...	4	30	...	...	...	4	...	10	55	100	23	1	...	...	193	
Mooltan . . . . .	...	...	...	5	...	...	...	...	1	5	1	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurrachee . . . . .	...	...	2	1	...	...	...	...	...	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	1	2	4	15	3	7	3	2	3	5	6	1	52	...	2	...	8	5	12	67	119	26	1	...	1	241
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deesa	1	...	...	...	...	...	...	1	...	...	...	2	...	...	1	...	3	14	8	9	76	43	1	...	155	
Ahmedabad . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* 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—concluded.

ENTERIC FEVER by months, stations, groups, and commands.

TABLE IX—concluded.

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

STATIONS AND GROUPS.	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																										
Nemuch . . . . .	...	...	1	1	1	...	...	3	...	1	1	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad	1	...	2	2	6	1	...	4	11	2	3	2	33	1	1	...	...	...	...	...	...	...	...	1	...	3
Muttra . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra	2	...	...	...	3	2	1	1	3	5	2	2	21	3	...	5	7	10	5	16	2	3	2	6	3	62
Jhansi	3	1	...	1	2	...	...	...	1	1	...	1	10	...	...	...	1	...	...	...	...	...	...	...	...	1
Nougong . . . . .	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Indore . . . . .	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	1	1	...	1	...	...	...	1	...	4
Mhow	2	4	2	6	6	5	3	10	10	4	4	5	61	1	...	...	3	...	1	...	...	...	...	...	...	5
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	9	5	5	11	18	8	4	17	26	14	11	10	138	5	1	7	11	15	20	27	11	79	45	8	4	233
A																										
Saugor	2	...	2	1	...	...	...	...	...	...	...	...	5	...	1	1	...	...	...	...	...	...	...	...	...	2
Jubbulpore	2	1	...	4	2	3	5	2	1	...	...	...	20	...	...	2	...	2	5	5	4	1	2	1	...	22
Kamptee	4	...	...	...	2	2	1	...	...	1	...	...	10	4	3	8	19	28	35	7	12	12	3	...	...	133
Sitabaldi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	3	4	...	...	11
B																										
Secunderabad	4	2	5	7	3	4	2	1	1	2	2	1	34	1	2	6	3	2	2	...	2	3	1	3	6	31
Belgam . . . . .	...	...	...	...	1	1	4	...	1	...	...	...	7	...	...	...	...	5	8	5	1	8	...	1	...	28
Satara . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	1	2	1	1	1	1	...	...	7	4	...	1	18	10	2	10	15	12	9	21	15	16	9	5	...	124
Kirkee	1	1	1	1	1	3	3	4	2	...	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmednagar . . . . .	...	...	2	6	4	6	4	4	2	1	2	4	35	...	...	1	...	...	2	...	1	...	...	...	...	4
GROUP IX.—DECCAN	14	7	11	20	14	19	19	18	11	4	4	6	147	16	8	28	38	47	58	40	36	40	18	11	9	355
Colaba	1	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	2	1	...	1	3	...	...	1	...	12
Calicut . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	1	...	...	...	...	1	...	...	...	7
GROUP X.—WESTERN COAST	1	...	...	...	...	...	...	...	...	...	...	...	1	1	3	4	3	1	1	...	1	4	...	...	1	19
A																										
Bellary . . . . .	...	...	...	...	1	...	1	1	...	...	...	...	3	...	...	...	...	...	2	1	4	1	1	1	...	10
Bangalore . . . . .	...	...	1	...	2	1	...	1	...	...	...	...	5	...	2	...	...	1	...	2	4	2	1	2	1	15
B																										
Trichinopoly . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	1	2	...	3	3	14
Pallavaram . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	3
St. Thomas' Mount . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2	3	
Madras . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	10	40	65	26	3	5	5	7	6	1	...	168
GROUP XI.—SOUTHERN INDIA . . . . .	...	1	2	...	3	1	1	2	...	...	...	...	10	...	15	40	65	27	5	12	11	16	8	7	7	213
Ranikhet . . . . .	...	...	1	1	2	4	2	3	2	4	...	...	19	...	...	...	...	1	2	2	2	3	5	...	...	15
Chaubottia . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	4	...	...	...	...	...	...	...	...	6
Chakrata . . . . .	...	...	...	1	5	1	...	...	1	...	...	...	8	...	...	...	...	1	...	...	...	...	...	...	...	1
Dagshai . . . . .	...	...	...	2	...	3	3	2	1	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	1
Sobathu . . . . .	...	...	...	3	4	3	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Baragully . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuldannah . . . . .	...	...	1	1	1	2	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial . . . . .	...	...	...	1	...	1	2	...	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Thebba . . . . .	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Upper Topa . . . . .	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Khanspur . . . . .	...	...	...	...	1	1	...	2	...	...	...	...	4	...	...	...	...	...	1	...	...	...	...	...	...	1
Cherat . . . . .	...	...	...	...	...	...	2	1	3	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta . . . . .	...	...	...	1	...	3	7	7	9	2	1	30	...	...	...	1	1	1	...	...	...	...	...	...	...	3
Kamandrug . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
GROUP XIII.—HILL STATIONS . . . . .	...	...	1	11	15	15	15	16	14	14	2	1	104	...	...	1	1	6	4	5	2	3	5	...	1	28
Darjeeling . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Landour . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1
Kasauli . . . . .	...	...	...	3	...	6	...	1	...	...	...	...	10	...	...	...	1	...	...	...	...	...	...	...	...	7
Dalhousie . . . . .	...	...	...	3	1	3	1	...	1	...	...	...	9	...	...	...	2	2	2	1	...	...	...	...	...	...
Murree . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	6
Taragarh . . . . .	...	...	...	...	...	...	...	2	1	...	...	...	3	...	...	...	...	1	...	...	3	...	2	...	...	5
Mount Abu . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	1	...	2	...	...	...
Pachmarhi . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Parandhur . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	4	...	1	3	...	...	...	1	1	...	11
Wellington . . . . .	...	...	1	2	...	1	1	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIII.—HILL CONVALESCENT DEPÔTS, AND SANTARIA . . . . .	...	...	1	9	2	11	2	2	3	3	...	...	33	...	1	5	1	4	7	2	1	4	1	6	...	32

STATIONS AND COMMANDS.	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	6	...	1	2	...	...	...	...	...	1	5	2	17	...	...	3	...	...	...	...	...	...	1	1	...	5
{ Punjab	3	3	...	1	1
{ Madras	2	2
{ Bombay	1	1	6	4	12
Deolali Depôt	1	...	2	1	...	...	...	...	...	...	...	4	8	...	...	...	...	1	...	...	...	...	...	3	2	6
Poonamallee „	1	4	1	6
EXTRA INDIA.																											
Adca	2	5	1	1	2	1	2	14
INDIA	56	28	37	110	91	77	66	73	68	54	54	62	776	29	39	119	199	135	170	105	222	207	89	48	34	1,486	
BENGAL	28	8	8	36	31	17	15	16	14	22	25	32	252	8	8	29	64	37	69	66	48	39	18	20	10	416	
PUNJAB	9	4	6	45	29	36	27	12	11	9	11	10	207	1	4	6	14	15	16	72	122	26	1	...	5	282	
MADRAS	5	3	8	9	10	7	9	4	4	2	4	1	66	2	18	52	74	36	16	18	14	28	10	13	13	294	
BOMBAY	14	13	15	22	21	17	15	41	39	21	14	10	251	18	9	32	47	47	69	39	38	114	60	15	6	494	

TABLE X.

TABLE XI.

INTERMITTENT FEVER by months, stations, groups, and commands.

REMITTENT FEVER by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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 . . .	1	3	1	...	4	3	2	...	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon . . .	16	21	9	12	1	22	15	18	27	22	28	31	222	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	17	24	10	12	5	25	17	18	27	22	28	31	236	...	...	...	...	...	...	...	...	...	...	...	...	...
Thayetmyo . . .	2	4	8	18	7	33	9	9	8	3	1	...	102	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . .	14	3	2	3	2	34	30	25	19	20	10	10	176	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin . . .	101	130	44	24	65	56	57	40	60	151	177	125	1,030	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo . . .	20	17	14	6	19	28	36	19	10	9	17	4	197	...	2	1	1	7	3	...	2	...	1	...	1	18	
Bhamo . . .	10	3	...	...	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND . . .	147	157	68	51	93	151	132	97	97	183	205	137	1,518	...	2	1	1	7	3	...	2	...	1	...	1	18	
Fort William . . .	17	6	6	13	7	14	18	30	41	18	12	13	195	5	2	2	2	...	...	4	2	...	...	4	3	24	
" Fulta . . .	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Chingrikhal . . .	4	2	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dum-Dum . . .	8	18	15	20	9	19	16	12	11	13	10	12	163	2	...	...	2	...	1	1	1	...	...	...	...	7	
Barrackpore . . .	14	6	2	5	4	11	16	13	14	10	27	16	138	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA . . .	44	32	23	38	20	44	50	55	66	41	49	41	503	7	2	2	2	2	...	5	3	1	...	4	3	31	
B																											
Dinapore . . .	2	2	5	14	17	33	51	37	28	17	5	3	217	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Benares . . .	4	1	1	7	17	19	28	15	7	7	7	4	127	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad . . .	8	5	13	12	19	58	51	18	23	65	20	26	316	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Fort Allahabad . . .	10	4	1	2	7	1	5	7	14	15	21	9	96	1	...	...	...	...	...	...	...	1	...	2	...	4	
Fyzabad . . .	2	6	5	36	25	10	29	20	7	10	7	3	166	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sitapur . . .	3	2	5	15	11	10	11	3	14	7	4	2	87	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Lucknow . . .	1	6	9	16	6	14	65	30	21	15	23	7	213	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Cawnpore . . .	13	3	3	1	1	...	1	9	23	18	32	20	124	...	1	...	...	...	...	...	...	...	1	2	...	4	
Fatehgarh . . .	5	3	1	8	5	4	3	2	8	13	12	3	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . .	48	32	43	111	108	149	257	141	145	171	131	77	1,413	1	1	1	...	1	...	...	...	1	3	4	...	12	
A																											
Shahjahanpur . . .	...	...	...	...	...	...	...	...	...	6	12	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly . . .	4	2	5	14	16	10	5	2	16	7	9	11	101	...	...	...	1	1	1	...	...	...	...	...	...	...	3
Roorkee . . .	3	1	1	1	2	2	9	2	12	23	13	5	74	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut . . .	8	5	3	22	24	22	12	17	68	75	51	12	319	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Delhi . . .	28	16	1	27	22	22	11	38	43	42	21	10	281	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Umballa . . .	38	23	35	20	25	35	41	49	55	79	57	23	480	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B																											
Jullundur . . .	14	6	5	4	6	...	1	11	14	12	12	10	95	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ferozepore . . .	70	15	22	39	84	73	57	168	78	144	132	69	951	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar . . .	3	6	...	11	14	7	4	23	21	42	18	4	153	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Meerut Meer . . .	104	63	70	41	95	80	36	73	89	133	156	81	1,681	...	...	...	4	6	1	1	1	...	...	...	...	13	
Fort Lahore . . .	6	3	1	14	23	21	5	18	29	18	12	3	153	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sialkot . . .	26	5	8	13	13	12	14	6	7	9	41	38	192	2	...	...	5	1	3	...	...	...	...	1	1	13	
Rawalpindi . . .	10	10	16	18	15	21	13	21	51	80	99	58	412	...	2	2	...	5	2	3	7	16	3	2	48		
Campbellpur . . .	...	...	2	...	1	2	8	8	7	9	2	2	41	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Attock . . .	...	...	...	3	1	2	3	3	...	2	2	4	20	...	...	...	3	...	...	...	...	...	...	...	...	...	2
GROUP VI.—UPPER SUB-HIMALAYA . . .	374	155	169	227	341	309	219	439	400	681	637	330	4,371	2	2	2	5	8	16	5	4	8	17	4	3	76	
A																											
Nowshera . . .	32	15	9	10	8	19	19	4	14	16	18	3	167	...	...	...	...	...	...	4	1	...	...	...	...	...	5
Peshawar . . .	10	2	21	49	59	15	30	13	30	79	46	28	382	2	3	3	4	3	3	2	4	2	4	...	...	30	
Mooltan . . .	37	38	49	18	14	12	7	2	21	10	9	11	240	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C																											
Hyderabad . . .	10	6	17	20	28	14	9	7	8	33	20	11	183	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurrachee . . .	63	32	15	20	40	31	27	13	12	27	19	17	316	...	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP VII.—N.W. FRONTIER, INDUS VALLEY, AND N.W. RAJPUTANA . . .	152	93	111	117	149	91	92	45	85	171	112	70	1,488	2	3	3	4	3	4	2	8	3	4	...	...	36	

* Stations where neither Intermittent Fever nor Remittent Fever occurred are not shown in these tables. For the annual ratios, see Table III.

STATIONS AND GROUPS.	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	30	9	3	6	14	10	7	13	9	23	11	23	160	...	...	1	...	...	...	...	...	...	...	...	...	1
Ahmedabad	7	10	9	9	5	3	6	13	20	25	12	17	136	1	...	1	1	...	...	...	...	...	...	...	...	4
B																										
Neemoch	16	9	13	12	3	10	2	23	16	20	3	3	130	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad	60	50	42	50	37	33	27	45	99	140	72	22	677	...	...	...	2	...	...	...	...	1	...	...	1	4
Muttra	2	...	1	...	2	2	...	2	5	7	3	2	26	...	...	...	...	1	...	...	...	...	...	1	...	2
Agra	4	3	5	16	10	7	4	8	28	26	33	11	155	...	...	...	...	...	...	...	...	1	1	...	...	2
Jhansi	16	4	9	11	22	26	40	33	112	94	56	20	443	...	...	...	...	...	1	...	...	...	...	...	...	1
Nowgong	4	1	1	...	1	...	3	9	8	4	4	1	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Indore	1	5	33	2	3	11	5	10	7	3	1	1	44	...	...	...	...	...	...	...	1	...	...	2	...	3
Mhow	80	30	24	19	22	35	52	53	74	124	146	40	794	2	12	12	8	6	2	5	10	6	15	5	4	90
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	220	121	110	125	110	127	146	214	378	470	341	140	2,511	3	12	14	11	7	3	5	11	8	19	8	6	107
A																										
Sangor	2	5	...	6	5	12	11	14	35	26	20	2	138	...	...	1	...	...	1	...	...	1	...	2	...	5
Jubbulpore	31	13	17	21	11	3	7	5	21	30	16	5	180	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamptee	26	5	2	6	18	28	72	40	73	51	24	2	347	...	...	...	...	...	...	...	...	...	...	...	...	...
Sitabaldi	...	...	...	...	3	1	1	33	6	15	3	1	33	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Secunderabad	20	35	28	25	23	7	15	11	14	21	11	12	223	...	...	...	...	...	...	...	...	...	2	...	1	3
Belgam	27	40	21	19	7	12	28	24	8	39	27	14	266	1	...	...	1	...	7	2	...	1	2	...	2	16
Satara	1	2	...	2	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...
Pooná	5	6	8	12	20	23	75	63	74	45	24	17	372	...	...	...	...	...	...	...	...	...	...	...	...	...
Kirkee	15	11	9	18	11	13	26	22	25	34	20	27	231	...	...	1	...	...	...	...	...	...	...	...	...	1
Ahmednagar	1	1	1	10	24	2	3	11	4	26	15	12	110	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	128	118	80	120	122	101	238	193	260	287	160	92	1,905	1	...	2	1	...	8	2	...	2	4	2	3	25
A																										
Colaba	2	30	18	17	24	38	26	24	10	10	11	9	241	...	...	...	...	2	...	1	...	2	...	...	...	5
Cannanore	2	...	...	1	2	...	2	2	1	2	1	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Calicut	...	...	...	...	6	3	2	1	...	1	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Malapuram	...	...	4	11	10	13	4	3	...	1	2	4	52	...	...	...	...	...	...	...	...	...	1	...	...	1
GROUP X.—WESTERN COAST	26	30	22	29	42	54	34	30	11	14	15	14	321	...	...	...	...	2	...	1	...	2	1	...	...	6
A																										
Bellary	7	9	21	3	14	9	17	16	11	30	10	13	160	...	...	1	...	7	...	...	...	...	...	...	1	9
Bangalore	1	4	4	3	6	6	9	12	8	13	9	7	82	2	...	1	...	...	...	...	...	...	...	1	1	5
B																										
Trichinopoly	...	...	...	...	...	3	1	...	...	2	1	2	9	...	...	...	...	...	2	...	...	1	1	...	4	
Pallavaram	...	2	...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...
St. Thomas' Mount	1	2	3	8	12	2	8	6	6	5	3	3	59	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	5	7	3	1	1	1	...	...	...	2	6	1	27	...	...	...	...	...	...	1	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA	14	24	31	15	33	21	36	34	25	52	29	26	340	2	...	2	...	7	2	...	1	...	1	2	2	19
A																										
Ranikhet	1	...	4	3	4	7	5	6	7	5	1	...	43	...	...	...	...	...	...	...	...	1	...	...	...	1
Chaubattia	...	...	2	...	6	...	...	...	1	1	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Chakrata	...	...	3	11	15	12	16	13	5	6	...	...	81	...	...	1	...	...	2	...	...	...	...	...	...	3
Lebong	...	...	1	7	1	6	3	6	4	5	3	1	37	...	...	...	...	...	...	...	...	...	...	...	...	...
Solon	...	...	7	10	5	12	7	5	1	...	...	...	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Dagshai	...	1	3	22	13	16	8	14	17	4	1	1	100	...	1	...	2	4	1	...	...	...	...	...	...	8
Subathu	...	1	2	7	20	14	16	7	12	10	...	...	89	...	...	...	...	...	...	...	1	...	...	...	...	1
Jutogh	...	...	4	11	6	13	3	6	2	...	...	...	45	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Kuldunnah	...	...	7	1	2	1	5	4	6	...	...	...	26	...	...	2	1	...	...	1	...	...	...	...	4	
Kalabagh	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial	...	...	4	3	...	4	...	1	1	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...
Thobba	...	...	9	23	27	20	17	14	...	...	...	...	110	...	...	...	...	...	...	...	...	...	...	...	...
Upper Topa	...	...	2	1	...	2	...	1	1	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...
Lower Topa	...	...	5	2	1	3	2	...	1	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...
Khanpur	...	...	...	11	2	4	2	5	1	...	...	...	25	...	...	...	...	1	1	...	...	...	...	...	2	
Cherat	...	...	...	4	4	7	6	1	...	...	...	...	22	...	...	...	...	6	2	1	...	...	...	...	9	
Quetta	9	10	7	11	12	20	28	94	121	52	22	3	389	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamandrug	...	...	4	2	1	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIa.—HILL STATIONS	10	12	26	101	138	123	142	183	204	97	27	5	1,068	...	1	1	4	5	10	3	1	3	...	...	28	

TABLE XII.

PNEUMONIA by months, stations, groups, and commands.

TABLE XIII.

DYSENTERY by months, stations, groups, and commands.

STATIONS *AND GROUPS.	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.
Rangoon . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	6	5	7	5	4	6	5	2	2	2	...	3	47
GROUP I.—BURMA COAST AND BAY ISLANDS . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	6	5	7	5	4	6	5	2	2	2	...	3	47
Thayetmyo . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	...	...	...	1	...	...	...	3
Meiktila . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	1	...	4	3	1	2	1	...	...	15
Fort Dufferin . . . . .	...	1	...	...	2	...	...	...	...	...	...	1	...	4	...	...	...	1	2	4	3	1	2	...	...	17
Shwebo . . . . .	...	1	2	3	...	1	...	...	1	...	...	...	...	...	3	2	1	4	2	5	3	...	...	...	...	20
GROUP II.—BURMA INLAND	1	3	3	...	2	1	...	...	1	...	2	...	13	5	2	4	3	1	9	6	8	9	5	1	2	55
Fort William	2	...	...	...	...	...	...	...	...	...	...	...	2	5	3	1	...	...	1	2	2	3	1	1	...	19
Chingrikhal . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	3
Dum-Dum . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	2	3	2	4	8	7	5	9	8	4	...	...	57
Barrackpore . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	4	2	2	3	2	3	13	11	18	17	12	8	95
GROUP IV.—BENGAL AND ORISSA	2	1	1	...	...	...	...	...	...	...	...	...	4	12	10	5	6	4	7	22	20	25	29	21	13	174
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	1	1	1	4	3	1	...	1	...	13
Benares . . . . .	...	...	1	6	...	...	...	...	...	...	...	...	7	1	...	2	1	1	1	4	...	1	3	1	...	14
Allahabad . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2	1	...	...	1	2	...	3	...	...	1	...	...	8
Fort Allahabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	2	3	...	...	1	...	...	10
Fyzabad . . . . .	...	...	...	...	1	...	1	...	1	...	...	...	3	1	...	1	5	4	1	1	...	3	1	2	1	20
Sitapur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Lucknow . . . . .	...	1	...	1	...	...	1	...	...	...	...	1	4	6	...	1	5	2	4	...	4	4	5	3	3	37
Caanpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	3	1	1	...	...	...	11
Fatehgarh . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	2	...	...	5
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . . . .	...	1	1	7	1	...	2	...	2	...	...	3	17	9	1	2	15	12	10	7	21	11	10	12	9	119
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahjahanpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	3
Bareilly	2	1	...	...	...	...	...	...	...	...	1	1	5	1	1	...	1	2	1	4	5	5	...	4	...	24
Roorkee . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Meerat	1	...	1	1	1	1	...	...	1	1	2	...	9	1	...	1	4	5	3	...	5	5	5	2	...	32
Delhi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	1	...	...	4
Umballa . . . . .	...	...	4	...	...	...	...	...	1	...	2	...	7	4	...	2	4	5	1	1	...	1	1	3	4	26
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jallander . . . . .	...	...	...	...	...	...	...	...	...	...	2	2	...	1	...	...	...	...	...	...	1	1	...	2	...	5
Ferozepore . . . . .	...	...	1	1	...	1	...	1	...	1	3	...	8	1	1	...	2	2	2	2	...	2	2	...	...	16
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	5
Meean Meer	1	...	...	...	...	...	...	...	2	1	1	...	5	...	2	2	8	3	3	1	10	8	2	...	...	39
Fort Lahore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	3
Sialkot	1	...	...	...	...	...	...	...	1	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
Rawalpindi	1	1	1	1	...	...	1	...	...	...	0	14	...	2	...	1	3	2	6	2	6	3	4	4	9	42
Campbellpur . . . . .	...	...	1	...	...	1	...	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Attock . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	1	...	1	...	5
GROUP VI.—UPPER SUB-HIMALAYA	6	2	6	4	2	1	2	1	1	5	4	23	57	12	3	7	14	22	21	12	13	30	27	17	28	208
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowshera . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	...	1	...	...	...	1	1	...	...	...	6
Peshawar	2	...	2	1	2	...	...	...	...	...	1	2	10	1	1	1	4	...	1	...	1	1	4	1	1	16
Mooltan	1	...	1	...	...	...	1	...	...	...	...	2	5	...	...	...	...	1	...	...	...	...	...	...	...	1
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	2	...	...	...	4	8
Kurrachee	1	...	...	...	...	...	...	...	...	...	...	...	1	2	2	...	4	1	...	...	2	...	...	...	...	11
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	4	...	3	1	2	...	1	...	...	...	1	5	17	5	4	1	10	2	2	...	3	4	5	1	5	42
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deesa . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	...	2	...	...	...	...	...	...	1	1	...	...	...	2
Ahmedabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	4
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neemuch . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	2	1	2	...	1	7
Nasirabad	1	1	1	...	...	...	...	...	...	...	3	...	6	3	1	2	2	3	2	1	3	6	2	2	2	20
Agra . . . . .	...	...	...	...	1	1	...	...	...	...	...	2	...	2	1	...	1	...	...	...	3	5	3	1	...	16
Jhansi . . . . .	...	...	1	...	...	...	...	...	...	...	1	...	2	...	1	1	...	1	1	1	1	2	1	...	...	9
Nowgong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	2
Mhow . . . . .	...	2	...	...	...	...	...	...	...	...	1	...	3	2	3	2	10	4	1	5	5	10	2	6	7	57
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	1	1	3	1	...	1	1	...	1	...	2	4	15	9	4	6	13	9	4	8	13	22	14	12	12	126

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios, see Table III.

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TABLE XII—concluded.

PNEUMONIA by months, stations, groups, and commands.

TABLE XIII—concluded.

DYSENTERY by months, stations, groups, and commands.

STATIONS, GROUPS, AND COMMANDS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												TOTAL.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A																										
Saugor						1							1				1			2	1	1			6	
Jubbulpore	1												3	3	2	3	2	1	2	1	1				16	
Kamptee					1								1			1					1				5	
Sotabaldi																				1					1	
B																										
Secunderabad		1	2		1								4	5	10	8	10	5	3	13	10	9	10	4	86	
Belgam	1								1	1			5	1	1		3				1	1			6	
Poona		1					1	1			1		5	2	1			2	4	17	4	3	3	1	38	
Kirkee							1						1		1	1	1			1	3				7	
Ahmednagar	2		1				1						4		1	4	1	3	6	4	2				21	
GROUP IX.—DECCAN	5	1	4		2	1	3	1		1	1	1	20	12	15	12	19	14	10	24	37	20	16	7	102	
Colaba		1				1			1		1		4	1		1	1		5	1		1	1	1	13	
Cannanore							1						1				1			1	1		1		4	
Calcut														1											1	
Mallapuram																	1		1		3		1		3	
GROUP X.—WESTERN COAST						1	1			1		1	5	2		1	1	3		6	2	1	1	3	21	
A																										
Bellary														1						2		2			5	
Bangalore										1			1	1	3	7	2	3	1	2	2	2	2	1	27	
B																										
Trichinopoly																	1	2	1	2	1		2	3	12	
Paliavaram	1												1					1			1				3	
St. Thomas' Mount										1			1		1						2		1		4	
Madras																1	1				3				5	
GROUP XI.—SOUTHERN INDIA	1									2			3	1	3	3	8	4	6	4	4	11	2	5	55	
Raichet								1	1				2			1		6		1	2	1	2	1	14	
Chaubuttia															1	1	1								3	
Chskrata				2	1				1	2			6			2	1				1	1			6	
Lehong															1								1		2	
Solon																1	1				1				3	
Dagshai				1	2		2						5			2			2				1		5	
Subathu																1	2	1	2	1					7	
Jutogh																				1	1	1			3	
Baragully																			1			1			1	
Kuldannah																		3	1	2	1				7	
Camp Gharial					2				1				3				1	1							2	
" Thobba																	1	1	1		1	1			5	
" Upper Topa					1								1				1								1	
" Lower									1				1								1	1			2	
Khanspue					5	1	2		3				11				4	1							5	
Cherat																	2	1	1			2			6	
Quetta	2		8	1		1	3	1	1	3	4	2	26		1	4	1		3	1	3	8	10	5	37	
GROUP XII a.—HILL STATIONS	2		8	4	11	2	7	1	7	7	4	2	55		1	8	10	22	8	11	9	14	17	8	109	
Darjeeling							1						1				1			4	4	2			11	
Naini Tal								1					1			2	1		1			1			5	
Landour							1						1			1			1						3	
Kasauli																1	1	2			2	2			8	
Dalhousie				1	2								3				6	1	4	2	2	3			18	
Murree					1					1			2		1										1	
Jaagarh																				3	2	1			6	
Pachmarhi																			1						1	
Porandhur															1								1		2	
Khandalla																									1	
Wellington	1		2	1			1		1				6	1		2									3	
GROUP XII b.—HILL CONVALESCENT DEPÔTS, AND SANITARIA	1		3	2	3	1	2	1	1	1			15	1	2	6	8	4	5	4	11	11	4	1	57	
Troops marching, (Bengal		1										7	8	8	4	3							6	13	34	
" Punjab			1										1		1	1									2	
" Madras				1									1			1	1								2	
" Bombay												1	1		1	5	1						1		8	
Deolali Depôt	1	3								1	1		6	1	3	3							1	2	10	
Poonamaltee Depôt														1			1	1					1		4	
EXTRA INDIA.																										
Aden			1		1								2	3	4	1	4	1	3	3	2	2	3	1	31	
INDIA	23	16	34	20	24	8	19	4	13	18	15	47	241	87	63	76	119	103	93	112	145	162	136	97	1,264	
BENGAL	6	4	3	11	3	4	4	1	4	4	3	14	61	37	19	22	30	37	28	38	58	65	50	45	487	
PUNJAB	6	1	9	6	10	1	7	1	5	6	3	24	85	12	6	9	31	33	23	10	17	20	15	20	241	
MADRAS	3	6	7	2	3	1	2		2	3	3		32	20	21	25	28	20	24	29	35	20	13	12	269	
BOMBAY	8	5	15	1	2	2	6	2	2	5	6	9	63	18	17	20	30	13	16	20	45	42	26	20	297	

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TABLE XV.

A.—STRENGTH, ADMISSIONS from ALL CAUSES, ADMISSIONS from ENTERIC FEVER, of the Army of India in 1901, in relation to AGE and LENGTH of RESIDENCE in INDIA.

	BY AGE.						BY LENGTH OF RESIDENCE.						
	Under 20.	20 and less than 25.	25 and less than 30.	30 and less than 35.	35 and less than 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	1,578	23,910	26,581	6,422	1,694	444	4,201	4,599	9,854	10,255	8,708	19,356	2,756
Per cent. of total	3	39	45	11	3	1	7	8	16	17	15	32	5
1896-1900	3	50	37	7	2	1	15	18	17	16	13	18	3
Admissions from all causes	1,479	28,740	31,427	4,477	754	235	6,460	4,947	11,786	12,090	9,461	20,700	1,615
Admissions from Enteric Fever	20	405	281	35	3	1	153	58	168	118	89	155	4
All causes per 1,000	937.3	1,249.0	1,182.3	69.1	445.1	574.3	1,537.7	1,075.7	1,196.1	1,178.9	1,086.5	1,069.4	593.3
Enteric Fever per 1,000	12.7	17.6	10.6	5.5	1.8	2.3	36.4	12.6	17.0	11.5	10.2	8.0	1.5
Liability to Enteric Fever	25.15	34.8	20.99	10.89	3.56	4.55	37.45	12.96	17.49	11.83	10.49	8.23	1.54
Enteric Fever per cent. of all causes	1.35	1.4	.89	.78	.40	.30	2.37	1.1	1.43	.98	.94	.75	.24

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.	PER CENT. OF STRENGTH.			STRENGTH.	RATIO PER 1,000.			RATIO PER CENT. OF TOTAL ADMISSION.			
	Men.	Women.		Age.	Length of residence.	Married. †		All causes.	Admissions.		Vener. Diseases.	Enteric Fever.		
									Under 25 years.	Under 5 years.			Vener. Diseases.	Enteric Fever.
1871-72	9,134	920	1871	49	...	11.19	56,206	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	7,568	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	57,838	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	56,097	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	1.30		
1887-88	11,729	459	1887	52	73	3.84	63,315	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	1.58		
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		
1898-99	16,911	648	1898	54	81	...	67,741	1,436.9	362.9	36.9	25.26	2.57		
1899-1900	3,369	168	1899	53	76	...	67,697	1,148.7	313.4	20.6	27.28	1.79		
1900-1901	5,958	185	1900	45	69	...	60,553	1,143.2	298.1	16.0	26.07	1.40		
1901-1902	18,594	438	1901	42	63	...	60,838	1,104.3	276.0	12.8	24.99	1.16		

* In ordinary years the departures plus the deaths nearly balance the arrivals.

† Return abolished.

‡ On the 1st May of each year.

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TABLE XVI.

RELATION of MORTALITY to AGE and LENGTH of RESIDENCE in INDIA.

CAUSES OF DEATH.	A.—AGE.										B.—LENGTH OF RESIDENCE IN INDIA.															
	(a) DIED PER 1,000.					LIABILITY IN PERCENTAGES.					(g) DIED PER 1,000.					(h) LIABILITY IN PERCENTAGES.										
	Under 20.	20 and less than 25.	25 and less than 30.	30 and less than 35.	35 and less than 40.	40 and upwards.	Under 20.	20 and less than 25.	25 and less than 30.	30 and less than 35.	35 and less than 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 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 and upwards.
Enteric Fever	'63	5'00	2'63	2'18	59	2'25	5	38	20	16	4	17	6'90	3'48	5'38	3'41	2'76	2'22	'73	28	14	22	14	11	9	3
Cholera	'63	'17	'15	'31	...	2'25	18	5	4	9	...	64	'95	...	...	'29	'23	'10	'30	49	...	...	15	12	5	19
Dysentery	'63	'78	1'09	1'25	59	4'50	7	9	12	14	7	51	1'19	'43	1'01	1'40	'40	1'08	'73	19	7	16	23	7	17	11
Intermittent and Remittent Fevers	...	'39	'56	'47	...	2'25	...	11	15	13	...	61	'24	...	'81	'49	'11	'62	'36	9	...	31	19	4	24	14
Alcoholism	...	'09	'66	'31	1'18	2'25	...	2	2	0	30	58	'24	...	'10	...	...	'21	1'09	15	...	6	...	...	13	66
Tubercle of the lungs	...	'43	'41	'62	'59	2'25	...	10	10	14	14	52	'24	...	'51	'29	'34	'72	'36	10	...	21	12	14	29	15
Nervous Diseases, Circulatory Diseases	...	'13	'45	'16	...	2'25	...	4	15	5	...	75	'24	...	'30	...	'40	'46	...	10	...	21	...	32	32	...
Pneumonia	...	'13	1'02	1'87	3'54	2'25	...	1	12	21	40	25	'48	...	'41	'29	'34	1'76	1'81	9	...	8	6	7	35	36
Other Respiratory Diseases	...	'43	'64	'93	'59	...	...	17	25	36	23	...	'05	'43	'51	'39	'23	'83	'36	26	12	14	11	6	22	10
Abscess of the liver	...	...	'19	'31	...	...	...	38	62	...	...	...	...	...	'10	'23	'21	...	...	...	...	19	43	39	...	...
Urinary Diseases	...	'74	1'88	1'25	2'30	6'76	...	6	14	10	18	52	1'43	'22	1'22	'08	'80	1'96	2'00	15	2	13	10	8	21	30
All Diseases	1'90	8'34	9'33	9'81	11'22	29'28	3	12	13	14	16	42	12'85	4'57	10'35	7'80	6'00	10'44	9'43	21	7	17	13	10	17	15
Heat-stroke	...	'52	'68	'93	...	...	...	24	32	44	...	...	1'19	'65	'61	'49	'46	'62	'36	27	15	14	11	11	14	8
Suicide	...	...	'45	'31	...	...	...	...	59	40	...	...	'24	...	'30	...	'34	'31	'36	15	...	19	...	22	20	23
Other injuries	'63	1'00	1'09	1'25	1'77	2'25	8	13	14	16	22	28	1'43	'43	1'12	1'17	'80	1'10	1'45	19	6	15	15	11	16	10
All Causes	3'17	10'86	12'90	14'17	14'17	40'54	3	11	13	15	15	42	17'61	6'52	13'40	10'73	9'30	13'69	14'15	21	8	16	13	11	16	17
	(c) NUMBER OF DEATHS.					(d) COMPOSITION OF 100 DEATHS AT EACH AGE.					(i) NUMBER OF DEATHS.					(j) COMPOSITION OF 100 DEATHS IN EACH PERIOD OF RESIDENCE.										
Enteric Fever	1	115	76	14	1	1	20	46	20	15	4	6	29	16	53	35	24	43	2	39	53	40	32	30	16	5
Cholera	1	4	4	2	...	1	20	2	1	2	...	6	4	...	...	2	2	2	1	5	...	...	3	2	1	3
Dysentery	1	18	29	8	1	2	20	7	8	9	4	11	5	2	10	15	4	21	2	7	7	8	14	5	8	5
Intermittent and Remittent Fevers	...	9	15	3	...	1	...	4	4	3	...	6	1	...	8	5	1	12	1	1	...	6	5	1	5	3
Alcoholism	...	2	2	2	2	1	...	1	1	2	8	6	1	...	1	...	...	4	3	1	...	1	...	...	2	2
Tubercle of the lungs	...	10	11	4	1	1	...	4	3	8	4	6	1	...	5	3	3	14	1	1	...	4	3	4	5	2
Nervous Diseases, Circulatory Diseases	...	3	12	1	...	1	...	1	3	1	...	6	1	...	3	...	4	9	...	1	...	2	...	5	3	...
Pneumonia	...	3	29	12	6	1	...	1	8	13	25	6	2	...	4	3	3	34	5	3	...	3	3	4	13	12
Other Respiratory Diseases	...	10	17	6	1	...	...	4	5	6	4	...	4	2	5	4	2	10	1	5	7	4	4	2	6	13
Abscess of the liver	...	...	5	2	...	...	...	...	1	2	...	...	...	...	...	1	2	4	...	...	...	...	...	1	2	...
Urinary Diseases	...	17	50	8	4	3	...	7	15	9	17	17	6	1	12	10	7	38	8	8	3	9	9	9	14	21
All Diseases	3	102	248	63	19	13	60	77	72	69	70	72	54	21	102	80	53	202	26	73	70	77	73	65	76	67
Heat-stroke	...	12	18	6	...	...	...	5	5	6	...	...	5	3	6	5	4	12	1	7	10	5	5	5	5	...
Suicide	...	...	12	2	...	...	...	...	3	2	...	...	1	...	3	...	3	6	1	1	...	2	...	4	2	...
Other injuries	1	23	29	8	3	1	20	9	8	9	13	6	6	2	11	12	7	23	4	8	7	8	11	9	9	16
All Causes	5	250	343	91	24	18	100	100	100	100	100	100	74	30	132	110	81	265	39	100	100	100	100	100	100	100
	(e) NUMBER OF DEATHS.					(f) PERCENTAGE AT EACH AGE TO TOTAL NUMBER.					(k) NUMBER OF DEATHS.					(l) PERCENTAGE IN EACH PERIOD OF RESIDENCE TO TOTAL NUMBER.										
Enteric Fever	1	115	76	14	1	1	...	57	35	7	...	...	29	16	53	35	24	43	2	14	8	26	17	12	21	...
Cholera	1	4	4	2	...	1	...	33	33	17	...	...	4	...	...	3	2	2	1	33	...	...	25	17	17	...
Abscess of the liver	...	17	50	8	4	3	...	21	61	10	5	...	6	1	12	10	7	38	8	7	1	15	12	9	40	...
Suicide	...	...	12	2	...	...	...	...	86	14	...	...	1	...	3	...	3	6	1	7	...	21	...	21	43	...
All Causes	5	250	343	91	24	18	1	34	47	12	3	2	74	30	132	110	81	265	39	10	4	18	15	11	36	...

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.

CAUSES OF INVALIDING.	A.—AGE.										B.—LENGTH OF RESIDENCE IN INDIA.															
	(a) INVALIDED PER 1,000.					(b) LIABILITY IN PERCENTAGES.					(g) INVALIDED PER 1,000.					(h) LIABILITY IN PERCENTAGES.										
	Under 20.	20 and less than 25.	25 and less than 30.	30 and less than 35.	35 and less than 40.	40 and upwards.	Under 20.	20 and less than 25.	25 and less than 30.	30 and less than 35.	35 and less than 40.	40 and upwards.	Under 1	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 and upwards.	Under 1	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 and upwards.
Dysentery . . . . .	...	1'09	'98	'62	1'18	...	28	25	16	30	...	'95	'87	1'22	'88	1'84	'57	'36	14	13	18	13	28	9	5
Intermittent and Remittent Fevers	5'07	7'43	6'58	4'67	4'13	13'51	12	18	11	10	33	1'67	10'44	9'03	5'66	6'09	6'25	7'62	4	22	19	12	13	13	16	
Veneral Diseases	'63	5'13	8'73	3'74	1'18	2'25	3	24	40	17	5	10	1'43	5'22	6'39	5'56	7'12	8'32	1'51	4	15	18	16	20	23	
Debility	5'07	4'69	4'59	3'74	12'99	36'04	8	7	7	6	19	54	3'81	6'52	4'16	3'41	4'94	4'70	15'97	9	15	10	8	11	11	
Rheumatism	1'27	'65	'94	'93	'59	2'25	19	10	14	14	9	34	'71	'87	'71	1'07	'57	'77	1'81	11	13	11	16	9	12	
Tubercle of the lungs	'63	1'39	1'62	1'25	'59	...	11	25	30	23	11	...	'95	'87	1'62	1'27	1'95	1'45	1'09	10	9	18	14	21	16	
Mental Diseases . . . . .	...	1'91	1'88	'78	...	...	...	43	41	17	...	...	1'90	2'17	1'42	1'37	1'72	1'86	'73	17	19	13	12	15	17
Epilepsy	'78	'56	'78	37	26	37	1'67	'71	'87	'41	'29	'57	'93	'36	38	5	9	5	13	21
Other Nervous Diseases . . . . .	...	'65	'79	1'56	2'36	2'25	...	9	10	20	31	30	1'19	'65	'51	'49	'23	1'24	2'54	17	9	7	7	3	18
Eye, ear, and nose Diseases	1'90	3'26	1'43	'62	'59	2'25	19	32	14	6	6	22	3'09	4'57	2'74	1'37	2'07	1'45	'36	20	29	18	9	13	9	
Palpitation	'63	2'74	1'32	'31	...	...	13	55	26	6	...	...	3'09	3'04	1'93	1'85	2'07	'93	...	24	24	15	14	10	7
Valvular disease of the heart	'63	1'96	1'24	1'56	'59	2'25	8	24	15	19	7	27	2'38	2'39	1'83	1'17	'92	1'39	1'81	20	20	15	10	8	12	
Other Circulatory Diseases . . . . .	...	'96	'56	'62	1'18	...	...	29	17	19	36	...	'48	'22	'51	'68	'69	'98	1'09	10	5	11	15	15	21
Respiratory Diseases . . . . .	...	'35	'64	'78	'59	6'76	...	4	7	9	6	74	'24	'65	'30	...	1'03	'72	1'45	5	15	7	...	23	16
Hepatitis and Abscess of the liver . . . . .	...	1'13	1'77	2'34	2'36	...	...	15	23	31	31	...	24	1'52	1'62	1'07	1'84	1'86	1'81	2	15	16	11	18	19
Locomotive Diseases . . . . .	...	1'26	'98	'62	'59	2'25	...	22	17	11	10	39	'95	1'30	1'42	1'07	'57	'88	1'45	12	17	19	14	7	12
Injuries . . . . .	...	1'52	1'20	1'25	1'18	4'50	...	16	12	13	12	47	1'19	2'17	1'12	'78	1'72	1'39	1'09	13	23	12	8	18	15
All Causes	17'74	42'11	40'40	28'96	34'83	76'58	7	18	17	12	14	32	29'52	47'84	41'61	32'76	39'50	40'71	46'44	11	17	15	12	14	15	
	(c) NUMBER INVALIDED.					(d) COMPOSITION OF 100 INVALIDINGS AT EACH AGE.					(i) NUMBER INVALIDED.					(f) COMPOSITION OF 100 INVALIDINGS IN EACH PERIOD OF RESIDENCE.										
Dysentery . . . . .	...	25	26	4	2	...	...	3	2	2	3	...	4	4	12	9	16	11	1	3	2	3	3	5	1
Intermittent and Remittent Fevers	8	171	175	30	7	6	29	18	16	16	12	18	7	48	89	58	53	121	21	6	22	22	17	15	15	
Veneral Diseases	1	118	232	24	2	1	4	12	22	13	3	3	6	24	63	57	62	161	5	5	11	15	17	18	20	
Debility	8	168	122	24	22	16	29	11	11	13	37	47	16	30	41	35	43	91	44	13	14	10	10	13	12	
Rheumatism	2	15	25	6	1	1	7	2	2	3	2	3	3	4	7	11	5	15	5	2	2	2	3	1	2	
Tubercle of the lungs	1	32	43	8	1	...	4	3	4	4	2	...	4	4	16	13	17	28	3	3	2	4	4	5	4	
Mental Diseases . . . . .	...	44	50	5	...	...	...	5	5	3	...	...	8	10	14	14	15	36	2	0	5	3	4	4	5
Epilepsy . . . . .	...	18	15	5	...	...	...	2	1	3	...	...	7	1	4	2	5	18	1	6	...	1	1	1	2
Other Nervous Diseases . . . . .	...	15	21	10	4	1	...	2	2	5	7	3	5	3	5	5	2	24	7	4	1	1	1	1	3
Eye, ear, and nose Diseases	3	75	3	4	1	1	11	8	4	2	2	3	13	21	27	14	18	28	1	10	10	7	4	5	4	
Palpitation	1	63	35	2	...	...	4	6	3	1	...	...	13	14	19	19	18	18	...	10	6	5	6	5	2
Valvular disease of the heart	1	45	33	10	1	1	4	5	3	5	2	3	10	11	18	12	8	27	5	8	5	4	4	2	3	
Other Circulatory Diseases . . . . .	...	22	15	4	2	...	...	2	1	2	3	...	2	1	5	7	6	19	3	2	...	1	2	2	2
Respiratory Diseases . . . . .	...	8	17	5	1	3	...	1	2	3	2	9	1	3	3	...	9	14	4	1	1	1	...	3	2
Hepatitis and Abscess of the liver . . . . .	...	26	47	15	4	...	...	3	4	8	7	...	1	7	16	11	16	36	5	1	3	4	3	5	4
Locomotive Diseases . . . . .	...	29	26	4	1	1	...	3	2	2	2	3	4	6	14	11	5	17	4	3	3	3	3	1	2
Injuries . . . . .	...	35	32	8	2	2	...	4	3	4	3	6	5	10	11	8	15	27	3	4	5	3	2	4	3
All Causes	28	969	1,074	186	59	34	100	100	100	100	100	100	124	220	410	336	344	788	128	100	100	100	100	100	100	
	(e) NUMBER INVALIDED.					(f) PERCENTAGE AT EACH AGE TO TOTAL NUMBER.					(k) NUMBER INVALIDED.					(l) PERCENTAGE IN EACH PERIOD OF RESIDENCE TO TOTAL NUMBER.										
Intermittent and Remittent Fevers	8	171	175	30	7	6	2	43	44	8	2	2	7	48	89	58	53	121	21	2	12	22	15	14	30	
Veneral Diseases	1	118	232	24	2	1	...	31	61	6	1	...	6	24	63	57	62	161	5	2	6	17	15	16	43	
Debility	8	168	122	24	22	16	3	36	41	8	7	5	16	30	41	35	43	91	44	5	10	14	12	14	30	
All Causes	28	969	1,074	186	59	34	1	41	46	8	3	1	124	220	410	336	344	788	128	5	9	17	14	15	34	

NOTE.—Marching returns and returns wherein the classification by age and service was omitted have been excluded.

EUROPEAN TROOPS, 1901.

TABLE XVIII.

STATISTICS OF OFFICERS.

A.—SICKNESS and MORTALITY among OFFICERS of the BRITISH ARMY in 1901. (From the medical returns of the army.)

	RATIOS PER 1,000 OF STRENGTH.						ACTUALS.					
	Bengal.	Punjab.	Madras.	Bombay.	India.	Field.	Bengal.	Punjab.	Madras.	Bombay.	India.	Field.
STRENGTH . . . . .	...	...	...	...	...	...	565	448	312	474	1,799	63
CONSTANTLY SICK	23'0	35'9	37'4	30'2	30'9	12'9	12'98	16'54	11'66	14'32	55'50	'81
INVALIDS	61'9	80'4	67'3	82'3	72'8	...	35	36	21	39	131	...
CASES REMAINING FROM 1900 . . . . .	...	...	...	...	...	...	14	13	14	9	50	6
ADMISSIONS	637'2	841'5	1,032'1	917'7	830'5	365'1	360	377	322	435	1,494	23
Influenza	15'9	6'7	41'7	27'4	21'1	31'7	9	3	13	13	38	2
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	3'5	...	6'4	...	2'2	...	2	...	2	...	4	...
Enteric Fever	15'9	22'3	9'6	21'1	17'8	...	9	10	3	10	32	...
Intermittent Fever	161'1	152'2	195'3	204'6	201'2	...	91	113	61	97	362	...
Remittent Fever	8'8	26'8	38'5	21'1	21'7	15'9	5	12	12	10	39	1
Simple Continued Fever	38'9	33'5	86'5	84'4	57'8	...	22	15	27	40	104	...
Tubercle of the lungs . . . . .	...	...	3'2	2'1	1'1	...	...	...	1	1	2	...
Pneumonia . . . . .	...	2'2	3'2	4'2	2'2	...	...	1	1	2	4	...
Other Respiratory Diseases	14'2	20'1	6'4	23'2	16'7	63'5	8	9	2	11	30	4
Dysentery	17'7	17'9	32'1	19'0	20'6	...	10	8	10	9	37	...
Diarrhoea	30'1	53'6	12'8	63'3	41'7	31'7	17	24	4	30	75	2
Hepatic Abscess	1'8	...	6'4	4'2	2'8	...	1	...	2	2	5	...
.. Congestion and Inflammation	19'5	26'8	57'7	50'6	36'1	15'9	11	12	18	24	65	1
Veneral Diseases	5'3	20'1	41'7	14'8	17'8	...	3	9	13	7	32	...
DEATHS	14'16	4'46	9'62	14'77	11'11	...	8	2	3	7	20	...
Cholera . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	7'08	2'23	...	8'44	5'00	...	4	1	...	4	9	...
Intermittent Fever . . . . .	...	...	3'21	...	'36	...	...	...	1	...	1	...
Remittent Fever . . . . .	...	...	3'21	...	'36	...	...	...	1	...	1	...
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Heat-stroke . . . . .	...	...	...	2'11	'36	...	...	...	...	1	1	...
Circulatory Diseases	1'77	2'23	...	...	1'11	...	1	1	...	...	2	...
Tubercle of the lungs . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Hepatic Abscess	1'77	...	3'21	2'11	1'67	...	1	...	1	1	3	...
DEATHS OUT OF HOSPITAL	1'77	...	...	...	'36	...	1	...	...	...	1	...

B.—CAUSES of DEATH among OFFICERS of the BRITISH and INDIAN ARMIES in 1901. (From non-medical sources.)

ARMIES.	IN INDIA.																	Deaths in England and other countries.	Deaths at sea.	GRAND TOTAL.	Ratio per 1,000.
	Strength in India, whether on leave or not, on the 1st of July 1901.	Strength in Europe or beyond sea on 1st July 1901, whether on furlough or sick leave.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	TOTAL.				
BRITISH	2,670	631	...	...	9	1	1	...	1	2	...	...	...	...	3	20	13	1	34	10'28
INDIAN	2,312	922	1	...	3	...	1	...	1	2	...	...	...	...	1	21	21	...	42	12'99

C.—ENTERIC FEVER by months, stations, groups, and commands.

STATIONS AND GROUPS.	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.						
Fort Dufferin	18	1	...	1	35.6	
GROUP II.—BURMA INLAND	48	1	...	1	20.8	
B																			
Fort Allahabad	8	1	1	125.0	1	125.00	
Lucknow	52	...	...	...	1	...	...	...	...	...	...	...	1	2	38.5	1	19.23
GROUP V.—GANGETIC PLAIN AND CHUTIA NAOPUR	163	...	...	...	1	...	...	...	1	...	...	...	1	3	18.4	2	12.27
A																			
Roorkee	12	1	...	1	83.3	1	83.33	
B																			
Rawalpindi	85	...	...	...	3	1	...	...	...	...	...	...	...	4	47.1	...	...
GROUP VI.—UPPER SUB-HIMALAYA	323	...	...	...	3	1	...	...	...	...	1	...	...	5	15.5	1	3.10
A																			
Peshawar	35	...	...	...	1	1	1	...	...	...	...	...	...	3	85.7	1	28.57
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	114	...	...	...	1	1	1	...	...	...	...	...	...	3	26.3	1	8.77
B																			
Nasirabad	16	...	...	...	...	1	...	...	...	...	...	...	...	1	62.5	1	62.50
Agra	27	...	...	...	...	...	...	...	1	...	...	...	...	1	37.0	...	...
Jhansi	22	1	...	...	...	...	...	...	...	...	...	...	...	1	45.5	...	...
Mhow	46	...	...	...	...	...	...	1	...	...	...	...	...	1	21.7	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT	144	1	...	...	...	1	...	...	1	1	...	...	...	4	27.8	1	6.94

* Stations where Enteric fever did not occur are not shown in this table.

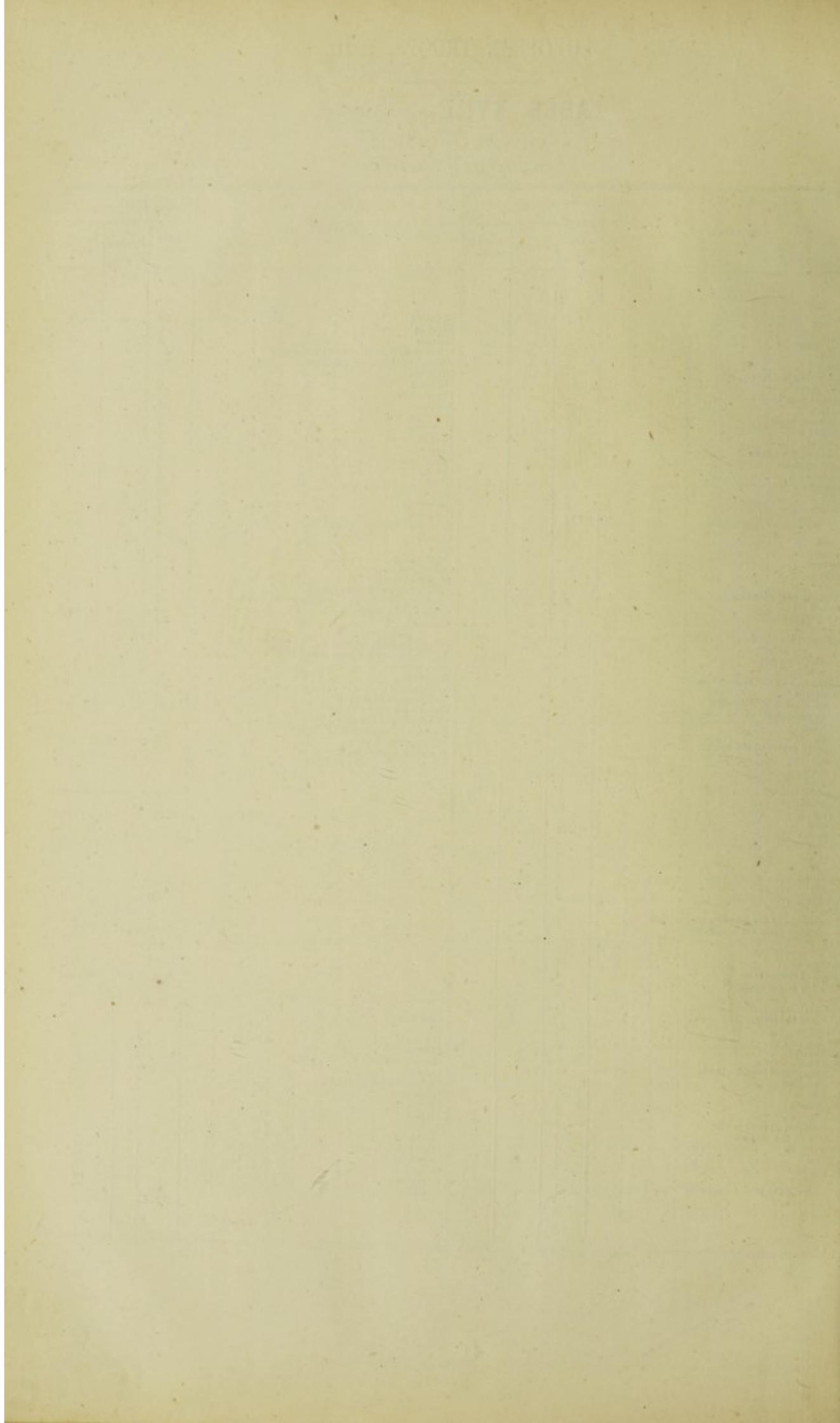
EUROPEAN TROOPS, 1901.

TABLE XVIII—continued.

STATISTICS OF OFFICERS.

C.—ENTERIC FEVER by months, stations, groups, and commands.—concluded.

STATIONS, GROUPS, AND COMMANDS.	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.				
A																	
Jubbulpore	19	...	...	...	...	...	...	1	...	...	...	...	...	1	52.6	...	...
B																	
Poona	70	...	...	...	...	...	...	1	...	...	1	...	...	2	28.6	2	28.57
Ahmednagar	21	...	...	...	1	...	...	...	...	...	1	...	...	2	95.2	...	...
GROUP IX.—DECCAN	267	...	...	...	1	...	...	2	...	...	1	1	...	5	18.7	2	7.49
Colaba	46	1	...	...	...	...	...	...	...	...	...	...	...	1	21.7	1	21.74
GROUP X.— Western Coast	56	1	...	...	...	...	...	...	...	...	...	...	...	1	17.9	1	17.86
A																	
Bangalore	19	...	...	...	...	...	...	2	...	...	...	...	...	2	105.3	...	...
GROUP XI.— Southern India.	62	...	...	...	...	...	...	2	...	...	...	...	...	2	32.3	...	...
Chaubuttia	13	...	...	...	...	...	...	...	1	...	...	...	...	1	76.9	...	...
Chakrata	20	...	...	...	...	...	...	1	...	...	...	...	...	1	50.0	1	50.00
Quetta	74	...	...	...	...	...	...	...	3	...	...	...	...	3	40.5	...	...
GROUP XII a.— Hill Stations	251	...	...	...	...	...	...	1	...	4	...	...	...	5	19.9	1	3.98
Dalhousie	19	...	...	...	...	...	...	2	...	...	...	...	...	2	105.3	...	...
Murree	13	...	...	...	...	...	...	1	...	...	...	...	...	1	76.9	...	...
GROUP XII b.— Hill Convalescent Depôts, and Sanitaria.	122	...	...	...	...	...	...	3	...	...	...	...	...	3	24.6	...	...
INDIA	1,799	2	...	...	6	3	1	8	2	5	2	2	1	32	17.8	9	5.00
BENGAL	565	1	...	...	1	...	...	2	1	2	1	...	1	9	15.9	4	7.08
PUNJAB	448	...	...	...	4	2	1	3	...	...	...	...	...	10	22.3	1	2.23
MADRAS	312	...	...	...	...	...	...	2	...	...	...	1	...	3	9.6	...	...
BOMBAY	474	1	...	...	1	1	...	1	1	3	1	1	...	10	21.1	4	8.44



B. WOMEN.

TABLE XIX.

RATIOS AND ACTUALS OF COMMANDS.

	Bengal Command.		Punjab Command.		Madras Command.		Bombay Command.		India.*		Remaining from 1900.
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	
Strength	827		688		485		729		2,729		
Constantly sick	26'1	21'58	32'9	22'65	43'1	20'92	34'9	25'43	33'2	90'58	
ADMISSIONS—											
Influenza	12'1	10	4'4	3	18'6	9	2'7	2	8'8	24	...
Cholera	1'2	1	...	...	...	...	...	...	4	1	...
Small-pox	1'2	1	2'9	2	...	...	...	...	1'1	3	...
Enteric Fever	8'5	7	10'2	7	4'1	2	4'1	3	7'0	19	2
Intermittent Fever	91'9	76	111'9	77	136'1	66	157'5	115	122'4	334	8
Remittent Fever	2'4	2	5'8	4	8'2	4	13'7	10	7'3	20	...
Simple Continued Fever	4'8	4	4'4	3	10'3	5	12'3	9	7'7	21	...
Tubercle of the lungs	6'0	5	2'9	2	4'1	2	1'4	1	3'7	10	1
Pneumonia . . . . .	...	...	7'3	5	2'1	1	5'5	4	3'7	10	...
Other Respiratory Diseases	15'7	13	17'4	12	43'3	21	17'8	13	21'6	59	2
Dysentery	19'3	10	5'8	4	10'5	8	11'0	8	13'2	36	1
Diarrhoea	19'3	16	11'6	8	...	...	17'8	13	13'6	37	...
Anæmia and Debility	229'7	190	300'9	207	220'6	107	358'0	261	280'3	765	22
Abortion and Puerperal Affections	20'0	24	43'6	30	20'6	10	24'7	18	30'0	82	...
Other diseases peculiar to women	38'7	32	40'7	28	105'2	51	54'9	40	55'3	151	6
ALL CAUSES	575'6	476	687'5	473	787'6	382	849'1	619	714'6	1,950	65
DEATHS—											
Cholera	1'21	1	...	...	...	...	...	...	37	1	...
Small-pox . . . . .	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	3'63	3	4'36	3	4'12	2	1'37	1	3'30	9	...
Intermittent Fever	2'42	2	...	...	2'06	1	...	...	1'10	3	...
Remittent Fever . . . . .	...	...	1'45	1	...	...	...	...	37	1	...
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...
Tubercle of the lungs	1'21	1	1'45	1	...	...	1'37	1	1'10	3	...
Pneumonia . . . . .	...	...	2'91	2	2'06	1	...	...	1'10	3	...
Other Respiratory Diseases	1'21	1	...	...	...	...	...	...	37	1	...
Dysentery . . . . .	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea . . . . .	...	...	...	...	...	...	...	...	...	...	...
Hepatic Abscess . . . . .	...	...	1'45	1	...	...	...	...	37	1	...
Childbirth and Abortion . . . . .	...	...	1'45	1	...	...	...	...	37	1	...
ALL CAUSES	15'72	13	15'99	11	12'37	6	6'86	5	12'83	35	...
PERCENTAGE IN 100 ADMISSIONS—											
Influenza	2'10		63		2'36		32		1'23		
Cholera	2'1		...		...		...		...
Small-pox	2'1		42		...		...		15		
Enteric Fever	1'47		1'48		52		48		97		
Intermittent Fever	15'97		16'28		17'28		18'58		17'13		
Remittent Fever	42		85		1'05		1'62		1'03		
Simple Continued Fever	84		63		1'31		1'45		1'08		
Tubercle of the lungs	1'05		42		53		1'16		51		
Pneumonia . . . . .	...		1'66		1'66		1'65		51		
Other Respiratory Diseases	2'73		2'54		5'50		2'10		3'03		
Dysentery	3'36		85		2'09		1'29		1'05		
Diarrhoea	3'36		1'69		...		2'10		1'90		
Anæmia and Debility	39'92		43'76		28'01		42'16		39'23		
Abortion and Puerperal Affections	5'04		634		2'62		2'91		4'21		
Other diseases peculiar to women	6'72		5'92		13'35		6'46		7'74		
PERCENTAGE IN 100 DEATHS—											
Cholera	77		...		...		...		29		
Small-pox . . . . .	...		...		...		...		...
Enteric Fever	33'1		27'3		33'3		20'0		26'7		
Intermittent Fever	15'4		...		16'7		...		3'6		
Remittent Fever . . . . .	...		9'1		...		...		2'9		
Simple Continued Fever . . . . .	...		...		...		...		...
Tubercle of the lungs	77		...		...		...		8'6		
Pneumonia . . . . .	...		9'1		...		20'0		...		
Other Respiratory Diseases	77		18'2		16'7		...		3'6		
Dysentery . . . . .	...		...		...		...		2'9		
Diarrhoea . . . . .	...		...		...		...		...
Hepatic Abscess . . . . .	...		...		...		...		...
Childbirth and Abortion . . . . .	...		9'1		...		...		2'9		

* For complete detail of diseases, see Table LIII.

WOMEN, 1901.

TABLE XXI.

ENTERIC FEVER by months, stations, groups, and commands.

STATIONS,* GROUPS, AND COMMANDS.	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total ad- missions.	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																	
Allahabad	46	...	...	...	...	1	...	...	...	1	...	...	2	43.5	...	...
Lucknow	73	...	...	...	1	1	...	...	...	...	...	...	2	27.4	2	27.40
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	262	...	...	...	1	1	1	...	...	1	...	...	4	15.3	2	7.63
A																	
Bareilly	32	...	...	...	...	...	...	...	...	...	1	...	1	31.2	...	...
Meerut	73	1	...	...	...	1	...	...	...	...	...	...	2	27.4	1	13.70
B																	
Rawalpindi	114	...	...	...	...	...	3	...	...	...	...	1	4	35.1	2	17.54
GROUP VI.—UPPER SUB-HIMA- LAYA	494	1	...	...	...	1	3	...	...	...	1	1	7	14.2	3	6.07
B																	
Mhow	77	...	...	...	...	...	1	1	...	...	...	...	2	26.0	1	12.99
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	215	...	...	...	...	...	1	1	...	...	...	...	2	9.3	1	4.65
B																	
Secunderabad	106	1	...	...	...	1	...	...	...	...	...	...	2	18.9	2	18.87
GROUP IX.—DECCAN	378	1	...	...	...	1	...	...	...	...	...	...	2	5.3	2	5.29
Subathu	26	...	...	...	...	1	...	...	...	...	...	...	1	38.5	...	...
Jutogh	8	...	...	...	...	...	1	...	...	...	...	...	1	125.0	...	...
Quetta	106	...	...	...	...	...	...	...	...	1	...	...	1	9.4	...	...
GROUP XIIa.—HILL STATIONS	364	...	...	...	...	1	...	1	...	...	1	...	3	8.2	...	...
Kasauli	37	...	...	...	...	1	...	...	...	...	...	...	1	27.0	1	27.03
GROUP XIII.—HILL CON- VALESCENT DEPÔTS, AND SANITARIA	229	...	...	...	...	1	...	...	...	...	...	...	1	4.4	1	4.37
INDIA																	
INDIA	2,729	2	...	...	1	3	3	5	1	...	2	1	19	7.0	9	3.30
BENGAL	827	1	...	...	1	1	2	...	...	1	1	...	7	8.5	3	3.63
PUNJAB	683	...	...	...	...	1	1	4	...	...	...	1	7	10.2	3	4.36
MADRAS	485	1	...	...	...	1	...	...	...	...	...	...	2	4.1	2	4.12
BOMBAY	729	...	...	...	...	...	1	1	...	1	...	...	3	4.1	1	1.37

* 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.*		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1900.
Strength	1,458		1,300		953		1,358		5,069		
Constantly sick	10'5	28'41	10'4	25'20	43'2	41'21	23'5	31'97	25'0	126'79	
ADMISSIONS—											
Influenza	4'8	7	6'9	9	2'1	2	1'5	2	3'9	20	...
Cholera . . . . .	...	...	...	...	1'0	1	...	...	...	2	...
Small-pox . . . . .	...	...	8'5	11	1'0	1	...	...	2'4	12	...
Measles	3'4	5	1'5	2	11'5	11	5'9	8	5'1	26	5
Whooping Cough	0'2	9	7'7	10	53'5	34	14'0	19	17'6	89	...
Enteric Fever	5'5	8	10'0	13	1'0	1	6'6	0	6'1	31	2
Intermittent Fever	54'9	80	99'2	139	166'8	159	175'3	238	119'6	669	23
Remittent Fever	1'4	2	1'5	2	13'6	13	8'1	11	3'5	28	1
Simple Continued Fever	10'3	15	7'8	1	23'1	22	4'4	6	8'7	44	2
Tubercular Diseases	7'7	1	2'3	3	...	...	7'7	1	1'0	5	2
Respiratory Diseases	27'4	40	72'3	94	143'8	137	66'3	90	71'2	361	9
Dysentery	23'3	34	10'8	14	7'3	7	16'9	23	15'4	78	2
Diarrhoea	20'0	30	38'5	59	30'4	29	51'5	70	35'3	179	1
Eye Diseases	22'6	33	20'8	27	35'7	34	11'0	15	21'5	109	3
ALL CAUSES	321'7	469	443'1	576	768'1	732	595'0	808	510'0	2,585	92
DEATHS—											
Cholera . . . . .	...	...	...	...	1'05	1	...	...	2'0	1	...
Small-pox . . . . .	...	...	7'7	1	1'05	1	...	...	3'9	2	...
Diphtheria and Croup . . . . .	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	69	1	77	1	...	...	74	1	59	3	...
Intermittent Fever . . . . .	...	...	...	...	...	...	74	1	20	1	...
Remittent Fever . . . . .	...	...	...	...	1'05	1	1'47	2	59	3	...
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...
Tubercular Diseases	1'37	2	1'54	2	...	...	...	...	79	4	...
Convulsions	4'80	7	3'85	5	5'25	5	5'15	7	4'73	24	1
Respiratory Diseases	4'12	6	4'62	6	1'05	1	2'95	4	3'35	17	...
Teething	4'12	6	2'31	3	3'15	3	3'68	5	3'35	17	2
Dysentery	1'37	2	1'34	2	2'10	2	5'15	7	2'56	13	...
Diarrhoea	6'17	9	10'77	14	2'10	2	9'57	13	7'50	38	1
Anæmia, Debility, and Immaturity	2'74	4	4'62	6	1'05	1	2'21	3	2'76	14	3
ALL CAUSES	20'86	45	34'62	45	28'33	27	36'82	50	32'95	167	10
PERCENTAGE IN 100 ADMISSIONS—											
Influenza	1'49		1'56		2'7		2'5		7'7		
Cholera . . . . .	...		...		1'4		...		1'4		
Small-pox . . . . .	...		1'91		1'4		...		4'6		
Measles	1'07		1'35		1'50		1'09		1'01		
Whooping Cough	1'92		1'74		6'97		2'35		3'44		
Enteric Fever	1'71		2'26		1'4		1'11		1'20		
Intermittent Fever	17'05		22'40		21'72		29'46		23'44		
Remittent Fever	43		35		1'78		1'36		1'08		
Simple Continued Fever	3'20		1'7		3'01		74		1'70		
Tubercular Diseases	21		52		...		12		59		
Respiratory Diseases	8'53		16'32		18'72		11'14		13'07		
Dysentery	7'25		2'43		1'06		2'85		3'02		
Diarrhoea	6'40		8'68		3'96		8'66		6'92		
Eye Diseases	7'04		4'69		4'64		1'86		4'12		
PERCENTAGE IN 100 DEATHS—											
Cholera . . . . .	...		...		3'7		...		6		
Small-pox . . . . .	...		2'2		3'7		...		1'2		
Diphtheria and Croup . . . . .	...		...		...		...		...
Enteric Fever	2'2		2'2		...		2'0		1'8		
Intermittent Fever . . . . .	...		...		...		2'0		1'6		
Remittent Fever . . . . .	...		...		3'7		4'0		1'8		
Simple Continued Fever . . . . .	...		...		...		...		...
Tubercular Diseases	4'4		4'4		...		...		2'4		
Convulsions	15'6		11'1		18'5		14'0		14'4		
Respiratory Diseases	13'3		13'5		3'7		8'0		10'2		
Teething	13'3		6'7		11'1		10'0		10'2		
Dysentery	4'4		4'4		7'4		14'0		7'8		
Diarrhoea	20'0		31'1		7'4		26'0		28'8		
Anæmia, Debility, and Immaturity	8'9		13'5		3'7		6'0		8'4		

* For complete detail of diseases, see Table LIII.

TABLE XXIII.

CHOLERA by months, stations, groups, and commands.

STATION,* GROUP, AND COMMANDS.	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.				
Madras	143	...	...	...	...	...	...	...	1	...	...	...	1	7'0	1	6'99
GROUP XI.—SOUTHERN INDIA	340	...	...	...	...	...	...	...	1	...	...	5	1	2'9	1	2'94
INDIA	5,069	...	...	...	...	...	...	...	1	...	...	...	1	'2	1	'20
BENGAL	1,458	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
PUNJAB	1,300	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	953	...	...	...	...	...	...	...	1	...	...	...	1	1'0	1	1'05
BOMBAY	1,358	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Stations where Cholera did not occur are not shown in this table.

TABLE XXIV.

ENTERIC FEVER by months, stations, groups, and commands.

STATIONS,* GROUPS, AND COMMANDS.	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.						
B																			
Lucknow	126	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	7'9	...	...
Cawnpore	79	...	...	...	...	...	...	...	1	...	1	...	...	2	...	2	28'6	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAAGPUR.	465	...	...	...	...	...	...	...	1	...	1	1	...	3	...	3	6'5	...	...
A																			
Bareilly	66	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	15'2	...	...
Meerut	110	...	...	...	1	...	...	...	...	...	1	...	...	2	...	2	18'2	1	9'09
Umballa	83	...	...	...	...	...	...	...	...	...	2	1	...	3	...	3	36'1	...	...
B																			
Sialkot	86	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	11'6	...	...
Rawalpindi	225	...	...	...	1	...	...	...	1	...	...	...	1	3	...	3	13'3	...	...
GROUP VI.—UPPER SUB-HIMALAYA.	880	...	1	...	2	1	...	...	1	...	1	2	2	10	...	10	11'4	1	1'14
B																			
Nasirabad	36	...	...	...	...	1	1	...	...	...	...	...	...	2	...	2	55'6	1	27'78
Agra	67	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2	29'9	...	...
Mhow	147	...	...	1	...	...	...	1	1	1	...	...	...	4	...	4	27'2	...	...
GROUP VIII.—SOUTH-EAST RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	381	1	...	2	...	1	1	1	1	1	...	...	...	8	...	8	21'0	1	2'62
B																			
Kirkee	114	...	1	...	...	...	1	...	...	...	1	...	...	3	...	3	26'3	...	...
GROUP IX.—DECCAN	728	...	1	...	...	...	1	...	...	...	1	...	...	3	...	3	4'1	...	...
Khyragully	8	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	125'0	...	...
Kalabagh	4	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	250'0	...	...
Khanspur	34	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	29'4	...	...
GROUP XIIa.—HILL STATIONS.	669	...	...	...	...	1	...	...	1	1	...	...	...	3	...	3	4'5	...	...
Kasauli	83	...	...	...	...	...	2	...	...	...	...	...	...	2	...	2	24'1	1	1'05
Dalhousie	29	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	34'5	...	...
Wellington	76	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	13'2	...	...
GROUP XIIb.—HILL CONVALESCENT DEPÔTS, AND SANITARIA.	436	...	...	...	...	2	...	...	1	...	...	1	...	4	...	4	9'2	1	2'29
INDIA																			
INDIA	5,069	1	2	2	2	3	4	1	5	2	3	4	2	31	...	31	6'1	3	'59
BENGAL	1,458	1	...	1	1	1	...	...	1	...	2	1	...	8	...	8	5'5	1	'69
PUNJAB	1,300	...	1	...	1	1	2	...	3	1	...	2	2	13	...	13	10'0	1	'77
MADRAS	953	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	1'0	...	...
BOMBAY	1,358	...	1	1	...	1	2	1	1	1	1	...	...	9	...	9	6'6	1	'74

* Stations where Enteric Fever did not occur are not shown in this table.

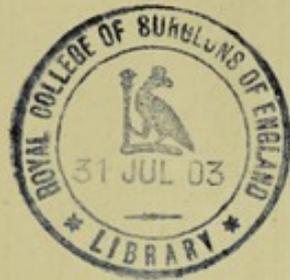
CHILDREN, 1901.

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.	Tubercular Diseases.	Convulsions.	Respiratory Diseases.	Teething.	Dysentery.	Diarrhoea.	Anæmia, Debility, and Immaturity at birth.	ALL CAUSES.	Strength on 1st July 1901.	Deaths per 1,000 of strength (a).	Liability.
Under 6 months . . . . .	...	1	...	...	1	1	...	...	12	4	2*	...	14	10†	59	270	218.52	48.15
Between 6 and 12 months . . . . .	...	...	...	...	...	...	...	...	10	6	11‡	6	13	2	54	395	136.71	30.12
" 12 and 18 " . . . . .	...	1	...	1	...	1	...	...	2	2	4*	3	8	...	25	355	70.22	15.47
" 18 and 24 " . . . . .	...	...	...	...	...	...	...	...	...	1	...	1	1	...	4	451	8.87	1.95
" 2 years and 5 years	1	...	...	...	...	...	...	3	...	4	...	2	2	...	15	1,374	10.92	2.41
" 5 " and 10 " . . . . .	...	...	...	1	...	1	...	1	...	...	...	...	...	...	8	1,514	5.28	1.16
" 10 " and 15 " . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2	599	3.34	.74
" 15 " and upwards . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	100	...	...
TOTAL	1	2	...	3	1	3	...	4	24	17	17	13	38	14	167	5,059	33.01	100

* One with diarrhoea.
 † Ten immaturity at birth.
 ‡ One with diarrhoea, four with convulsions, and one with bronchitis.
 (a) On the supposition that the strength on 1st July 1901 represents the average annual strength.



II.—NATIVE TROOPS, 1901.

TABLE H.

STATIONS by COMMANDS.

STATIONS.	Height above the sea-level in feet.*	Authority for height.†	STATIONS.	Height above the sea-level in feet.*	Authority for height.†	STATIONS.	Height above the sea-level in feet.*	Authority for height.†
BENGAL COMMAND:—			PUNJAB COMMAND—contd.			BOMBAY COMMAND—contd.		
Manipur	2,619	S. G.	Drazand	1,600	I. B.	Sadra	216	S. G.
Sadiya . . . . .	...	...	Nili Kach	1,500	"	Ahmedabad	170	"
Dibrugarh	347	S. G.	Martaza	1,200	"	Baroda . . . . .	...	"
Silchar	104	M. D.	Manjhi	1,100	"	Barwani	609	S. G.
Fort William	17	S. G.	Fort Zam	1,350	"	Alirajpore	977	"
Alipore . . . . .	...	...	Mangrota	500	S. G.	Sirdarpore	1,059	"
Ballygunge . . . . .	...	...	Dera Ghazi Khan	395	"	Jhabwa	1,171	"
Dum-Dum . . . . .	...	...	Mooltan	402	"	Dungarpur	2,850	I. B.
Barrackpore	24	S. G.	Idak	2,140	I. B.	Kherwara	1,050	S. G.
Buxa	2,457	"	Kajuri	2,080	"	Kotra	1,033	"
Cuttack	74	"	Saidgi	1,775	"	Udaipur	1,950	"
Doranda	2,166	"	Jandola	2,400	"	Todgarh	2,300	I. B.
Dinapore . . . . .	...	...	Kajuri Kach	2,500	"	Erinpura	869	S. G.
Benares	256	S. G.	Simla	7,230	S. G.	Neemuch	1,613	"
Allahabad	298	"	Jutogh	6,371	"	Deoli	1,122	"
Fyzabad	336	"	Dharmasala	6,111	"	Beawar	1,465	"
Lucknow	400	"	Bakloh	4,585	"	Nasirabad	1,461	"
Cawnpore	417	"	Murree	7,095	"	Ajmer	1,627	"
Bareilly	560	"	Khyragully	8,746	"	Sambhar	1,254	M. D.
Roorkee	884	"	Baragully . . . . .	...	"	Jaipur	1,552	S. G.
Dehra Dun	2,229	"	Kalabagh	7,936	"	Indore	1,806	"
Meerut	739	"	Gulgit	4,890	S. G.	Mhow	1,903	"
Delhi	715	"	Chitral	4,680	"	Asirgarh	2,283	"
Agra	554	"	Kila Drosh	4,250	I. B.	Sambalpur	490	"
Gwalior . . . . .	...	...	Abbottabad	4,152	S. G.	Raipur	975	"
Jhansi	860	S. G.	Cberat	4,520	"	Kamptee	941	"
Nowgong	770	I. B.	Hangs	3,650	I. B.	Shabaldi	1,236	"
Goona	1,617	S. G.	Miran Shah	3,050	"	Ahmednagar	2,125	"
Agar	1,671	"	Boya	3,600	"	Satara	2,183	"
Schore	1,617	"	Datta Khel	4,500	"	Poona	1,909	"
Saugor	1,753	"	Haidari Kach	3,880	"	Kirkee	1,837	"
Sutna	1,040	M. D.	Sarwekai	4,076	"	Sirur . . . . .	...	"
Jubbulpore	1,306	S. G.	Nagandioba	3,650	I. B.	Bombay	20	S. G.
Kalanaga	3,400	I. B.	Spin	3,000	"	Waziribagh	5,000	I. B.
Kohima	4,500	I. B.	Wana	4,500	"	Mir Ali Khel	3,650	"
Shillong	4,957	S. G.	MADRAS COMMAND:—			Fort Sandeman	4,700	"
Gantak	5,000	I. B.	Port Blair	85	S. G.	Musa Khel	4,450	"
Darjeeling	7,168	S. G.	Rangoon	14	"	Khan Mohamed Kot	3,431	S. G.
Almora	5,494	"	Thayetmyo	145	"	Murgha	5,100	I. B.
Ranikhet	5,983	"	Keog Tung	2,773	"	Loralai	4,450	S. G.
Naini Tal	6,400	"	Fort Stedman	2,900	"	Gumbaz	3,000	I. B.
Lansdowne . . . . .	...	...	Meiktila	298	"	Sharigh	6,335	"
PUNJAB COMMAND:—			Fort Dufferin	249	"	Quetta	5,311	S. G.
Umballa	902	S. G.	Bhamo	351	"	Peshin	5,157	"
Ludhiana	806	"	Myitkyina	500	I. B.	Shelabagh	7,700	I. B.
Jullundur	900	"	Secunderabad	1,732	S. G.	Spinwana	7,800	"
Ferozepore	645	"	Belgam	2,473	"	Chaman	5,488	S. G.
Meeran Meer	706	"	Cannanore	47	"	Meant Abu	3,960	"
Amritsar	256	"	Trichoor	29	"	Chabbar . . . . .	...	"
Sialkot	829	"	Quilon . . . . .	...	"	Jask . . . . .	...	"
Jhelum	827	"	Trivandrum . . . . .	...	M. D.	Muscat . . . . .	...	"
Rawalpindi	1,707	"	Bellary	1,483	S. G.	Bushire	40	I. B.
Attock	891	"	Bangalore	3,021	"	Bagdad	300	"
Mardan . . . . .	...	...	Trichinopoly	274	"	Aden	26	S. G.
Nowshera	1,100	M. O.	Pallavaram	74	"	Khormakcar	50	I. B.
Peshawar	1,165	S. G.	St. Thomas' Mount	259	"	Sheikh Othman	50	"
Fort Jamrud	1,610	"	Madras	15	"	Perim	249	"
Kohat	1,758	"	Vizianagram	191	"	Berbera . . . . .	...	"
Bahadur Khel	1,873	I. B.	Maymyo	3,600	"	HYDERABAD CONTINGENT:—		
Thal	2,820	"	Ootacamund	7,216	"	Ellichpur	1,218	S. G.
Latammar	1,298	"	BOMBAY COMMAND:—			Hingoli . . . . .	...	"
Edwardesabad	1,279	"	Bikaner	828	S. G.	Jalna . . . . .	...	"
Jani Khel	1,300	"	Sibi	495	"	Aurangabad	1,865	M. D.
Khirgi	1,600	"	Jacobabad	181	"	Mominabad . . . . .	...	"
Dera Ismail Khan	371	S. G.	Hyderabad	134	I. B.	Bolarum . . . . .	...	"
Khairu Khel	1,800	I. B.	Kurrachee	28	S. G.	Raichur	1,310	S. G.
Mullazai	1,200	"	Bhuj . . . . .	...	"		
Girni	1,950	"	Rajkot	417	S. G.			
Tank	1,000	"	Deesa	468	"			
Jatta	1,000	"						
Draband	5-0	"						

* 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.

NATIVE TROOPS, 1901.

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.* †
I.—AVERAGE ANNUAL STRENGTH	26,200	46,050	18,622	22,428	5,826	122,006
II.—CONSTANTLY-SICK-RATE OF EACH MONTH—						
January	26'7	28'7	33'3	38'4	18'6	30'2
February	24'0	26'5	30'6	32'6	22'0	27'6
March	24'0	24'6	29'6	31'8	17'9	26'8
April	27'8	23'8	26'3	31'3	18'1	27'5
May	29'1	25'0	25'4	30'7	15'6	27'9
June	26'1	27'3	24'2	31'6	17'1	27'7
July	25'3	28'0	27'3	32'8	15'6	28'5
August	30'2	32'3	32'3	34'9	19'8	32'9
September	29'9	36'4	29'2	40'6	21'3	34'3
October	30'4	39'2	26'8	38'7	28'0	34'5
November	29'5	37'1	28'5	39'8	26'1	33'8
December	26'1	35'5	26'4	35'2	23'9	31'0
OF THE YEAR	27'4	30'5	28'4	35'0	20'6	30'3
III.—ADMISSION-RATE OF THE YEAR—						
Influenza	7'5	14'7	12	3'2	11'7	9'7
Cholera	9	1	4	...	...	3
Small-pox	3	4	7	6	...	4
Enteric Fever	14	3	...	1	...	2
Intermittent Fever	261'8	424'9	262'2	431'6	237'4	258'4
Remittent Fever	9'7	21'7	6'3	14'6	8'7	14'3
Simple Continued Fever	2'5	3'1	14'1	4'5	3	4'9
Tubercle of the lungs	5'8	5'3	1'7	3'5	1'0	4'2
Pneumonia	9'2	17'4	5'0	15'3	5'0	12'7
Other Respiratory Diseases	20'0	46'2	22'6	31'7	14'1	32'6
Dysentery	31'0	54'2	27'1	40'8	21'1	43'2
Diarrhoea	5'8	11'6	2'0	13'3	2'7	8'9
Hepatic { Abscess	2	...	1	1	...	1
{ Congestion and Inflammation	9	5	15	21	3	10
Scurvy	1'0	3'1	2	8'2	1'7	3'2
Veneral Diseases	30'2	20'6	46'8	53'5	37'8	34'3
ALL CAUSES	666'8	944'1	698'6	933'3	543'4	828'8
IV.—DEATH-RATE OF THE YEAR—						
Cholera	'46	'07	'21	...	...	'15
Small-pox	...	'02	'11	'04	...	'03
Enteric Fever	'15	'22	...	'04	...	'12
Intermittent Fever	1'18	'63	'81	1'52	'34	'98
Remittent Fever	'80	1'72	'86	1'38	'51	1'25
Simple Continued Fever	...	'02	'05	'02	...	'03
Circulatory Diseases	'23	'11	'32	'13	'17	'20
Tubercle of the lungs	1'11	1'06	'48	'71	...	'84
Pneumonia	1'30	3'87	'81	4'01	1'03	2'72
Other Respiratory Diseases	'31	'63	'16	'45	'51	'48
Dysentery	'31	'17	'38	'80	'51	'38
Diarrhoea	...	'11	'08	'22	...	'09
Hepatic Abscess	'08	'02	'05	'13	...	'06
Anæmia and Debility	'08	'09	'05	'31	'17	'14
ALL CAUSES	8'44	12'03	8'80	12'93	4'81	10'68
V.—PERCENTAGE IN 100 ADMISSIONS—						
Influenza	1'13	1'56	'03	'34	2'15	1'17
Cholera	'13	'01	'05	...	...	'03
Small-pox	'05	'04	'10	'07	...	'05
Enteric Fever	'06	'03	...	'01	...	'03
Intermittent Fever	39'26	45'01	37'53	46'24	43'68	43'25
Remittent Fever	1'45	2'30	'91	1'57	1'04	1'72
Simple Continued Fever	'37	'33	2'01	'48	'02	'58
Tubercle of the lungs	'87	'56	'24	'37	'19	'51
Pneumonia	1'37	1'84	'72	1'64	'62	1'53
Other Respiratory Diseases	3'00	4'90	3'23	3'39	2'59	3'93
Dysentery	4'65	5'74	3'87	4'38	3'99	5'22
Diarrhoea	'87	1'23	'42	1'43	'51	1'08
Hepatic { Abscess	'02	...	'02	'01	...	'01
{ Congestion and Inflammation	'13	'05	'22	'22	'05	'11
Scurvy	'28	'33	'02	'88	'32	'37
Veneral Diseases	4'53	2'18	6'69	5'73	6'95	4'14
VI.—PERCENTAGE IN 100 DEATHS—						
Cholera	5'4	'5	2'4	...	...	1'4
Small-pox	...	'2	1'2	'3	...	'3
Enteric Fever	1'8	1'8	...	'3	...	1'1
Intermittent Fever	14'0	5'2	9'1	11'7	7'1	9'2
Remittent Fever	9'5	14'3	9'8	10'7	10'7	11'7
Simple Continued Fever	...	'2	'6	'7	...	'3
Circulatory Diseases	2'7	'9	3'7	1'0	3'6	1'8
Tubercle of the lungs	13'1	8'8	5'5	5'5	...	7'9
Pneumonia	15'4	22'1	9'1	31'0	21'4	25'5
Other Respiratory Diseases	3'6	5'2	1'8	3'4	10'7	4'5
Dysentery	3'6	1'4	4'3	6'2	10'7	3'6
Diarrhoea	...	'9	'6	1'7	...	'8
Hepatic Abscess	'9	'2	'6	1'0	...	'5
Anæmia and Debility	'9	'7	'6	2'4	3'6	1'3

* For complete detail of diseases see Table LIII.

† Excluding troops in China and in British East Africa, and including troops in Extra India not in the Indian Command.

NATIVE TROOPS, 1901.

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	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-Himalaya.	N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	S.-E. Rajputana, Central India, and Gujarat.	Decan.	Western Coast.	Southern India.	Hill Stations.	Army of India.*†
I.—AVERAGE ANNUAL STRENGTH		1,452	4,084	1,472	2,287	5,564	15,263	16,951	10,994	14,468	2,021	6,436	20,936	122,806
II.—CONSTANTLY-SICK-RATE OF EACH MONTH—														
January	36.6	42.9	38.3	50.5	31.3	26.5	31.5	42.2	27.7	27.6	35.7	34.5	30.2	30.2
February	26.9	33.5	34.5	45.0	25.5	21.7	25.8	34.7	27.8	30.3	35.4	31.0	27.6	27.6
March	22.6	28.6	30.6	42.7	23.8	18.9	25.8	32.3	20.0	31.8	35.5	30.8	26.8	26.8
April	19.6	28.5	29.2	50.5	28.7	21.3	25.4	34.1	27.1	30.7	31.1	27.9	27.5	27.5
May	21.8	26.4	23.6	40.1	28.0	26.4	27.2	33.9	25.1	32.5	27.9	28.3	27.9	27.9
June	22.7	28.7	33.4	37.5	22.8	23.5	28.7	33.3	23.5	30.6	27.6	32.2	27.7	27.7
July	26.9	37.8	41.0	39.7	23.1	21.3	25.9	30.1	22.7	37.1	29.1	34.3	28.5	28.5
August	32.1	47.3	52.3	42.7	25.4	23.0	31.2	34.7	24.7	31.6	33.2	36.6	32.9	32.9
September	32.0	39.5	51.9	32.8	25.0	20.5	30.8	39.7	25.1	37.8	30.1	40.9	34.3	34.3
October	18.4	37.9	62.7	38.2	24.4	28.6	43.6	39.6	28.9	38.3	27.7	33.5	34.5	34.5
November	19.2	31.8	56.9	43.6	29.1	28.9	43.8	41.0	29.8	35.5	32.6	37.9	33.8	33.8
December	27.6	33.2	45.1	43.5	23.7	28.0	30.4	40.1	27.3	32.1	28.6	43.0	31.0	31.0
OF THE YEAR	25.5	34.8	46.4	42.1	25.8	24.6	31.9	36.5	26.4	32.9	31.6	34.6	30.3	30.3
II.—ADMISSION-RATE OF THE YEAR—														
Influenza	2.1	...	.7	...	11.9	1.5	1.7	8.1	4.7	...	.2	15.0	9.7	9.7
Cholera	...	...	...	.9	2.9	.3	.1	...	...	...	1.1	.1	.3	.3
Small-pox	...	...	...	.9	.5	.3	.9	.4	.3	.5	1.7	.4	.4	.4
Enteric Fever	...	...	4.8	...	.4	.3	.1	...	.1	...	.4	.4	.2	.2
Intermittent Fever	97.1	714.0	578.1	411.0	191.2	243.1	430.6	520.8	224.1	281.5	180.4	391.3	358.4	358.4
Remittent Fever	9.0	6.6	13.5	24.0	5.0	12.8	16.9	13.2	6.7	20.3	3.7	3.1	14.3	14.3
Simple Continued Fever	2.1	32.1	...	...	.2	.3	1.0	10.7	6.8	10.9	3.7	1.4	4.9	4.9
Tubercle of the lungs	2.8	1.0	3.4	2.2	8.4	5.6	4.8	4.1	1.7	1.5	3.0	7.4	4.2	4.2
Pneumonia	1.4	2.0	3.4	4.4	8.6	18.0	14.6	15.3	6.4	12.4	8.9	18.0	12.7	12.7
Other Respiratory Diseases	10.3	48.5	24.5	30.6	20.2	28.7	39.9	23.6	19.3	24.7	10.2	42.8	32.6	32.6
Dysentery	63.4	34.8	46.2	41.1	42.2	31.4	55.7	26.2	18.5	52.9	24.9	48.9	43.2	43.2
Diarrhoea	.7	5.1	19.0	9.6	5.6	4.3	12.1	9.8	2.9	23.3	3.4	10.7	8.9	8.9
Hepatic { Abscess	...	.2	.7	.4	.2	.1	...	...	.2	...	...	...	.1	.1
{ Congestion and Inflammation	2.8	.7	1.4	1.3	.9	.2	.4	2.5	.9	2.0	1.9	1.1	1.0	1.0
Scurvy	...	.2	.7	.9	1.1	2.2	4.6	2.9	1.9	2.5	.3	6.5	3.2	3.2
Veneral Diseases	63.9	27.4	17.0	31.9	22.1	24.3	18.8	59.9	58.4	69.3	47.7	33.5	34.3	34.3
ALL CAUSES	544.8	1,213.5	1,081.5	851.8	624.7	656.9	956.9	1,023.8	602.4	842.2	655.1	945.1	828.8	828.8
IV.—DEATH-RATE OF THE YEAR—														
Cholera	...	...	...	.87	1.80	.13	.06	...	...	...	.62	...	.15	.15
Small-pox	...	...	...	...	...	...	.06	...	...	...	.31	.05	.03	.03
Enteric Fever	...	...	1.36	...	.36	.20	.12	...	...	...	...	.29	.12	.12
Intermittent Fever	.69	1.96	2.04	1.75	1.98	.72	.94	1.91	.28	1.48	.47	.67	.65	.65
Remittent Fever	1.38	1.47	...	1.75	.90	1.24	1.30	1.46	.48	.49	.62	2.91	1.25	1.25
Simple Continued Fever	...	...	...	...	...	...	.06	...	.07	...	.16	.05	.03	.03
Circulatory Diseases	...	.49	.68	...	.18	.13	.18	.09	.07	...	.47	.24	.20	.20
Tubercle of the lungs	.69	.24	.68	.44	.90	.92	.53	.82	.21	1.49	.47	2.20	.84	.84
Pneumonia	.69	.24	...	1.31	1.98	2.56	3.13	3.73	.97	2.97	1.40	4.82	2.73	2.73
Other Respiratory Diseases	...	.24	...	.87	.36	.39	.71	.45	.21	.93	.31	.53	.48	.48
Dysentery	.69	.73	...	2.19	.36	.20	.12	.36	.35	1.48	.47	.33	.38	.38
Diarrhoea	...	.24	...	...	...	...	.18	.27	...	...	...	.14	.09	.09
Hepatic Abscess	...	...	.68	...	...	...	...	.21	...	...	...	.10	.06	.06
Anæmia and Debility	...	...	...	...	.18	...	.13	.06	.09	.14	.49	...	.33	.14
ALL CAUSES	13.09	9.06	5.43	11.81	12.38	9.37	10.09	11.46	6.22	14.84	10.25	15.19	10.68	10.68
V.—PERCENTAGE IN 100 ADMISSIONS—														
Influenza	.38	...	.06	...	1.90	.23	.18	.79	.78	...	.02	1.39	1.17	1.17
Cholera	...	...	...	.10	.46	.04	.01	...	...	...	.17	.01	.03	.03
Small-pox	...	...	...	.10	.09	.04	.09	.04	.06	.06	.26	.05	.05	.05
Enteric Fever	...	...	.44	...	.06	.04	.01	...	.01	...	...	.05	.03	.03
Intermittent Fever	17.83	58.84	53.45	48.25	30.61	37.00	45.00	50.87	37.21	33.43	27.54	41.49	43.25	43.25
Remittent Fever	1.64	.54	1.26	2.02	.81	1.95	1.76	1.29	1.11	2.41	.57	3.51	1.72	1.72
Simple Continued Fever	.38	2.64	...	...	.03	.04	.10	1.05	1.12	1.29	.57	.15	.58	.58
Tubercle of the lungs	.51	.08	.31	.26	1.35	.86	.50	.40	.29	.18	.45	.78	.51	.51
Pneumonia	.25	.16	.31	.51	1.38	2.73	1.52	1.49	1.06	1.47	1.35	1.97	1.53	1.53
Other Respiratory Diseases	1.90	4.00	2.26	3.59	4.20	4.37	4.17	2.30	3.20	2.94	2.47	4.53	3.93	3.93
Dysentery	11.63	2.87	4.27	4.83	6.76	4.78	5.82	2.56	3.06	6.29	3.80	5.17	5.22	5.22
Diarrhoea	.13	.42	1.73	1.13	.89	.66	1.26	.96	.48	2.76	.52	1.14	1.08	1.08
Hepatic { Abscess	...	.02	.06	.05	.03	.01	...	...	.03	...	...	...	.01	.01
{ Congestion and Inflammation	.51	.06	.13	.15	.14	.02	.04	.24	.15	.24	.28	.12	.11	.11
Scurvy	...	.02	.06	.02	.17	.34	.48	.28	.31	.29	.05	.69	.37	.37
Veneral Diseases	12.64	2.26	1.57	3.75	3.54	3.70	1.96	5.85	9.69	8.23	7.28	3.54	4.14	4.14
VI.—PERCENTAGE IN 100 DEATHS—														
Cholera	...	...	...	.74	14.3	1.4	.6	...	...	...	.61	...	1.4	1.4
Small-pox	...	...	...	...	...	...	.6	...	...	...	.30	.3	.3	.3
Enteric Fever	...	...	25.0	...	.29	.21	1.2	...	...	...	...	1.9	1.1	1.1
Intermittent Fever	.53	21.6	37.5	14.8	15.7	.77	.93	16.7	4.4	10.0	4.5	4.4	6.2	6.2
Remittent Fever	10.5	16.2	...	14.8	.71	13.3	12.9	12.7	.78	3.3	6.1	19.2	11.7	11.7
Simple Continued Fever	...	...	...	...	...	...	.6	...	.11	...	1.5	.3	.3	.3
Circulatory Diseases	...	.54	12.5	...	.14	.14	.18	.8	.11	.33	4.5	1.0	1.8	1.8
Tubercle of the lungs	.53	.27	12.5	...	.71	.98	.53	.71	.33	10.0	4.5	14.5	7.9	7.9
Pneumonia	.53	.27	...	11.1	15.7	27.3	31.0	32.5	15.6	20.0	13.0	31.8	25.5	25.5
Other Respiratory Diseases	...	.27	...	.74	.29	.42	.70	4.0	3.3	6.7	3.0	3.5	4.5	4.5
Dysentery	...	8.1	...	18.5	2.9	2.1	1.2	3.2	5.6	10.0	4.5	2.3	3.6	3.6
Diarrhoea	...	.27	...	...	...	...	.18	2.4	...	...	...	.9	.8	.8
Hepatic Abscess	...	...	...	...	...	...	...	...	...	...	...	.6	.5	.5
Anæmia and Debility	...	...	...	...	1.4	...	.6	...	...	...	...	2.2	1.3	1.3

* Including Group Extra India. For complete detail of diseases see Table LIII.

† Excluding troops in China and in British East Africa, and including troops in Extra India not in the Indian Command.

NATIVE TROOPS, 1901.

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.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.	
Fort Blair . . .	298 {	...	...	...	...	104'0 3'36	6'7	6'7	...	...	...	16'8	13'4	...	...	3'4 3'36	...	13'4	23'5	285'2 10'07	10'1	3'4	10'1	10'1	...
Tangoon . . .	1,154 {	2'6	...	...	...	95'3 1'73	9'5	9'9	4'3	3'5 8'7	1'7	8'7	26'3 7'87	9	...	2'6	...	22'5	80'6	611'8 12'86	29'5	10'4	21'7	23'4	25'1
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,452 {	2'1	...	...	...	97'1 1'69	9'0	2'1	3'4	2'8 1'69	1'4	10'3	63'4 1'69	7	...	2'8 1'69	...	20'7	68'9	544'8 13'09	25'5	9'0	10'3	20'7	20'0
Thayetmyo . . .	683 {	...	...	...	...	112'7	4'4	153'7	2'9	2'9	1'5	20'5	15'2	4'4	1'5	1'5	...	2'9	35'1	702'8 4'39	26'4	11'7	...	14'6	8'8
Keng Tung . . .	292 {	...	...	...	...	2,750'0 13'70	13'7	89'0	...	...	...	6'8	27'4	...	...	...	...	3'4	30'8	3,150'7 20'55	61'6	...	...	13'7	17'1
Fort Stedman . . .	331 {	...	...	...	...	519'6 3'02	...	...	3'0	...	...	66'5	24'2	30'2	...	...	...	24'2	31'4	990'9 21'15	36'3	6'0	...	18'1	27'2
Meiktila . . .	196 {	...	...	...	...	86'7	5'1	...	...	...	...	...	10'2	...	...	...	...	35'7	35'7	433'7 5'10	25'5	30'6	...	...	5'1
Fort Dufferin . . .	1,539 {	...	...	...	...	417'2 1'65	6'5	...	6	1'3 1'65	2'6	74'1	30'5	3'2	...	6	6	32'5	27'9	940'2 6'50	33'8	4'5	3'9	10'4	9'1
Bhamo . . .	888 {	1,260'1 2'25	10'1	4'50	2'3	39'4	69'8	1'1	...	20'3	10'1	1,712'8 10'14	36'0	2'3	...	4'5	3'4
Myitkyina . . .	155 {	...	...	...	...	554'8	...	...	...	...	...	6'5	71'0	38'7	19'4	...	...	12'9	19'4	1,129'0 6'45	38'7	...	...	12'9	6'5
GROUP II.—BURMA INLAND	4,084 {	...	...	...	...	714'0 1'96	6'6	32'1	1'0	1'0	2'0	48'5	34'8	5'1	2	7	2	21'5	27'4	1,213'5 9'06	34'8	6'1	1'5	10'3	9'5
Manipur . . .	719 {	8'3 2'78	609'2 2'78	20'9	...	1'4 1'39	1'39	2'8	13'9	20'9	30'6	...	1'4	...	7'0	19'5	1,089'1 8'35	55'6	...	1'4	12'5	5'6
Sadiya . . .	72 {	...	...	...	...	708'3	...	...	...	...	...	...	27'8	180'6	...	...	...	13'9	...	1,263'9	27'8	...	...	...	...
Dibrugarh . . .	285 {	3'5	950'9 3'51	10'5	...	10'5	10'5	10'5	56'1	66'7	7'0	3'5	3'51	...	3'5	126'3	17'5	1,715'8 7'02	66'7	10'5	7'0
Sikhar . . .	303 {	...	...	...	...	2'3	230'4	5'1	...	2'5	5'1	...	20'3	53'2	10'1	...	2'5	...	15'2	579'8	20'3	2'5	...	...	12'7
GROUP III.—ASSAM	1,472 {	7	4'8 1'36	578'1 2'04	13'6	...	3'4 1'68	3'4 1'68	3'4	24'5	46'2	19'0	7	1'4	7	28'5	17'0	1,081'5 5'43	46'4	7	7	8'2	7'5
Fort William . . .	571 {	...	...	3'5	...	695'3	17'5	...	...	7'0	8'8	49'0	71'8	7'0	1'8	...	...	28'0	50'8	1,120'8 8'76	49'0	12'3	7'0	17'5	14'0
Alipore . . .	824 {	...	1'2 1'21	...	...	438'1 1'21	41'3 1'21	...	2'4	...	3'6 1'21	30'3	36'4	7'3	...	2'4	21'8	7'3	15'8	957'5 13'35	41'3	3'6	2'4	...	9'7
Ballygunge . . .	36 {	...	...	...	...	55'6	...	...	...	...	...	83'3	...	...	...	...	...	...	27'8	535'6 27'78	27'8	...	...	27'8	...
Dum-Dum . . .	17 {	...	...	...	...	176'5	...	...	...	...	...	...	58'8	...	...	...	...	...	...	411'8	...	...	...	...	...
Barrackpore . . .	281 {	...	...	...	...	252'7 7'12	...	...	...	...	7'1	17'8	21'4	7'1	...	...	...	14'2	39'1	473'3 3'56	46'3	7'1	10'7	7'1	14'2
Buxa . . .	283 {	...	...	...	...	318'0	24'7	...	3'5	3'5	...	7'1	45'9	28'3	...	3'5	...	7'1	14'1	830'4 7'07	35'3	7'1	...	7'1	...
Cuttack . . .	274 {	...	3'6 3'65	...	...	58'4 3'65	14'6	...	7'3	...	...	25'5	10'9	7'3	...	...	...	69'3	54'7	452'6 10'95	40'1	25'5	7'3	3'6	18'2
GROUP IV.—BENGAL AND ORISSA	2,287 {	...	9	9	...	411'0	24'0	...	2'2	2'2	4'4	30'6	41'1	9'6	4	1'3	7'9	20'6	31'9	851'8 11'81	42'1	9'2	4'8	7'0	10'9	

NATIVE TROOPS, 1901.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anemia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhoea.		
A.																											
Doranda	469	...	...	2'1	...	232'4	23'5	...	...	4'3	10'7	20'9	40'5	12'8	...	...	...	23'5	49'0	884'9 2'13	32'0	21'3	12'8	2'1	12'1
B.																											
Dinapore	332	...	3'0	3'0	3'0	171'7	...	...	...	9'0	21'1	27'1	9'0	...	...	...	15'1	9'0	488'0 24'10	27'1	3'0	...	...	...	6'1
Benares	609	108'4	...	...	...	203'9	1'6	...	3'3	1'6	4'9	27'9	23'0	3'3	...	...	1'6	19'7	11'5	697'9 16'42	29'6	4'9	...	3'3	3'1
Allahabad	1,018	...	...	...	...	266'2	...	...	2'9	2'0	5'9	8'8	97'2	2'9	1'0	...	...	3'9	21'6	689'6 11'79	26'5	2'9	...	9'8	8'1
Fyzabad	800	...	15'0	...	...	167'5	3'8	1'2	1'2	7'5	10'0	42'5	40'0	13'8	...	6'2	2'5	23'8	13'8	638'8 20'00	27'5	6'2	...	3'8	3'1
Lucknow	1,349	...	2'2	...	...	111'2	3'0	...	...	23'0	3'7	37'1	15'6	2'2	...	...	2'2	16'3	32'6	551'5 5'93	25'2	4'4	3'0	8'9	16'1
Cawnpore	989	...	...	1'0	1'0	165'8	9'1	...	1'0	5'1	18'2	15'2	41'5	3'0	...	...	6'1	13'1	522'7 15'17	20'2	6'1	1'0	5'1	1'0	
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	5,564	11'9	2'9	'3	'4	191'2	5'0	'2	1'3	8'4	8'6	26'2	42'2	5'6	'3	'9	1'1	14'2	22'1	624'7 12'58	25'8	6'1	2'0	5'9	8'1		
A.																											
Bareilly	1,068	...	...	...	...	263'1	3'7	...	...	4'7	7'5	12'2	79'6	2'8	...	'6	1'9	18'7	20'6	727'5 5'62	25'3	7'5	1'9	6'6	4'1
Roorkee	442	11'3	2'3	...	...	99'5	...	...	2'3	...	6'8	13'6	27'1	15'8	...	...	...	20'4	22'6	429'9 2'26	20'4	6'8	9'0	6'8	...
Dehra Dun	1,248	2'4	...	'8	...	129'0	13'6	...	'8	20'0	5'6	7'2	6'4	6'4	...	'8	...	7'2	40'9	507'2 10'42	26'4	3'2	15'2	4'0	18'4		
Meerut	1,209	...	...	...	...	159'6	15'7	'8	'8	5'8	9'9	15'7	9'9	'8	'8	'8	...	9'1	10'9	524'4 4'96	21'5	5'8	3'3	3'3	7'4
Delhi	550	...	...	...	...	481'8	3'6	...	...	1'8	41'8	29'1	1'8	...	...	...	5'5	...	21'8	850'9 27'27	30'9	10'9	...	7'3	3'6
Umballa	1,478	...	2'0	...	...	211'8	16'2	...	...	2'7	10'8	20'3	27'7	8'1	...	...	...	16'9	28'4	602'8 11'50	23'7	4'1	6'1	7'4	10'8
B.																											
Ludhiana	31	...	...	...	...	935'5	161'3	...	...	32'5	129'0	161'3	...	...	...	...	32'3	...	32'3	1,774'2	64'5	32'3	...	...	...
Jullundur	1,106	...	...	'9	...	168'2	9'0	...	...	3'6	21'7	19'9	32'5	...	...	...	4'5	15'4	9'9	469'3 4'82	16'3	'9	...	2'7	6'3
Ferozepore	1,829	1'6	1'6	377'8	3'3	...	2'2	1'1	26'8	66'2	30'6	3'8	2'7	25'2	14'2	860'6 11'48	27'3	2'2	1'6	3'8	6'6	
Meean Meer	1,253	525'1	23'9	16'0	59'9	47'9	56'7	8'0	4'8	28'7	28'7	1,130'1 20'75	37'5	4'0	3'2	13'6	8'0	
Amritsar	133	...	...	...	...	383'5	7'5	...	...	30'1	97'7	67'7	7'5	...	...	...	...	...	...	834'6 7'52	22'6	...	...	...	...
Sialkot	1,559	...	...	'6	...	213'0	14'8	...	...	3'8	13'5	19'9	35'9	1'9	...	...	...	15'4	12'8	606'8 5'77	21'2	3'2	4'5	2'6	2'6
Jhelum	1,421	'7	...	170'3	28'1	2'1	2'1	3'5	9'9	32'4	15'5	2'1	3'5	10'0	20'6	607'3 9'85	23'2	7'7	3'5	7'0	11'2	
Rawalpindi	1,870	8'0	...	'5	...	136'4	7'0	5	4'3	20'9	20'9	25'7	5'3	3'7	12'8	39'0	496'3 4'28	22'5	9'1	3'7	10'7	15'5	
Attock	66	...	...	...	...	136'4	30'3	...	...	...	...	30'3	30'3	...	...	...	...	...	15'2	333'3 15'15	15'2	...	...	...	15'2
GROUP VI.—UPPER SUB-HIMALAYA.	15,263	1'5	'3	'3	'3	243'1	12'8	'5	'7	5'6	18'0	28'7	31'4	4'3	'1	'2	2'2	16'2	24'3	656'9 9'37	24'6	5'1	4'2	6'2	8'8		
A.																											
Mardan	983	...	1'0	...	...	70'2	13'2	...	1'0	7'1	12'2	37'6	34'6	4'1	...	...	1'0	15'3	28'5	433'4 10'17	20'3	1'0	1'0	10'2	16'3
Nowshera	1,073	...	...	...	...	245'1	11'2	...	'9	4'7	7'5	26'1	56'8	46'6	...	'9	1'9	14'0	25'2	749'3 6'52	29'8	7'5	7'5	4'7	5'6
Peshawar	2,604	...	...	...	...	382'5	3'1	...	1'2	5'8	15'7	38'0	48'8	7'3	...	'4	1'5	13'4	11'5	842'2 7'30	24'6	2'7	'8	1'9	6'1

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.													2. DEATH-RATE.											
		Influenza.	Cholera.	Small-pox.	Euteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anemia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilia.	Soft Chanere.	Secondary Syphilia.	Gonorrhoea.	
Fort Jamrud	133	...	...	...	...	293'2	...	...	...	...	7'5	22'6	82'7	...	...	...	...	15'0	7'5	580'5	7'5	...	7'3	...	...
Kohat	3,083	1'3	...	...	...	310'4	34'4	2'6	6'5	12'3	46'4	40'5	12'3	...	...	...	7'8	38'3	12'3	858'9	32'4	...	1'3	5'8	4'9
Bahadur Khel	21	...	...	...	...	95'2	47'6	...	...	...	47'6	142'9	47'6	...	...	...	...	...	47'6	666'7	...	...	...	...	47'6
Ihal	79	...	...	...	...	1,177'2	...	...	...	...	25'3	101'3	...	...	...	...	12'7	...	12'7	1,683'5	38'0	...	...	12'7	...
Latammar	38	...	...	...	...	184'2	...	...	...	...	26'3	131'6	...	...	...	...	...	52'6	...	710'5	26'3	...	...	...	...
Edwardesabad	1,888	5'3	3'7	5	271'7	26'0	...	1'1	7'4	28'6	49'8	40'8	7'9	...	5	5'3	21'2	10'6	843'7	14'30	31'8	3'2	5	4'2	2'6	
Jani Khel	200	...	...	...	...	445'0	...	...	...	...	5'0	35'0	45'0	15'0	...	...	5'0	15'0	10'0	930'0	20'0	5'0	...	...	5'0
Khirgi	51	...	...	...	...	1,274'5	19'6	...	...	...	19'6	58'8	39'2	...	...	...	19'6	...	1,764'7	...	39'2	...	...	...	...
Dera Ismail Khan	1,740	8'6	2'9	...	899'4	12'6	6	2'9	4'0	16'7	52'9	76'4	13'8	...	6	6	25'3	24'1	1,646'6	10'09	55'7	6	5'2	5'7	12'6	
Khairu Khel	64	...	...	...	...	93'8	...	...	...	...	15'6	...	46'9	...	...	...	...	...	...	296'9	...	...	...	...	...
Mullazai	63	...	...	...	...	190'5	...	...	...	...	31'7	...	...	...	...	...	15'9	...	381'0	...	15'9	...	...	...	...
Girni	70	...	...	...	...	500'0	...	...	...	...	14'3	57'1	...	...	...	...	...	...	...	842'9	...	14'3	...	...	...
Tank	143	...	...	...	...	251'7	14'0	...	7'0	42'0	35'0	69'9	...	...	...	...	35'0	14'0	755'2	34'97	35'0	7'0	...	...	7'0
Jatta	35	...	...	...	...	600'0	...	...	...	...	85'7	228'6	...	...	...	...	...	...	...	1,314'3	...	28'6	...	...	...
Draband	21	...	...	...	...	476'2	100'5	...	...	47'6	47'6	95'2	...	...	...	...	47'6	47'6	1,351'0	47'62	47'6	...	...	47'6	...
Drazand	44	...	...	...	...	931'8	22'7	48'5	...	...	68'2	181'8	...	...	...	...	68'2	...	1,636'4	...	45'5	...	...	...	...
Nili Kach	86	...	...	...	...	1,744'2	11'6	...	...	11'6	46'5	244'2	127'9	...	...	151'2	11'6	...	2,686'0	23'26	58'1	...	...	...	...
Murtaza	78	...	...	...	...	807'7	...	...	...	...	25'6	12'8	115'4	38'5	...	...	...	12'8	...	1,307'7	...	25'6	...	...	...
Manjhi	52	...	...	...	...	384'6	19'2	...	...	...	76'9	115'4	...	...	...	...	76'9	...	961'5	...	38'5	...	...	...	...
Fort Zam	252	...	...	...	...	357'1	7'9	...	11'9	4'0	79'4	79'4	4'0	...	...	4'0	47'6	7'9	980'2	7'94	35'7	...	...	4'0	4'0
Mangrota	31	...	...	...	...	354'8	32'26	...	...	...	...	...	...	...	...	...	...	32'3	387'1	32'26	...	...	...	...	32'3
Dera Ghazi Khan	291	...	...	...	...	890'0	10'3	...	...	...	17'2	44'7	3'4	...	...	3'4	...	44'7	1,178'7	10'31	30'9	...	3'4	13'7	27'5
Mooltan	1,133	...	...	...	...	332'7	6'2	1'8	...	2'6	4'4	7'9	30'9	3'5	...	...	9	8'8	22'1	672'6	5'30	22'1	3'5	2'6	13'2
Bikaner	4	...	...	...	...	25'0	...	...	...	...	25'0	...	...	...	...	...	...	...	...	50'0	...	...	...	...	...
B.																										
Idak	179	...	...	5'6	...	620'1	22'3	...	...	22'3	27'9	33'5	...	...	...	5'6	11'2	11'2	1,016'8	...	22'3	5'6	...	5'0	...
Kajuri	49	...	...	...	...	979'6	61'2	...	...	20'4	20'4	102'0	20'4	...	...	...	20'4	...	1,731'7	...	40'8	...	...	...	...
Saidgi	192	...	...	...	...	1,119'8	36'5	...	...	5'2	31'2	41'7	52'1	31'2	...	...	5'2	15'6	...	1,744'8	10'42	31'2	...	...	...
Jandola	252	...	...	...	...	532'8	34'7	3'9	7'7	19'3	131'3	235'5	23'2	...	...	3'9	3'9	57'9	3'9	1,698'8	38'61	34'7	...	...	3'9
Kajuri Kach	270	...	...	...	...	1,914'8	3'7	...	...	3'7	18'5	48'1	129'6	37'0	...	...	40'7	11'1	3'7	2,714'8	25'93	70'4	...	...	3'7
Sibi	102	...	...	...	...	617'6	19'6	19'6	...	...	63'6	58'8	78'4	58'8	...	...	...	9'8	9'8	1,294'1	6'1	39'2	...	...	9'8

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	
Gwalior	29	...	...	...	...	310.3	...	...	...	...	...	...	...	...	...	...	...	...	...	448.3	...	...	...	...	...
Jhansi	530	1.9	...	...	...	517.0	1.9	...	...	1.9	13.2	13.2	35.8	22.6	...	1.9	1.9	11.3	77.4	1,011.3	35.8	17.0	26.4	13.2	20.8
Nowgong	1,012	...	...	1.0	...	140.3	4.9	...	...	1.0	5.9	9.9	9.9	3.0	...	...	...	15.8	32.6	420.0	18.8	4.0	8.9	4.9	14.8
Goonā	382	...	...	...	...	159.7	13.1	...	...	5.2	7.9	...	7.9	...	...	...	...	2.6	34.0	628.3	28.8	...	13.1	7.9	13.1
Agar	358	64.2	...	...	...	184.4	...	...	...	...	2.8	30.1	25.1	2.8	...	5.6	...	19.6	36.3	689.9	25.1	...	5.6	22.3	8.4
Sehore	632	82.3	...	...	...	797.5	11.1	...	...	...	15.8	14.2	9.5	7.9	...	1.6	36.4	25.3	1,253.2	28.5	14.2	...	6.3	4.7	
Indore	248	...	...	...	...	250.0	20.2	...	...	...	...	28.2	36.3	4.0	...	12.1	...	4.0	96.8	649.2	28.2	18.4	8.1	28.2	12.1
Mhow	1,270	...	...	...	...	321.3	35.4	...	...	8	1.6	17.3	8.7	35.2	7.1	...	4.7	9.4	63.8	769.3	31.5	5.5	22.8	18.9	16.5
GROUP VIII.— SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	10,994	8.1	...	4	...	520.8	13.2	10.7	...	1.0	4.1	15.3	23.6	26.2	9.8	...	2.5	2.9	10.4	59.9	1,023.8	36.5	13.2	12.3	16.6	17.8
A.																										
Asirgarh	37	...	...	...	...	351.4	54.1	...	...	...	...	...	...	...	...	...	...	...	168.1	567.6	...	...	...	...	...
Saugor	961	...	...	...	...	105.1	12.5	...	...	1.0	14.6	15.6	4.2	2.1	...	...	1.0	8.3	48.9	359.0	13.3	15.6	9.4	11.4	12.5
Sutna	31	...	...	...	...	129.0	32.3	...	...	...	...	96.8	32.3	32.3	...	...	...	...	32.3	741.9	32.3	...	...	...	32.3
Jubbulpore	755	...	2.6	...	...	268.9	...	...	1.3	4.0	5.3	6.0	21.2	...	...	...	...	1.3	11.9	545.7	22.5	2.6	1.3	5.3	2.6
Sambalpur	267	...	3.7	...	...	318.4	...	...	...	...	41.2	63.7	7.5	...	7.5	...	26.2	209.7	962.5	74.9	82.4	...	48.7	78.7	
Raipur	376	...	...	...	...	146.3	...	2.7	2.7	8.0	31.9	16.0	2.7	...	...	5.3	93.1	212.8	710.1	79.8	16.0	37.2	31.9	127.7	
Kamptee	612	...	...	...	...	297.4	8.2	...	4.9	8.2	...	8.2	...	...	...	...	...	49.0	596.4	6.54	16.3	9.8	...	4.9	34.3
Sitabaldi	81	...	...	...	...	592.6	...	24.7	...	...	...	24.7	37.0	...	...	...	...	24.7	925.9	12.35	12.3	...	...	...	24.7
B.																										
Ellichpur	779	35.9	1.28	...	...	240.1	2.6	...	...	...	6.4	12.8	14.1	1.3	...	1.3	...	...	33.4	469.8	11.6	9.0	...	9.0	15.4
Hingoli	1,146	...	...	...	...	450.3	3.5	...	9	2.6	5.2	19.2	23.6	8.7	...	...	9.6	40.1	790.6	6.11	26.2	6.1	14.0	7.0	13.1
Jalna	718	...	...	...	...	168.5	11.1	...	...	...	2.8	2.8	12.5	2.8	...	...	4.2	...	16.7	348.2	13.9	...	7.0	7.0	2.8
Aurangabad	1,181	15.2	...	...	...	196.4	3.4	...	8	...	4.2	11.9	31.3	...	...	...	8	1.7	65.2	579.2	23.7	32.2	8	22.0	10.2
Ahmednagar	84	...	...	...	...	178.6	...	...	...	...	35.7	23.8	...	...	...	...	...	11.9	59.5	464.3	35.7	23.8	11.9	23.8	...
Mominabad	371	...	...	...	...	277.6	18.9	...	2.7	8.1	...	10.8	5.4	...	...	...	...	53.9	676.5	5.39	32.3	5.4	10.8	16.2	21.6
Bolarum	1,213	18.1	...	...	...	177.2	5.8	2.5	...	1.6	3.3	24.7	26.4	8	...	...	4.9	11.5	28.9	524.3	21.4	1.6	2.5	8.2	16.5
Secunderabad	2,658	...	...	...	...	97.4	4.5	27.5	3.4	1.1	5.3	11.7	18.4	1.9	4	1.9	...	25.0	51.9	481.2	25.2	10.2	7.5	12.8	21.4
Raicher	201	...	...	...	...	24.9	5.0	...	...	...	19.9	19.9	14.9	...	...	...	...	39.8	19.9	318.4	24.9	10.0	...	10.0	...
Belgam	868	...	2.3	...	...	107.1	4.6	12.7	5.8	...	8.1	33.4	11.5	1.2	...	1.2	...	26.5	137.1	690.1	36.9	13.8	41.5	13.8	68.0
Satara	150	...	...	...	...	66.7	...	...	...	6.7	...	6.7	...	...	...	...	...	...	6.7	166.7	6.7	...	6.7	...	...

NATIVE TROOPS, 1901.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS. For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.													2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.
Poona	1,36 {	...	...	...	...	3877	191	66	15	22	88	411	132	95	...	15	81	103	727	9501	385	154	14	191	242
Kirkee	540 {	...	...	...	19	4722	37	...	37	56	74	500	148	19	37	19	37	74	519	9500	222	93	130	111	185
Sirur	78 {	...	...	...	...	1667	...	...	...	128	...	236	641	...	...	...	128	...	769	5769	385	...	385	385	...
GROUP IX.— DECCAN.	14,468 {	47	...	3	1	2241	67	68	15	17	64	193	185	29	2	9	19	135	584	6024	264	124	97	132	232
Bombay	1,264 {	...	...	8	...	4130	309	111	16	16	198	324	728	364	...	32	40	229	593	1,0396	364	40	301	127	127
Cannanore	676 {	...	...	...	...	636	30	104	50	15	...	80	192	15	...	...	104	962	5355	206	355	...	414	192	
Trivandrum	82 {	...	...	...	...	488	...	122	...	...	...	360	244	...	...	...	...	...	...	3171	122	...	...	...	...
GROUP X.— WESTERN COAST.	2,021 {	...	...	5	...	2815	203	109	30	15	124	247	520	233	...	20	25	178	693	8422	329	143	188	218	143
A.																									
Bellary	956 {	...	31	...	...	3223	21	...	10	10	63	31	241	...	...	10	21	105	659	9268	502	73	105	209	272
Bangalore	3,030 {	3	...	30	...	1406	43	15	46	30	135	241	142	10	...	15	...	106	380	5667	274	155	20	69	135
B.																									
Trichinopoly	648 {	...	...	...	...	586	31	...	31	77	15	123	123	77	...	...	...	62	370	3688	170	93	123	108	46
Pallavaram	65 {	...	...	...	...	1846	...	154	...	...	...	769	769	...	...	...	1231	462	6615	308	154	...	308	...	
St. Thomas' Mount. }	574 {	...	17	17	...	1585	...	17	17	122	...	348	32	...	105	...	279	209	7056	270	33	17	35	122	
Madras	742 {	...	40	13	...	1599	67	...	108	40	...	189	714	81	...	13	...	364	647	7291	391	13	162	216	256
C.																									
Vizianagram	422 {	...	...	...	...	2536	47	450	47	...	47	142	190	...	...	...	100	995	9123	332	190	142	142	521	
GROUP XI.— SOUTHERN INDIA.	6,436 {	2	11	17	...	1804	37	37	44	30	89	162	249	34	...	19	3	163	477	6551	316	112	67	115	183
Maymyo	787 {	...	...	...	...	2922	432	...	...	25	241	203	...	...	...	...	101	191	7395	254	...	76	76	38	
Kalanaga	26 {	...	...	...	...	3077	...	...	...	385	...	395	...	...	...	...	789	...	8846	385	...	...	...	...
Kohima	484 {	41	...	...	...	6694	...	...	41	83	124	83	372	21	...	21	331	620	1,1467	475	83	103	145	289	
Shillong	728 {	591	...	...	...	2910	27	27	...	165	82	261	632	165	...	69	69	769	8330	440	96	151	110	412	
Gantak	177 {	...	...	...	...	1921	56	...	...	113	220	282	113	...	...	...	113	1243	8079	339	282	...	508	452	
Darjeeling	10 {	...	...	...	...	1000	...	...	...	...	...	...	...	...	...	...	...	1000	8000	...	...	...	...	1000	
Almora	629 {	...	...	...	...	1126	325	16	48	79	159	525	382	16	...	16	...	32	827	8290	429	360	64	223	175
Ranikhet	43 {	...	...	...	...	465	...	...	...	...	...	...	...	...	...	...	...	...	...	1860	...	...	...	233	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.													2. DEATH-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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anaemia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.
Naini Tal	143	...	...	...	...	146'0	...	...	...	35'0	14'0	...	...	...	...	35'0	...	28'0	517'5	28'0	14'0	...	...	14'0	
Lansdowne	2,249	...	...	...	...	171'2	4'0	...	4	7'6	16'5	15'1	6'7	4	...	5	4	11'1	24'0	534'0	23'1	6'7	2'7	11'1	3'6
Simla	124	16'1	...	8'1	...	72'6	...	...	...	...	...	...	8'1	...	...	...	...	16'1	8'1	354'8	16'1	8'1	...	...	...
Jutogh	197	...	...	...	...	203'0	15'2	...	...	5'1	10'2	30'5	15'2	...	...	...	...	...	15'2	522'8	20'3	5'1	...	...	10'2
Dharmasala	1,307	59'4	...	...	...	110'2	17'2	1'4	...	8'6	10'7	10'0	10'0	7'4	...	7	...	12'9	83'0	490'3	27'9	15'7	7	36'5	30'1
Bakloh	1,082	112'8	...	...	...	207'0	51'8	...	9	23'1	7'4	12'9	12'9	9	...	1'8	1'6	18'5	37'0	772'6	34'2	9	9'2	16'2	16'6
Murree	27	...	...	...	...	37'0	...	...	...	...	...	...	...	...	...	...	...	...	259'3	481'5	37'0	148'1	...	...	...
Khyragully	96	...	...	...	...	31'2	...	...	...	10'4	10'4	...	...	...	...	...	...	...	...	239'6	10'4	...	...	...	...
Baragully	83	...	...	...	...	72'3	...	...	...	12'0	24'1	30'1	...	...	...	...	...	...	12'0	349'4	13'0	...	...	12'0	...
Kalabagh	86	23'3	...	...	...	69'8	...	...	...	11'6	11'6	...	...	...	...	...	...	...	46'5	348'8	11'6	...	23'3	...	23'3
Gilgit	60	16'7	...	...	...	66'7	...	...	...	...	33'3	...	...	...	...	...	...	...	166'7	483'3	33'3	...	...	166'7	...
Chitral	38	...	...	...	...	236'8	...	...	...	26'3	...	216'5	...	...	...	...	...	...	...	578'9	26'3	...	...	...	...
Kila Drosh	967	...	...	...	...	317'5	3'7'5	...	1'0	4'2	3'1	27'9	26'9	12'4	...	1'0	...	6'2	7'2	1,142'7	31'0	...	...	5'2	2'1
Abbottabad	2,109	...	...	...	...	130'4	15'2	1'4	...	17'5	15'6	44'6	37'9	5'7	...	5	3'3	31'3	38'9	382'3	37'9	6'6	5'2	9'5	17'5
Cherat	71	...	...	...	...	225'4	...	...	...	...	28'2	154'9	...	...	...	...	...	...	...	535'2	14'1	...	...	...	...
Hangu	149	...	...	...	...	664'4	13'4	...	...	47'0	20'1	53'7	...	...	...	...	...	...	6'7	6'7	986'6	20'1	6'7	...	...
Miran Shah	633	...	...	...	...	856'2	6'3	...	...	6'3	14'2	61'6	26'9	...	...	...	1'6	52'1	3'2	1,383'9	33'2	...	...	1'6	1'6
Boya	213	...	...	...	...	910'8	4'7	...	...	4'7	14'1	18'8	46'0	23'5	...	...	...	4'7	14'1	1,582'2	28'2	4'7	...	...	9'4
Datta Khel	960	...	...	...	...	743'8	46'9	...	4'2	4'2	51'0	200'0	128'1	13'5	...	...	1'0	26'0	10'4	1,608'3	37'5	1'0	4'2	5'2	
Haldari Kach	28	...	...	...	...	500'0	...	...	...	35'7	...	178'6	71'4	...	...	...	...	...	...	1,321'4	35'7	...	...	...	...
Sarwekai	670	...	1'5	...	...	635'8	10'4	...	1'5	...	49'3	73'1	188'1	20'9	...	3'0	13'4	20'6	3'0	1,535'8	34'3	1'5	...	...	1'5
Nagandioba	69	...	...	...	...	1,130'4	...	...	...	14'5	29'0	144'9	...	...	...	...	...	...	...	1,710'1	29'0	...	...	...	...
Spin	64	...	...	...	...	421'8	46'9	...	...	15'6	31'2	140'6	...	...	...	...	...	15'6	...	906'2	31'2	...	...	...	...
Wana	742	...	...	...	...	1,582'2	74'1	...	...	2'7	59'3	141'5	138'8	40'4	...	...	5'4	16'2	13'5	2,650'9	66'0	...	...	9'4	4'0
Waziribagh	250	...	...	...	...	332'0	...	...	8'0	4'0	24'0	52'0	116'0	20'0	...	4'0	184'0	4'0	...	1,350'0	68'0	...	...	...	...
Mir Ali Khel	285	...	...	...	...	228'1	...	...	7'0	3'5	49'1	49'1	31'6	21'1	...	7'0	84'2	3'5	7'0	680'7	35'1	...	...	3'5	3'5
Fort Sandeman	409	56'2	...	2'4	...	618'6	17'1	...	...	9'8	17'1	31'8	78'2	14'7	...	...	9'8	12'2	31'8	1,100'7	53'8	...	4'9	7'3	19'6
Musa Khel	26	...	...	...	...	730'8	38'5	...	...	...	38'5	230'8	115'4	76'9	...	...	...	38'5	38'5	1,576'9	38'5	...	...	...	...
Khan Mohamed Kot.	47	...	...	...	...	2,101'5	42'6	...	...	42'6	127'7	191'5	212'8	...	...	...	106'4	21'3	3,446'8	83'1	...	...	...	21'3	
Murgha	46	...	...	...	...	891'3	...	...	...	...	...	...	65'2	...	...	...	...	...	...	1,152'2	21'7	...	...	...	...

NATIVE TROOPS, 1901.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and COMMANDS.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Scarvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.	
Loralai . . .	856 {	...	...	...	...	254'7	32'7	...	5'8	2'3	17'3	21'0	66'6	15'2	...	3'5	8'2	38'6	21'0	745'3	31'5	...	5'8	2'3	12'9
Gumtaz . . .	59 {	...	...	...	...	576'3	...	...	...	...	16'9	16'9	84'7	...	...	...	...	...	...	864'4	16'9	...	...	...	...
Sharigh . . .	41 {	...	...	...	...	3,731'7	97'6	...	...	...	...	48'8	97'6	48'8	...	...	...	24'4	24'4	3,268'2	48'8	...	24'4	...	...
Quetta . . .	2,429 {	2'1	...	2'5	...	466'9	3'1	3'7	1'6	6'2	16'1	32'5	51'9	15'6	...	8	5'8	24'3	39'9	1,007'4	37'9	5'4	5'4	8'6	20'6	
Peshin . . .	289 {	96'9	...	...	...	570'0	10'4	3'5	...	...	31'1	51'9	45'0	41'5	...	...	13'8	24'2	1,245'7	45'0	3'5	...	17'3	3'5	
Shelabagh . . .	196 {	...	...	...	...	362'2	15'3	...	...	5'1	5'1	35'7	91'8	35'7	...	...	...	30'6	35'7	964'3	30'6	25'5	...	10'2	...
Spinwana . . .	30 {	...	...	...	...	133'3	...	...	...	33'3	...	100'0	...	...	...	...	...	...	...	433'3	...	...	...	...	...
Chaman . . .	651 {	...	...	...	...	314'9	30'7	...	4'6	3'1	18'4	46'1	26'1	9'2	...	1'5	3'1	15'4	21'5	852'5	27'6	1'5	3'1	4'6	12'3
Mount Abu . . .	80 {	37'5	...	...	...	100'0	...	...	...	...	12'5	12'5	12'5	...	...	...	...	12'5	...	200'0	...	...	...	...	...
Ootacamund . . .	162 {	...	...	...	...	39'2	...	107'8	...	...	19'6	117'6	19'6	9'8	...	29'4	...	9'8	68'6	705'9	19'6	19'6	...	...	49'0
GROUP XII.— HILL STA- TIONS.	20,936 {	15'0	'1	'4	'4	391'3	33'1	1'4	1'4	7'4	18'6	42'8	28'9	10'7	...	1'1	6'5	18'8	33'2	545'1	34'6	5'9	3'8	10'4	13'4	
Marching Bengal. in }	2,334 {	...	'9	...	...	88'7	7'7	'4	...	1'7	6'4	6'4	30'8	'9	...	'4	1'3	4'7	12'4	244'6	4'7	4'3	2'1	2'1	3'9
Marching Punjab. in }	5,559 {	...	'2	...	...	801'0	3'1	21'9	'9	1'4	11'2	39'4	76'5	18'9	...	'4	20	12'1	18'7	1,285'3	33'5	4'9	2'5	5'9	5'4
Marching Madras. in }	1,478 {	...	...	...	...	21'7	1'1	'7	...	...	1'4	2'0	12'2	1'4	...	...	...	2'7	5'4	85'9	2'0	1'4	'7	1'4	2'0
Marching Bombay. in }	1,892 {	...	...	'5	'5	112'1	4'8	'5	...	...	9'0	15'9	35'4	10'6	...	1'1	3'8	6'3	16'9	328'2	7'9	5'8	1'1	3'7	6'3
Hyderabad Con- tingent march- ing.	219 {	...	...	...	...	18'3	...	...	...	...	...	...	...	...	...	...	...	...	...	41'1	4'6	...	...	...	...
Mahsud Blockade	358 {	...	...	...	...	424'6	22'3	...	2'8	...	111'7	105'5	58'8	67'0	...	...	...	...	11'2	1,891'1	25'1	2'8	2'8	2'8	2'8
Malakand Force.	2,979 {	134'9	...	...	...	269'2	1'7	...	'3	2'0	16'8	85'9	76'2	16'4	...	2'0	1'3	3'0	11'7	861'7	27'9	2'0	'7	6'4	2'7
Kohat-Kurram Force.	1,696 {	11'8	'6	...	...	205'2	14'2	...	'6	6'3	7'1	56'6	34'8	21'2	...	'6	'6	2'4	11'8	710'5	25'9	1'2	...	5'9	4'7
EXTRA INDIA.																										
Chabbar . . .	51 {	...	...	...	...	1,843'1	19'0	...	...	...	19'0	196'1	215'7	19'0	...	...	58'8	...	117'6	2,941'2	78'4	19'6	...	78'4	19'6
Jask . . .	50 {	...	...	...	...	180'0	60'0	...	...	...	100'0	20'0	...	...	...	20'0	100'0	60'0	40'0	60'0	20'0	...	...	40'0	...
Muscat . . .	21 {	...	...	...	...	1,142'9	238'1	...	...	...	...	...	...	...	...	47'6	...	...	47'6	1,052'4	47'6	...	...	...	47'6
Bushire . . .	36 {	...	...	...	...	35'7	...	...	...	17'9	53'6	35'7	...	...	...	...	...	...	...	214'3	17'9	...	...	...	...
Bagdad . . .	26 {	...	...	...	...	...	...	...	...	...	76'9	38'5	...	...	...	...	...	...	...	153'8	...	...	...	...	...
Aden . . .	729 {	...	...	...	...	425'2	21'5	...	1'4	16'5	72'7	78'2	28'8	...	1'4	16'5	21'9	23'3	1,006'1	30'2	2'7	2'7	6'9	11'0	

STATIONS AND COMMANDS.	Average annual strength.	1. ADMISSION-RATE.														2. DEATH-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.	Diarrhea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.				
Khorramsar	43	...	...	...	...	790'7	...	23'3	...	...	23'3	209'3	23'3	...	...	...	...	23'3	...	1,651'2	46'5	...	...	...	...
Sheikh Othman	32	...	...	...	...	593'8	31'2	...	...	...	...	156'2	31'2	...	...	...	...	31'2	1,000'0	...	31'2	...	...	...	...
Perim	31	...	...	...	...	290'3	32'3	...	...	...	...	32'3	290'3	...	...	...	32'3	32'3	1,000'0	...	32'3	...	...	32'3	...
Berbera	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ad Diriga Field Force.	21	...	...	...	...	...	...	...	...	...	...	190'5	...	...	...	...	...	...	523'8	142'86	...	...	...	...	...
Mauritius	1,611	109'2	...	...	...	771'6	3'1	...	6'6	1'9	17'4	104'3	10'6	...	...	...	15'5	29'2	1,250'2	68'3	1'2	2'5	15'5	9'9	
Colombo	467	...	...	...	...	94'2	12'8	...	4'3	2'1	15'0	25'7	53'5	...	...	...	25'7	92'1	612'4	40'7	23'6	2'1	21'4	45'0	
Trincomalee	161	6'2	...	...	...	68'3	12'4	...	...	...	...	49'7	62'1	...	...	...	111'8	87'0	875'8	37'3	43'5	...	12'4	31'1	
Kandy	127	...	...	...	...	31'5	...	39'4	...	...	15'7	7'9	23'6	...	...	...	7'9	63'0	543'3	31'5	15'7	15'7	...	31'5	
Singapore	934	...	...	...	...	204'5	1'1	15'0	3'2	5'4	3'2	16'1	41'8	1'1	...	...	15'0	69'6	567'4	19'3	12'8	12'8	30'0	13'9	
INDIA	122,806	9'7	'3	'4	'2	358'4	14'3	4'9	1'3	4'2	12'7	32'6	43'2	8'9	'1	1'0	3'2	15'7	34'3	828'8	30'3	7'0	5'2	9'6	12'5				
INDIA	119,505	8'5	'3	'5	'2	355'8	14'5	4'8	1'3	4'3	12'9	32'9	42'4	9'0	'1	1'0	3'3	15'5	33'7	820'3	29'8	6'9	5'2	9'3	12'3				
BENGAL	26,200	7'5	'9	'3	'4	261'8	9'7	2'5	1'1	5'8	9'2	20'0	31'0	5'8	'2	'0	1'9	13'4	30'2	666'8	27'4	7'6	4'8	7'8	10'0				
PUNJAB	46,050	14'7	'1	'4	'3	424'9	21'7	3'1	'8	5'3	17'4	46'2	54'2	11'6	...	'5	3'1	17'7	20'6	944'1	30'5	3'5	2'3	6'8	8'0				
MADRAS	18,622	'2	'4	'7	...	262'2	6'3	14'1	3'0	1'7	5'0	22'6	27'1	2'9	'1	1'5	'2	18'3	46'8	698'6	28'4	9'3	7'5	12'2	17'5				
BOMBAY	22,428	3'2	...	'6	'1	431'6	14'6	4'5	1'4	3'5	15'3	31'7	40'8	13'3	'1	2'1	8'2	14'0	53'5	933'3	35'0	10'3	9'7	13'5	20'0				
HYDERABAD CONTINGENT.	5,826	11'7	...	...	...	237'4	5'7	'5	'3	1'0	5'0	14'1	21'1	2'7	...	'3	1'7	6'0	37'8	543'4	20'6	10'0	5'0	11'0	11'8	
China Expeditionary Force.	8,166	1'1	...	'5	'4	65'3	11'8	'9	1'5	10'4	25'6	78'5	27'0	7'0	'4	'9	5'1	16'3	42'9	455'4	29'1	5'4	2'6	16'5	18'4				
China Garrison	12,254	...	...	...	'4	75'0	13'3	'4	'9	11'5	8'4	56'8	68'3	29'7	1'8	...	'4	6'7	58'1	520'0	32'4	12'4	'9	9'8	27'1	
Ogaden Punitive Force.	236	...	...	...	...	1,737'3	29'7	...	...	4'2	8'5	33'9	114'4	59'3	...	...	12'7	38'1	105'9	2,711'9	63'6	21'2	21'2	50'8	12'7

* Excluding troops in China and in British East Africa and including troops in Extra India not in the Indian Command.
† Excluding also troops in Extra India not in the Indian Command.
‡ As far as returns have been received.

NATIVE TROOPS, 1901.

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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancres.	Secondary Syphilis.	Gonorrhoea.	Dracunculus Medicinalis.	Other Entozoa.	
Port Blair . . .	298	31	3	3	5	4	...	1	...	4	7	83	3	1	3	3
Rangoon . . .	1,154	3	116	11	1	5	4	2	10	88	1	3	...	26	93	706	34	12	25	27	29	2	
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,452	3	141	13	3	5	4	2	15	92	1	4	...	30	100	791	37	13	28	30	29	2	
Thayetmyo . . .	663	77	3	105	2	2	1	14	9	3	1	...	2	24	480	18	8	...	10	6		
Keng Tung . . .	292	...	...	...	...	803	4	26	...	...	...	2	8	...	...	...	1	9	920	18	...	4	5	...	...	
Fort Stedman . . .	331	...	...	...	...	172	...	...	1	...	...	22	8	10	...	...	8	17	328	12	2	6	9	...	...	
Meiktila . . .	196	...	...	...	...	17	1	...	...	...	...	2	...	...	...	...	7	7	85	5	6	...	1	1	...
Fort Dufferin . . .	1,539	...	...	...	...	642	10	...	1	2	4	114	47	5	1	1	50	43	1,447	52	7	6	16	14	...
Bhamo . . .	888	...	...	...	...	1,119	9	...	...	...	2	35	62	...	1	...	18	9	1,521	32	2	4	3	...	...	
Myitkyina . . .	155	...	...	...	...	86	...	...	...	...	1	11	6	3	...	...	2	3	175	6	...	2	1	...	...	
GROUP II.—BURMA INLAND . . .	4,684	2,916	27	131	4	4	8	198	142	21	1	3	1	88	112	4,950	142	25	6	42	39	1	2	
Manipur . . .	719	...	6	43 ^b	15	...	1	1	...	2	10	15	22	...	1	...	5	14	783	40	...	1	9	4	...			
Sadiya . . .	72	...	...	51	...	...	...	...	...	2	13	...	...	...	...	...	1	...	91	2	...	...	...	...	...
Dibrugarh . . .	285	1	...	271	3	...	3	3	3	16	19	2	1	...	1	36	5	480	19	...	3	2	...	...		
Sikhar . . .	395	...	1	91	2	...	1	2	...	8	21	4	1	...	...	...	6	229	8	1	...	5	...	...		
GROUP III.—ASSAM . . .	1,472	1	...	7	851	20	...	5	5	5	36	68	28	1	2	1	47	25	1,592	68	1	1	12	11	...			
Fort William . . .	57	...	2	397	16	...	4	5	28	41	1	2	...	...	...	16	29	640	28	7	4	10	8	...	
Alipore . . .	824	1	...	361	34	...	2	3	25	30	1	2	...	6	2	18	6	13	789	34	3	2	...	8	1			
Ballygunge . . .	36	...	...	2	...	...	...	...	3	...	...	...	...	...	...	...	1	20	1	...	1	...	...	...	
Dum-Dum . . .	17	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	7	...	...	...	...	...	...
Barrackpore . . .	281	...	...	71	...	...	...	2	5	6	1	2	...	...	...	4	11	133	13	2	2	2	4	...	
Buxa . . .	283	...	...	90	7	...	1	1	...	2	13	8	1	...	2	4	235	10	2	...	2	...	...	...	
Cuttack . . .	274	1	...	16	4	...	2	...	7	3	2	...	...	...	...	19	15	124	11	7	2	1	5	2	
GROUP IV.—BENGAL AND ORISSA.	2,287	2	2	940	55	...	5	5	10	70	94	22	1	3	18	47	73	1,948	96	21	11	16	25	3				

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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculæ Medicinis.	Other Entozoa.	
Kajeri Kach . . .	270	...	...	...	517	1	...	...	1	5	13	35	10	...	11	3	1	733	19	...	...	1	...	3	...	...	...
Sibi . . .	102	...	...	...	63	2	2	...	...	2	6	8	6	...	...	1	1	132	4	...	...	...	1	...	...	...	...
C.																												
Jacobabad . . .	514	...	...	1	96	21	...	...	...	10	13	21	...	...	1	1	11	385	16	...	3	3	5	1	...	...	...
Hyderabad . . .	446	...	...	...	118	1	2	...	...	3	11	8	...	...	...	3	30	332	15	7	1	6	16	6	...	...	...
Kurrachee . . .	644	...	...	...	203	5	...	...	1	5	16	40	1	1	3	5	38	434	18	5	2	10	21	1	...	...	...
GROUP VII.—N.W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	16,951	29	115	2	7,299	280	17	15	81	247	676	944	205	6	78	347	318	16,221	541	43	36	88	151	54	10
		...	1	1	2	16	22	1	3	9	53	12	2	3	...	1	1	...		171
A.																												
Bhuj . . .	273	...	...	...	271	1	...	...	1	2	18	2	4	...	...	2	12	368	10	2	2	4	4	1	...	...	...
Rajkot . . .	262	...	...	...	296	1	...	1	1	4	4	10	8	...	...	3	31	428	10	8	9	9	5	7	...	...	...
Deesa . . .	860	1,428	5	33	1	3	6	27	84	13	10	9	6	29	2,152	64	1	0	10	9	19	1
Sadra . . .	9	...	...	...	3	3	...	...	...	...	...	...	1	2	...	...	...	10	...	...	...	...	...	...	...	...	...
Ahmedabad . . .	505	...	...	...	345	4	...	2	3	12	41	8	2	3	1	5	50	661	22	4	16	12	18	11	...	...	...
Baroda . . .	256	...	...	...	225	3	...	6	3	3	9	5	...	3	1	23	352	11	1	3	10	9	1	...	...	...
B.																												
Barwani . . .	70	...	...	...	9	...	...	...	3	4	1	...	...	...	...	2	25	1	2	...	...	...	5	...	...	...
Alirajpore . . .	39	...	...	1	8	...	...	...	1	5	...	1	...	1	...	1	29	1	...	...	...	1	...	...	...	...
Sirdarpore . . .	266	...	...	...	82	14	...	1	11	15	...	4	...	...	...	17	276	10	6	...	1	10	25	...	...	...
Jhabwa . . .	32	...	...	...	8	...	...	...	...	...	...	...	...	...	...	1	29	1	1	...	...	...	14	...	...	...
Dungarpur . . .	35	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Kherwara . . .	232	127	2	8	...	7	16	15	3	2	...	1	5	18	347	19	...	3	5	10	71	1
Kotra . . .	178	...	...	...	31	5	...	...	1	3	...	1	...	...	1	8	77	4	...	2	2	4	13	...	...	...
Udaipur . . .	61	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	2	...	...	...
Tedgarh . . .	40	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...
Erinpura . . .	507	...	...	...	327	7	...	...	4	22	9	10	13	...	3	2	24	635	21	2	3	9	10	19	...	...	...
Neemuch . . .	405	...	...	...	128	5	...	1	2	4	6	3	3	...	1	7	53	361	19	20	3	19	11	18	...	...	...
Deoli . . .	260	13	...	...	106	...	2	...	2	4	3	2	...	1	1	...	11	219	9	1	...	7	3	...	...	...	...
Beawar . . .	47	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...
Nasirabad . . .	681	...	...	...	200	8	...	1	1	4	15	17	4	...	3	3	7	480	29	5	20	10	19	12	...	...	...
Ajmer . . .	486	141	5	18	...	3	6	3	...	5	1	68	349	10	36	...	17	15	7
Sambhar . . .	21	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	5	...	...	...	...	1	...	...	...	...

NATIVE TROOPS, 1901.

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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Draconculus Medicinosis.	Other Entozoa.	
Jaipur	60					31					3	1	1						5	52	1	5						
Agra	848					426	14	59	2	7	19	27	35	8		2	1	8	29	993	34	10	4	9	6	5		
Gwalior	20					9														13								
Jhansi	530	1				274	1		1	7	7	19	10		1	1	6	41	536	19	9	14	7	11	5			
Nowgong	1,012		1			142	5		1	6	10	10	3				16	33	425	19	4	9	5	15	4			
Goona	382					61	5		2	3		3					1	13	240	11		5	3	5	2			
Agar	358	23				66				1	14	9	1		2		7	13	247	9		2	8	3	1			
Schore	632	50				504	7			10	9	6	5			1	23	16	792	18	9		4	3	1			
Indore	248					62	5				7	9	1		3		1	24	161	7	12	2	7	3	1			
Mhow	1,270					405	45		1	2	22	11	46	9		6	12	81	977	40	7	29	24	21	14	2		
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	10,994	89	4			5,726	145	118	11	45	168	239	288	168	27	32	114	658	11,256	402	145	135	182	196	258	4		
A.																												
Asirgarh	37					13	2												4	21		3		1				
Saugor	951					101	12		1	14	15	4	2		1	8	47	345	13	15	9	11	12	8				
Sutna	31					4	1				3	1	1					1	23	1				1				
Jubbulpore	755					203			1	3	4	5	10				1	9	412	17	2	1	4	2				
Sambalpur	267					85					11	17	2		2		7	56	257	20	21		13	21				
Raipur	376					55			1	1	3	12	6	1		2	35	80	267	30	6	14	12	48				
Kamptee	612					182	5		3	5		5						30	365	10	6		3	21				
Sitabaldi	81					48		2			2	3						2	75	1				2				
B.																												
Ellichpur	779	28				187	2			5	10	11	1		1			26	366	9	7		7	12				
Hingoli	1,146					516	4		1	3	6	22	27	10			11	46	906	30	7	16	8	15	1	5		
Jalna	718					121	8			2	2	9	2			3		12	250	10		5	5	2				
Aurangabad	1,181	18				232	4		1		5	14	37			1	2	77	684	28	38	1	26	12				
Ahmednagar	84					15					3	2					1	5	39	3		1	2		1			
Mominabad	371					105	7		1	3		4	2					20	251	12	2	4	6	8				
Bolarum	1,213	22				215	7	3	2	4	30	32	1			6	14	35	636	26	2	3	10	20	5			
Secunderabad	2,658					259	12	73	9	3	14	31	49	5	1	5		68	138	1,279	67	27	20	34	57	6		
Raichur	201					5	1			4	4	3			1		8	4	64	5	2		2		3			

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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhoea.	Diacutaneous Medications.	Other Entozoa.		
Belgam	868	...	2	...	93	4	11	5	...	7	29	10	1	...	1	...	23	119	599	12	32	12	36	12	59	2	...		
Satara	150	...	...	...	16	...	...	...	...	1	...	...	...	...	...	...	...	1	25	1	1	...	...	...	...	...	...
Poona	1,362	...	...	...	528	26	9	2	3	12	50	18	13	...	2	11	14	99	1,294	9	52	21	19	26	33	10	...
Kirkee	540	...	1	...	255	2	...	2	3	4	27	8	1	2	1	2	4	28	513	4	12	5	7	6	10	1	...		
Sirur	78	...	...	...	13	...	...	...	1	...	2	5	...	...	...	1	...	6	45	1	3	3	3	...	...	...	...
GROUP IX.—DECCAN.	14,468	68	5	1	3,243	97	98	22	25	92	270	267	42	3	13	27	196	845	8,716	90	381	179	146	191	335	37	5		
Bombay	1,264	...	1	...	522	36	14	2	2	25	41	92	46	...	4	5	29	75	1,314	27	46	5	38	16	16	10	...		
Cannanore	676	...	...	...	43	2	7	4	1	...	6	13	1	...	...	7	65	362	3	20	24	...	28	13	...	...	...
Trivandrum	82	...	...	...	4	...	1	...	...	...	3	2	...	...	...	...	...	26	1	1	...	...	...	...	...	...	...
GROUP X.—WEST-ERN COAST.	2,021	...	1	...	569	41	22	6	3	25	50	107	47	...	4	5	26	140	1,702	30	67	29	38	44	29	10	...		
A.																													
Bellary	956	...	3	...	375	2	1	1	6	3	21	1	2	10	63	886	15	48	7	16	26	26	
Bangalore	3,030	1	9	...	426	13	4	14	9	41	73	43	3	...	4	...	32	115	1,717	32	83	47	6	21	41	1	...		
B.																													
Trichinopoly	648	...	...	...	38	2	...	2	3	1	8	8	5	...	...	4	24	239	4	11	6	8	7	3	1	...	...
Pallavaram	65	...	...	...	12	...	1	...	...	...	5	5	...	...	...	8	3	43	...	2	1	...	2	...	...	...	...
St. Thomas' Mount	574	...	1	...	91	...	1	1	7	...	20	3	...	6	...	16	12	405	2	16	2	1	2	7	2	...	...
Madras	742	...	3	1	...	112	5	...	8	3	14	53	6	...	1	...	27	48	541	8	29	1	12	10	19	...	...
C.																													
Vizianagram	422	...	...	...	107	2	15	2	...	2	6	8	...	...	...	8	42	385	5	14	8	6	6	22	...	...	...
GROUP XI.—SOUTH-ERN INDIA.	6,436	1	7	11	1,161	24	24	28	19	57	104	160	22	...	12	2	103	307	4,216	66	204	72	43	74	118	4	...		
Maymyo	787	...	...	...	230	34	...	...	...	2	19	16	...	...	...	15	15	582	7	20	...	6	6	3	...	...	...
Kalanaga	26	...	...	...	8	...	...	1	...	1	...	...	...	...	...	2	...	23	...	1	...	...	...	...	...	...	...
Kohira	484	...	...	...	324	...	2	4	6	4	18	1	...	1	16	30	555	2	23	4	5	7	14	...	...	...
Shillong	728	43	...	...	214	2	2	12	6	19	46	12	...	5	5	36	621	10	32	7	11	8	30	...	...	...
Gantak	177	...	...	...	34	1	...	...	2	4	5	2	...	...	2	22	143	...	6	5	...	9	8	...	...	...
Darjeeling	10	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	8	...	...	...	...	1	...	...	...
Almora	629	...	...	...	74	33	1	3	5	16	33	24	1	...	1	...	2	53	522	4	27	23	4	14	11	...	

NATIVE TROOPS, 1901.

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.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancre.	Secondary Syphilis.	Gonorrhœa.	Dracunculæ Medi- cinitis.	Other Entozoa.
Ranikhet	43			2				1					1		1	8				1				
Naini Tal	143			21				5	2				5		4	74	4	2						
Lansdowne	2,240	1 2	2	383	9	1	17	37	34	15	1		2	1	25	54	1,201	52	15	6	25	8	5	
Simla	124	2	1	9						1					2	1	44	2	1				1	
Jutogh	197			40	3			1	2	6	3				3	103	4	1			2			
Dharmasala	1,397	83		154	24	2	12	15	15	14	10		1		18	116	685	39	22	1	51	42	1	
Bakloh	1,082	122		224	36		1	25	8	14	1		2	2	20	40	836	37	1	10	11	18		
Murree	27			1											7	13	1	4				3		
Khyragully	96			3				1	1							23	1							
Baragally	83			6				1	2	3					1	29	1			1		1		
Kalabagh	86	2		6				1	1						4	30	1		2			2		
Gilgit	60	1		4					2						10	29	2			10				
Chitral	38			9				1		8						22	1							
Kila Drosh	567			365	307		1	4	3	27	26	12		1	6	7	1,105	30			5	2		
Abbottabad	2,109		5	275	32	3	37	33	94	80	12		1	7	66	82	1,228	80	14	11	20	37	3	
Cherat	71			16					2	11						38	1							
Hangu	149			99	2			7	3	8				1	1	147	3	1						
Miran Shah	633		1	542	4		4	0	39	17				1	33	2	876	21			1	1	1	
Boya	213			194	1		1	3	4	10	5				1	3	337	6	1			2	1	
Datta Khel	960			714	45		4	4	49	192	123	13		1	25	10	1,544	36		1	4	5	2	
Haidari Kach	28			14			1		5	2						37	1							
Sarwekai	670		1	426	7		1	33	49	126	14		2	9	14	2	1,029	23	1			1	1	
Nagandioba	69			78				1	2	10			1				118	2						

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.	Diarrhoea.	Hemic Abcess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhœa.	Utraculus Medicinis.	Other Entozoa.				
Spin	64					27	3					1	2	9					1		58	2									
Wana	742					1,174	55			2	44	105	103	30			4	12	10	1,967	49			7	3	5					
Waziribagh	250					83				2	1	6	13	29	5		1	46	1	339	17						16				
Mir Ali Khel	285					65				2	1	14	14	9	6		2	24	1	194	10			1	1	4					
Fort Sandeman	409	23	1			253	7			4	7	13	32	6			4	5	487	22			2	3	8	1	1				
Musa Khel	26					19	1				1	6	3	2			1	1	41	1											
Khan Mohamed Kot	47					103	2				2	6	9	10				5	1	162	4					1					
Murgha	46					41								3			1		53	1											
Loralai	856					218	28			5	2	15	18	57	13		3	7	33	638	27			5	2	11	1				
Gumbaz	59					34						1	5						51	1											
Sharigh	41					112	4						4	2				1	134	2			1								
Quetta	2,429	5	6			1,134	8			9	4	15	39	79	126		38	2	14	59	2,447	92			13	13	21	50	14	1	
Peshin	289	28				165	3			1		9	15	13				4	7	360	13			1		5	1				
Shelabagh	196					71	3			1	1	7	18	7				6	7	189	6			5		2		3			
Spinwana	30					4						1	3						13												
Chaman	651					205	20			3	2	12	30	17	6		1	2	10	553	18			1	2	3	8	1			
Mount Abu	80	3				8						1	1	1				1	16												
Ootacamund	102					4				11		2	12	2	1		3	1	7	72	2			2			5				
GROUP XII.—HILL STATIONS.	20,936	315	2	9	9	8,192	694	29	30	155	390	897	1,023	225	24	136	394	701	19,786	724	124	80	217	280	54	10					
Marching in Bengal	2,334		2			207	18			1		4	15	15	72		2		1	3	11	29	571	11		10	5	5	9		1
Marching in Punjab	5,559	1				4,453	19			122	5	8	62	219	425		105		2	11	67	104	7,145	186		27	14	33	30	8	1
Marching in Madras	1,478					32	2						2	3	18		2			4	8	127	3		2	1	2	3			
Marching in Bombay	1,892					212	9			1		17	30	67	20		2	11	12	32	621	15		11	2	7	12	2			
Hyderabad Contingent marching.	219					4														9	1										
Mahsud Blockade	358					152	8			1		40	70	209	24				4	677	9			1	1	1	1				
Malakand Force	2,979	402				802	5			1	6	50	256	227	49		6	4	9	35	2,567	83		6	2	19	8				
Kohat-Kurram Force	1,696	20	1			348	24			1	11	12	96	59	36		1	1	4	20	1,205	44		2		10	8				

NATIVE TROOPS, 1901.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and COMMANDS, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND COMMANDS.	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.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Primary Syphilis.	Soft Chancere.	Secondary Syphilis.	Gonorrhoea.	Dracunculus Meli-nensis.	Other Entozoa.		
EXTRA INDIA.																													
Chabbar	51	94	1	1	10	11	1	...	3	...	6	150	4	1	4	1	
Jask	50	...	...	...	9	3	...	...	...	5	1	...	...	...	1	5	3	2	33	1	...	...	...	...	...	...	...
Muscat	21	...	...	...	24	5	...	...	...	...	...	...	...	...	1	...	1	41	1	...	...	...	...	...	...	...	...
Bushire	56	...	...	...	2	...	...	...	1	3	2	...	...	...	...	...	...	12	1	...	...	...	...	...	...	...	...
Bagdad	26	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...
Aden	720	...	...	...	310	16	...	1	12	53	57	21	1	12	16	17	748	22	2	2	5	8	3	...	...	...	...
Khormaksar	43	...	...	...	34	1	...	...	...	1	9	1	...	...	...	1	...	13	2	...	...	...	...	...	...	...	...
Sheikh Othman	32	...	...	...	19	1	...	...	...	...	5	1	...	...	...	1	...	32	...	1	...	...	...	...	...	...	...
Peim	31	...	...	...	9	1	...	...	...	1	9	...	...	...	1	1	...	31	1	...	1	...	...	...	...	...	...
Berbera	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ad Dariga Field Force	21	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...
Mauritius	1,611	176	...	1,243	5	1	1	3	28	168	17	...	25	47	2,014	110	2	4	25	10	...	...	...	...	...	...	...
Colombo	467	...	...	44	6	2	1	2	12	25	...	12	43	286	10	11	1	10	21	...	...	...	...	...	...	...	...
Trincomalee	161	...	...	11	2	...	...	...	8	10	...	18	14	141	6	7	2	5	...	...	...	...	...	...	...	...	...
Kandy	127	...	...	4	...	5	...	2	1	3	...	1	8	69	4	2	2	4	...	...	...	...	...	...	...	...	...
Singapore	934	...	...	191	1	14	3	5	3	15	39	1	...	14	68	530	18	12	12	28	13	...	...	...	...	...	...
INDIA																													
INDIA	† 122,805	...	3	1	973	59	5	15	24	73	199	178	35	1	9	20	147	481	3,697	110	72	138	161	10	4	
		1,998	35	55	26	44,016	1,752	592	163	517	1,561	3,099	5,309	1,997	8	121	391	1,924	4,210	101,782	3,722	861	639	1,178	1,532	360	44	...	
		3	19	4	15	120	154	4	24	103	334	59	47	11	7	8	8	17	8	1,311	2	...	5	1	...	...	...
		...	...	...	3	2	...	5	1	9	2	...	...	...	...	...	...	...	126	...	...	...	...	...	...	...	...
INDIA	‡ 119,505	...	3	1	944	59	5	15	24	72	196	173	35	1	9	20	134	467	3,598	107	72	129	159	10	4	...	...
		1,998	35	55	26	42,523	1,738	573	157	510	1,546	3,035	5,064	1,979	8	121	391	1,854	4,033	98,742	3,565	827	620	1,113	1,473	360	41	...	
		3	19	4	15	112	150	4	21	103	330	56	45	11	7	8	8	16	8	1,275	2	...	5	1	...	...	
		...	...	...	3	2	...	5	1	9	2	...	...	...	...	...	...	...	125	...	...	...	...	...	...	...	...
BENGAL	26,200	197	22	9	11	6,859	253	65	21	152	240	524	813	152	4	23	49	350	791	17,470	719	199	127	304	261	114	12		
PUNJAB	46,050	677	5	19	12	19,567	928	143	38	243	800	2,129	2,475	534	2	22	144	815	948	43,476	1,404	162	106	313	367	107	16		
MADRAS	18,622	4	7	1	...	4,883	118	262	55	31	94	420	504	54	2	28	3	341	871	13,010	529	177	140	228	326	15	2		
BOMBAY	22,428	72	...	14	3	9,679	328	100	32	78	343	710	916	299	2	40	185	313	1,199	20,932	785	230	217	303	449	313	6		
HYDERABAD CON- TINGENT.	5,826	68	...	1	1	34	31	2	3	16	90	10	18	5	3	3	6	7	1	290	120	1	...	...	...	...	...
CHINA EXPEDITION- ARY FORCE	\$ 8,166	9	...	4	3	533	96	7	12	85	209	641	225	57	3	7	42	133	350	3,719	291	44	21	135	150	5	1		
CHINA GARRISON	\$ 2,254	...	...	1	169	30	1	2	26	19	128	154	67	4	...	1	15	131	1,172	73	28	20	22	61	2	3	
OGADEN PUNITIVE FORCE	\$ 236	...	...	410	7	...	...	...	...	1	2	8	27	14	...	3	9	25	640	15	5	5	12	3	1	1	

* Remaining + admitted = total treated. Remaining + admitted + died out of hospital = total cases.
 † Excluding troops in China and in British East Africa, and including troops in Extra India not in the Indian Command.
 ‡ Excluding also troops in Extra India not in the Indian Command.
 § As far as returns have been received.

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.	1,503	1,326	1,462	1,380	1,378	1,367	1,414	1,431	1,436	1,464	1,611	1,451	17,473.
	55	41	33	27	30	31	38	46	46	27	31	40	445
II.—BURMA INLAND	4,310	4,479	3,747	3,790	4,017	3,556	3,677	4,036	4,075	4,221	4,403	4,607	40,008
	185	150	107	168	106	102	139	191	161	160	143	153	1,705
III.—ASSAM	1,671	1,624	1,568	1,405	1,354	1,379	1,415	1,398	1,440	1,499	1,424	1,484	17,661
	64	56	48	41	32	46	58	115	118	94	81	67	820
IV.—BENGAL AND ORISSA.	2,216	2,358	2,367	1,940	1,895	1,947	2,042	2,085	2,533	2,747	2,801	2,308	27,439
	112	106	101	98	76	73	81	89	83	105	122	100	1,155
V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	4,447	4,854	5,123	4,676	4,642	5,260	6,017	6,418	6,167	6,568	6,726	5,876	66,774
	139	124	122	134	130	120	139	163	158	160	156	139	1,724
VI.—UPPER SUB-HIMALAYA	15,417	14,643	15,478	14,688	14,374	14,478	14,810	15,474	14,967	15,675	17,673	15,479	183,156
	499	318	293	313	380	340	316	356	396	448	511	434	4,514
VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	18,558	18,482	16,900	16,168	15,853	15,736	16,267	17,012	16,442	17,341	17,681	16,967	203,407
	585	477	436	410	431	451	421	530	605	756	774	617	6,493
VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	11,261	11,634	11,129	10,033	9,769	9,812	10,209	10,820	10,676	11,859	13,292	11,435	131,929
	475	404	359	342	331	327	307	375	424	470	545	459	4,818
IX.—DECCAN	14,060	14,323	14,836	13,157	12,854	12,900	14,588	14,929	14,954	16,212	15,696	15,049	173,618
	390	398	385	356	322	303	331	370	376	468	467	411	4,677
X.—WESTERN COAST	2,213	2,181	2,137	1,726	1,725	1,730	1,861	1,865	1,851	2,116	2,227	2,618	24,250
	61	66	68	53	56	53	69	59	70	81	79	84	799
XI.—SOUTHERN INDIA	6,683	6,672	6,620	6,237	6,337	6,406	6,638	6,439	6,570	6,422	5,816	6,325	77,231
	239	236	235	194	177	177	193	214	198	178	221	181	2,443
XII.—HILL STATIONS	19,779	20,537	21,390	22,431	21,194	20,974	21,281	21,061	21,537	21,495	20,403	19,151	251,233
	683	637	659	625	599	676	731	770	881	827	774	824	8,686
INDIA *	125,796	127,470	123,682	115,380	111,695	112,449	116,692	119,854	120,533	127,819	135,450	136,848	1,473,668
	3,793	3,514	3,319	3,169	3,114	3,112	3,321	3,948	4,140	4,415	4,576	4,244	44,665
INDIA †	122,097	124,413	120,654	112,455	108,804	109,529	113,271	116,915	117,245	124,016	131,406	132,256	1,439,061
	3,697	3,419	3,167	2,945	2,886	2,941	3,138	3,723	3,973	4,296	4,472	4,127	42,784
BENGAL	27,267	28,025	25,950	23,416	22,319	23,265	25,057	25,701	26,169	27,272	30,031	29,034	314,466
	729	674	623	651	650	608	633	776	783	829	886	781	8,693
PUNJAB	46,454	47,935	47,011	44,792	43,514	43,291	43,910	45,198	44,636	47,458	50,876	47,523	542,598
	1,331	1,270	1,158	1,067	1,087	1,180	1,229	1,479	1,625	1,859	1,885	1,688	16,849
MADEAS	19,224	18,828	18,442	17,562	17,218	16,922	18,238	18,691	18,861	19,566	19,769	20,139	223,460
	640	576	546	462	437	420	498	604	551	523	564	531	6,344
BOMBAY	22,918	23,306	22,821	21,317	20,558	20,723	21,177	21,822	22,095	23,494	24,412	24,579	269,132
	881	760	728	668	631	655	664	762	897	906	972	864	9,415
HYDERABAD CONTINGENT	6,234	6,319	6,430	5,368	5,195	5,157	5,308	5,503	5,484	6,316	6,318	6,282	69,074
	116	129	115	97	81	88	83	109	117	177	165	150	1,437

* Including troops in Extra India not in the Indian Command.

† Excluding troops in Extra India not in the Indian Command.

TABLE XXX.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.
SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table XXVIII.

BENGAL COMMAND.

Alipore.—The station is low-lying, damp, and imperfectly drained. The drains, some of which are most insanitary, are *kutchas*, and have a very small fall towards the outlet. There is a large number of tanks with weeds and grass growing round the edges: these are breeding places for mosquitoes, which abound. They have not yet been dealt with by tar or other destructives. The men's barracks have earthen floors, which always become damp in wet weather, and are, no doubt, a cause of ill health. The regimental, as well as the hospital latrine, is constructed on a defective plan. The former (particularly the floor) remains saturated with urine, etc., and both emit an offensive smell, and are very insanitary.

The General Officer Commanding the District.—The drainage system depends on that of the municipality, which appears inadequate in heavy rains. The existing drains, and also the floors of the men's barracks, should be made *pucca* as funds are available. The movable latrine system should be introduced.

Ballygunge.—No sanitary report.

Barrackpore.—See Table V.

Dinapore.—The water tank outside the hospital should be connected with a tap inside for the native infantry hospital mortuary. The native infantry hospital kitchen should be rebuilt.

Benares.—No particular defects reported.

Fyzabad.—The pumps to the wells, from which drinking water is obtained, are over the taps. It is recommended that they should be placed at the sides (as funds permit) to prevent contamination.

Cawnpore.—A proposal to open out the bazaars by running wide roads through them has not yet been sanctioned. The new drainage work for the city, sanctioned and begun, is to pass through the cantonments, and in close proximity to the wells in the Royal Artillery lines. The necessity for strengthening works at these particular spots, or the changing of alignment has been pointed out. Better work on road-making and more watering carts are required.

Delhi.—See Table V.

Agra.—It has been suggested that land should be acquired some distance outside the cantonment for the disposal of the nightsoil and rubbish both for the cantonment and the municipality, the locality being connected with both by a tramway provided with double-tipping waggons. This is an excellent idea, if the cost were not prohibitive. Orders were issued regarding the destruction of mosquitoes, and doing away with their breeding-grounds within the cantonment.

Shillong.—The construction of seven sheds for storing dry earth and of four urinals, as also the addition of verandahs to the single men's barracks, and the reconstruction of the married lines, still remain to be done. These have all been approved, and an allotment of funds is awaited.

PUNJAB COMMAND.

Meean Meer.—See Table V.

Edwardesabad.—No sanitary report.

Dera Ismail Khan.—The drain from the city gate running past the cavalry and artillery lines should be cleaned.

The General Officer Commanding the District.—The drain was cleaned out twice, and the fall improved, as much as possible, by the executive engineer, and this will be done whenever required.

Tank, Draband, Nili Kach, Mangrota, Jandola,

Kajuri Kach, Kila Drosh, Miran Shah, Nagaudioba, } No sanitary report.

Datta Khel, Sawekai, Wana.

MADRAS COMMAND.

Keng Tung.—Sanitary report not received.

Fort Stedman.—The sanitation of the area abutting on the military portion of the station is defective. This matter is again being brought to the notice of the civil authorities by the General Officer Commanding the District. The land under wet cultivation ("paddy") to the north of the Sappers and Miners' lines is much too close to them, as well as to the *dhobies'* lines, and is a source of malarial infection. This land might be acquired, or compensation paid for having it put under dry cultivation.

Bhamo.—The following defects have been brought forward:—There is a marsh by the side of the parade ground on the south-east and south-west sides of the fort. There is overcrowding in barracks Nos. A, B, C, and D. Water remains stagnant and saturates the drain (outside the fort) that runs from the mounted infantry well towards the *dhobie* lines. Provision should be made for ventilation for each seat in all the latrines, situated in the lines, as well as in the hospital. A large tract of jungle should be cleaned and stumped in the vicinity of the married lines and infectious hut. The cost of thorough drainage would be prohibitive. The marsh and parade ground are under the level of the river Irrawaddy at high stream. There are barracks (British infantry) *unoccupied*, some of which were temporarily occupied by the native troops, but given up owing to the distance from these to the men's cook-house and latrines. There is no possible site for new barracks inside the fort. The drain in question may be made *pucca*, if possible, or be kept dry: the fall is so slight that, unless the drain is made *pucca*, the water will not drain off.

A circular opening may be cut at the back of each seat, or the latrine wall may be raised one foot from the seat-level. The matter of jungle clearing will be specially reported on later.

The Officer Commanding, Bhamo, states that the executive engineer will be addressed on the subject of any latrines remaining unventilated.

Bellary.—No defects reported.

Vizianagram.—The married quarters are unfit for human habitation, the rooms being very small, with no light, and having deficient ventilation. The hospital latrines are of an antiquated type: they should be replaced by new ones of light iron.

The question of the destruction and removal of the lines has been submitted to the Deputy Adjutant-General, Madras Command, for orders. The Officer Commanding, Vizianagram, reports that the Executive Engineer, Vizagapatam Division, has been requested, early in 1902, to prepare an estimate for the construction of new hospital latrines.

TABLE XXX—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS.
SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table XXVIII.

BOMBAY COMMAND.

Sibi.—The water-supply is impure and insufficient. A scheme of water-supply by distribution pipes has been submitted to the Chief Engineer, Bombay Command.

The Lieutenant-General Commanding the Forces.—Good progress is being made with the distribution scheme, and the work is expected to be completed this year. This scheme consists in the water being carried in trucks from the river Nari, and being subsequently pumped into a raised reservoir near the hospital for distribution.

Rajkot.—The health of the troops was fair. There was no cause of disease or insanitary condition; but the number of iron latrines at present existing for the use of the native infantry is not sufficient.

The General Officer Commanding the District.—As the withdrawal of the infantry detachment is under consideration, it seems hardly worth while to incur expenditure for the erection of more latrines till the matter is decided.

Deesa.—The latrines at present in use by the native infantry are not of good pattern, and consequently allow fouling of the ground. As far as possible, movable latrines should be introduced. The situation of the latrines in the 2nd Bombay Lancers lines is a very long way off from the barrack; and the huts are old, small, and badly ventilated, and have, it is understood, been condemned by all inspecting officers. The latrines should be of the movable kind, there being plenty of room. The present ones, though kept in excellent order, are most insanitary, owing to structural defects. But it has been decided by the Lieutenant-General Commanding the Forces that the question of new lines must stand over till the Poona cavalry lines are completed.

Sadra.—No sanitary report.

Ahmedabad.—No particular defects reported.

Barwani.—No sanitary report.

Sirdarpore.—No particular defects reported.

Kherwara.—There is no insanitary condition causing sickness. The filling up of small pools, and the draining (when practicable) of larger ones should be done locally.

Deoil.—No particular defects reported.

Jaipur.—No sanitary report.

Sitabaldi.—No particular defects reported.

Bombay.—The water-supply to the native troops at Santa Cruz is reported by the health-officer as unsuitable for drinking purposes. The water is now boiled before use.

Waziribagh.—No sanitary reports.

Mir Ali Khel.—The ventilation in the native officers' quarters and in the hospital is imperfect. The drain in the fort has an imperfect gradient. The necessary improvements are being carried out or have been estimated for.

Fort Sandeman.—The accommodation for the cavalry and the followers is insufficient. The construction of lines for 2½ squadrons is recommended.

Sharigh.—No sanitary report.

Quetta.—The latrines at present in use are built of mud, and have earthen floors: these should be converted into iron ones. The water-supply is insufficient and intermittent. The following remedies are proposed:—An additional 5" main; improvement of the head-works at the off-take well; protection of the gathering ground. The proposal for the construction of bathing places, which are at present insufficient, is being carried out.

Peshin.—The water-supply is impure, being obtained from a surface stream running through the fields. The roof of the barracks is in bad repair, and the floors are of mud.

The General Officer Commanding the District.—It is doubtful whether this station will be held much longer.

Bushire.—No sanitary report.

Aden.—Malaria prevails, caused by mosquitoes, which breed in the stagnant water left about the cantonment. Printed instructions to prevent the breeding of mosquitoes at the station have been circulated by Colonel J. S. Wilkins, I.M.S. The proposal for a better system of sewage disposal will be considered when the question of a light railway to Sheikh Othman is decided. In the meantime the entertainment of a European overseer to supervise the sanitation of the cantonment is recommended. The question of increasing cubic space for the families of the native troops has been reported on during the year to the Principal Medical Officer, Bombay Command; but no answer has been received. Extra antiscorbutic vegetables, such as onions, potatoes, etc., should be given free to the troops. A recommendation to this effect is being submitted to the Lieutenant-General, Bombay Command.

HYDERABAD CONTINGENT.

No stations unhealthy.

TABLE XXXI.

INFLUENZA by months, stations, groups, and commands.

TABLE XXXII.

CHOLERA by months, stations, groups, and commands.

STATIONS * AND GROUPS.	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.	
Rangoon	1	2	3	
GROUP I.—BURMA COAST AND BAY ISLANDS	1	2	3	
Dibrugarh	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
GROUP III.—ASSAM	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Alipore	1	...	...	...	...	...	...	...	1		
Cuttack	1	...	1		
GROUP IV.—BENGAL AND ORISSA	1	...	...	...	...	...	1	...	2		
B.		
Dinapore	1	...	...	1		
Benares	58	8	...	...	...	...	...	...	...	66	...	...	...	...	...	...	...	...	...	...	...	...
Fyzabad	11	1	...	12		
Lucknow	2	1	...	3		
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	58	8	...	...	...	...	...	...	...	66	...	...	...	...	...	...	...	...	14	2	...	16		
A.		
Roorkee	5	5	1	...	1	
Dehra-Dun	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Umballa	3	...	...	3		
B.		
Rawalpindi	7	8	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYA	7	8	8	23	1	...	4	
A.		
Mardan	1	...	...	1		
Kohat	4	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Edwardesabad	9	1	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan	5	7	2	1	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	4	14	8	2	1	...	...	...	...	...	...	29	...	...	...	...	...	...	...	...	1	...	...	1	
B.		
Deoli	10	2	...	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Agar	7	16	...	...	...	...	...	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...
Shore	2	50	...	...	...	...	...	...	...	...	52	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	19	68	...	...	...	...	...	1	...	...	80	...	...	...	...	...	...	...	...	...	...	...	...
B.		
Ellichpur	23	4	1	...	...	...	...	...	...	28	...	...	...	...	...	...	...	...	...	...	...	...
Aurangabad	11	4	...	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...
Bolsrum	1	13	8	...	...	...	...	...	...	22	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	11	28	17	9	...	...	...	...	...	...	68	...	...	...	...	...	...	...	...	...	...	...	...
A.		
Pellary	1	1	1	3	
Bangalore		
B.	1	...	...	1		
St. Thomas' Mount Madras	3	...	...	3		
GROUP XI.—SOUTHERN INDIA	1	1	1	4	...	7

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios see Table XXVIII.

STATIONS, GROUPS, AND COMMANDS.	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.
Kohima	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong	22	10	10	1	...	...	...	...	...	...	...	43	...	...	...	...	...	...	...	...	...	...	...	...	...
Lansdowne	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2
Simla	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala	59	24	...	...	...	...	...	...	...	...	...	83	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakloh	106	15	1	...	...	...	...	...	...	...	...	122	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Gilgit	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Sandeman	15	8	...	...	...	...	...	...	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	3	2	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Peshin	21	7	...	...	...	...	...	...	...	...	...	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Mount Abu	3	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	...	130	123	36	3	...	...	...	1	...	...	...	315	...	...	...	...	...	1	...	...	1	...	...	...	2
Marching, Bengal	2	...	...	...	...	...	...	...	...	...	...	2
Punjab	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Malakond Force	200	104	32	6	...	...	...	...	...	...	...	402	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat-Kurram Force	20	...	...	...	...	...	...	...	...	...	20	...	...	...	1	...	...	...	...	...	...	...	...	1
EXTRA INDIA.
Mauritius	160	16	...	...	...	...	176	...	...	...	...	...	...	...	...	...	...	...	...	...
Trincomalee	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA	...	394	208	258	46	11	160	17	...	2	3	6	1,195	...	2	...	1	2	4	2	19	2	3	...	...	35
BENGAL	...	24	19	134	18	1	...	...	1	...	...	...	197	...	2	...	1	...	1	14	2	3	...	...	...	23
PUNJAB	...	370	219	74	11	1	...	1	...	1	...	...	677	...	...	...	1	3	...	1	...	...	...	...	...	5
MADRAS	2	2	...	4	...	...	...	1	1	1	4	...	...	...	...	...	7
BOMBAY	49	22	...	...	...	...	...	...	...	1	72	...	...	...	...	...	...	...	...	...	...	...	...	...
HYDRABAD CONTINGENT	11	28	17	9	...	...	...	...	...	3	68	...	...	...	...	...	...	...	...	...	...	...	...	...

NATIVE TROOPS, 1901.

TABLE XXXIII.

ENTERIC FEVER by months, stations, groups, and commands.

TABLE XXXIV.

SIMPLE CONTINUED FEVER by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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.
Port Blair
Rangoon
GROUP I.—BURMA COAST AND BAY ISLANDS
Thayetmyo	7	82	16
Keng Tung	17	6	1	...	2	...	
GROUP II.—BURMA INLAND	7	82	16	...	17	6	1	...	2	...	
Manipur	2	1	1	...	1	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Silchar	1	1	...	...	...	...	...	...	...	...	...	...	...	...
GROUP III.—ASSAM	2	1	1	...	1	...	...	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...
B	
Dinapore	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Fyzabad	1	...		
Cawnpore	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	1	...	...	1	...	3	...	...	...	...	...	...	...	...	...	1	...		
A	
Meerut	1	...	...	...	...
B	
Ferozepore	1	...	1	...	1	...	3	...	...	...	...	...	...	2	1	...	...	...	...
Jhelum	1	1	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYA	1	...	1	...	1	...	4	...	...	...	...	...	2	1	1	...	...	...	...
A	2	1	1	4	...	...	...	...
Kohat	
Edwardesabad	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan	1	...	...	...	...	...	...	...	...	...
Drarand	2	...	...	...	...	...	...	...	...	...
Mooltan	1	...	1	...	...	...	...	...	...	...	...	...	2	...		
B	2	...	...	...	...	...
Sibi	2	...	...	...	...	...	...
C	1	...	1	...	
Hyderabad	1	...	1	...	
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	1	...	...	...	...	1	...	2	...	...	3	2	3	1	5	2	1	...	...
A	29	...	7	...	...	...
Deesa	29	...	7	...	...	...
B	1	2	1	1	2	1	...	...	...	...
Kherwara	4	18	28	8	1	...	...	...	3	15	
Ajmer	
Agra	
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	5	20	29	38	3	1	4	...	3	15	

* Stations where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

STATIONS, GROUPS, AND COMMANDS.	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																										
Tabaldi	1	...	...	...	...	...	1	...	...	2
B																										
Polurum	3	3
Gunderabad	5	1	4	16	8	...	10	4	7	14	4	2	73
Elgam	4	...	1	...	...	11	11
Sona	1	1	1	2	1	...	...	...	3	...	9
Trkece	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	1	1	3	3	7	18	11	2	15	4	8	15	7	5	98	
Bombay	4	5	2	1	2	...	14	
Panalore	5	...	4	7	
Madras	1	...	...	...	...	...	...	...	...	1	
GROUP X.—WESTERN COAST	1	...	...	...	4	5	2	1	5	4	22
A																										
Bangalore	3	1	...	...	...	...	...	...	...	...	4
B																										
Mylavaram	1	...	...	...	...	...	...	...	...	...	1
C																										
Madras	4	6	1	1	3	2	1	1	...	...	...	...	19
GROUP XI.—SOUTHERN INDIA	4	6	5	2	3	2	1	1	...	...	...	...	24
Chittoor	2	...	...	...	...	...	...	2
Madras	1	...	...	...	...	...	...	...	...	1
Madras	2	...	...	...	...	...	...	...	2	...	...	...	1	...	1	...	...	...	...	...	...	2
Madras	1	...	1	...	...	...	1	1	1	3
Madras	1	1	2	1	5	...	...	...	...	...	...	...	...	...	1	1	1	3	
Madras	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	1	...	...	...	...	...	...	...	...	...	1	1	...	...	3	1	3	1	...	...	...	...	...	9	
Madras	1	...	...	...	...	...	...	...	...	...	...	1
Madras	1	2	...	...	...	1	2	1	3	1	...	11
GROUP XII.—HILL STATIONS	...	1	...	...	2	...	...	2	1	2	1	9	1	2	2	5	1	6	2	2	1	4	2	1	29	
Madras	1	...	...	...	...	...	...	...	...	...	...	...	1
Madras	1	...	1	1	4	1	114	...	...	...	...	...	122
Madras	1	...	...	...	1
Madras	1	1	1	...	...	...	...	...	...	...	...	...	...	...	1	
EXTRA INDIA.																										
Madras	1	...	...	...	...	...	...	...	...	1
Madras	1	1	...	3	5
Madras	2	1	...	1	1	...	...	3	5	1	...	...	14
INDIA	...	1	2	1	4	1	2	1	2	4	3	5	26	13	12	28	132	68	56	158	29	25	24	19	28	592
BENGAL	2	1	3	...	2	...	...	2	...	1	11	1	...	4	19	28	10	1	1	...	1	...	...	65
PUNJAB	1	1	...	1	2	2	3	2	12	1	...	1	5	6	5	116	4	2	1	1	1	143
MADRAS	7	10	21	100	29	4	33	14	11	17	10	6	262
BOMBAY	...	1	...	...	...	...	...	...	...	...	...	2	3	2	1	2	7	4	37	8	7	6	3	8	106	
HYDRABAD CONTINGENT	3	3

TABLE XXXV.

INTERMITTENT FEVER by months, stations, groups, and commands.

TABLE XXXVI.

REMITTENT FEVER by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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	5	4	4	5	5	3	3	..	1	2	1	..	31	..	2	..	..	..	..	..	..	..	..	..	..	..
Rangoon	12	12	16	7	1	4	12	10	5	6	5	18	110	1	2	1	..	..	1	2	..	1	2	1	..	..
GROUP I.—BURMA COAST AND BAY ISLANDS	17	16	20	12	4	7	15	10	6	10	6	18	141	1	4	1	..	..	1	2	..	1	2	1	..	..
Thayetmyo	6	8	13	1	4	1	8	12	2	12	5	5	77	..	2	..	..	..	..	..	..	..	..	1	..	..
Keng Tung	32	14	18	14	16	89	136	151	102	101	60	70	805	..	..	..	..	..	3	..	..	..	..	1	..	..
Fort Stedman	23	11	8	13	11	14	7	18	10	20	17	20	172	..	..	..	..	..	..	..	1	..	..	..	..	..
Meiktila	1	..	1	2	1	..	1	6	1	2	..	2	17	..	..	..	..	..	..	..	..	..	..	..	..	..
Fort Dufferin	152	55	28	20	14	21	27	18	45	77	118	67	642	..	2	4	2	2	..	..	..	..	..	..	..	..
Bhamo	42	13	7	26	44	102	272	233	137	130	54	59	1,119	..	..	1	1	1	2	..	..	..	3	1	..	..
Myitkyina	15	6	7	29	29	..	..	..	..	..	..	..	86	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP II.—BURMA INLAND	271	107	82	105	119	227	451	438	297	342	254	223	2,916	..	4	5	3	3	..	5	1	..	4	2	..	..
Manipur	22	9	9	18	12	39	58	40	91	72	29	39	438	..	..	..	1	..	1	3	3	..	2	3	2	..
Sadiya . . . . .	..	2	2	5	1	7	7	15	2	6	..	4	51	..	..	..	..	..	..	..	..	..	..	..	..	..
Dibrugarh	8	8	8	4	11	11	21	37	35	70	33	25	271	..	..	..	..	..	..	1	..	..	1	1	..	..
Silchar	10	1	13	5	5	6	3	12	7	19	3	7	91	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP III.—ASSAM	40	20	32	32	29	63	89	104	135	167	65	75	851	..	..	..	1	..	3	4	3	..	3	4	2	..
Fort William	48	21	13	29	10	8	17	26	15	68	79	61	397	..	1	..	1	..	..	..	..	..	..	2	6	..
Alipore	54	51	29	29	17	13	17	30	27	35	28	31	361	3	3	3	6	..	2	4	1	..	4	6	2	..	
Ballygange . . . . .	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Dem-Dum	1	..	..	..	1	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Barrackpore	2	6	4	5	2	2	1	3	19	19	8	..	71	..	..	..	..	..	..	..	..	..	..	..	..	..
Buxa	7	9	6	7	6	10	7	13	10	8	4	3	99	1	..	..	1	..	1	..	..	..	..	3	1	..
Cuttack . . . . .	..	3	..	3	..	..	..	..	..	..	..	4	16	..	2	..	..	..	..	..	..	..	..	..	..	..
GROUP IV.—BENGAL AND ORISSA	112	92	52	73	36	34	42	72	71	130	123	103	940	6	6	3	8	..	3	4	1	..	7	9	8	..	
A																											
Doranda	3	1	7	11	13	7	9	14	19	7	12	6	109	..	..	..	..	..	..	..	..	3	7	1	..	..
B																											
Dinapore	3	1	1	8	7	6	7	5	7	2	5	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Benares	15	15	11	10	25	10	12	13	18	26	11	13	179	..	..	..	..	..	..	..	..	..	..	..	..	1
Allahabad	6	6	14	37	24	16	17	13	13	57	39	9	271	..	..	..	..	..	..	..	..	..	..	..	..	..
Fyzabad	2	8	8	15	4	9	11	14	9	31	12	11	134	..	..	..	..	..	..	..	..	1	1	1	..	..
Lucknow	2	5	11	8	10	16	10	22	15	25	9	150	..	..	..	..	..	..	1	..	1	..	1	1	..	..
Cawnpore	20	3	14	18	15	16	15	21	16	15	6	7	164	..	..	..	..	..	..	4	3	2	..	..	..	..
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	51	39	66	107	98	80	85	90	102	158	128	60	1,064	..	..	..	..	..	1	4	8	11	2	2	..	..
A																											
Bareilly	3	3	18	61	21	15	15	42	27	33	17	26	281	..	..	..	..	1	..	..	2	..	..	1	..	..
Roorkee	1	1	..	2	4	2	1	3	4	11	12	3	44	..	..	..	..	..	..	..	..	..	..	..	..	..
Dehra Dun	9	4	9	12	19	4	7	12	6	46	20	13	161	1	..	..	1	4	2	1	2	1	3	2	..	..
Meerut	4	1	2	5	9	4	5	20	57	49	26	11	193	..	..	..	..	2	..	1	5	7	2	1	1	..
Delhi	2	5	5	53	62	31	13	17	33	20	9	15	265	..	..	..	..	1	1	..	..	..	..	..	..	..
Umballa	8	9	6	19	25	105	43	3	25	51	11	8	313	..	..	..	1	2	2	1	7	3	..	1	7	..
B																											
Ludhiana	2	..	3	3	4	3	3	2	3	4	1	1	29	..	..	..	1	2	..	..	1	1	..	..	..	..
Jullundur . . . . .	..	3	16	3	4	10	19	31	35	44	12	9	186	..	..	..	1	2	4	..	1	1	..	..	1	..
Ferozepore	78	22	40	51	56	26	22	71	51	158	65	53	691	..	1	..	..	..	1	..	..	..	..	2	2	..
Meeran Meer	65	22	14	46	71	42	31	33	39	178	67	30	658	6	..	2	1	..	1	2	1	3	7	4	3	..	
Amritsar	2	6	2	4	2	..	2	7	7	5	6	8	51	..	..	..	..	..	..	..	..	..	..	..	1	..
Sialkot	16	10	12	41	25	19	17	33	39	62	35	23	332	..	2	..	4	2	3	1	1	1	2	4	3	..	
Jhelum	6	2	3	17	23	8	16	15	25	72	34	21	242	1	1	2	3	3	2	3	2	8	11	..	..	..
Rawalpindi	12	7	9	12	11	12	18	12	11	57	66	28	255	..	..	3	..	2	2	1	3	..	..	1	1	..
Attock	3	..	..	1	1	..	1	..	..	2	..	1	9	..	..	..	..	..	..	..	..	1	1	..	..	..
GROUP VI.—UPPER SUB-HIMALAYA	211	95	139	330	337	281	273	301	382	792	379	230	3,710	8	4	7	14	21	18	9	26	19	25	25	17	..	

* Stations where neither Intermittent Fever nor Remittent Fever occurred are not shown in these tables. For the annual ratios see Table XXVIII.

STATIONS AND GROUPS.	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																											
Mardan	9	8	3	6	18	7	5	5	2	3	2	1	69	...	3	1	...	...	...	5	...	2	2	...	...	13
Nowsheera	5	4	3	10	36	36	33	13	12	63	24	16	293	...	...	...	...	2	3	4	...	1	1	1	1	13
Peshawar	39	22	20	103	70	45	31	59	83	251	149	74	990	...	...	1	1	...	...	1	1	1	1	1	1	8
Fort Jamrud	...	1	...	1	6	3	10	3	7	...	...	...	39	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat	48	29	34	60	63	58	66	90	85	185	130	109	957	3	...	1	2	13	20	21	5	11	17	9	4	106	
Bahadur Khel	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	1
Fhal	...	...	...	1	2	2	1	6	5	37	39	...	93	...	...	...	...	...	...	...	...	...	...	...	...	...
Lattammar	...	...	...	...	...	...	...	...	3	3	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Edwardesabad	31	21	39	26	26	22	19	20	25	90	112	82	513	1	2	5	4	7	5	7	1	2	7	5	3	49	
Jani Khel	3	1	2	1	1	16	21	...	...	26	16	8	89	...	...	...	...	...	...	...	...	...	...	...	...	...
Khargi	...	...	1	5	12	20	5	2	1	6	8	5	65	...	1	...	...	...	...	...	...	...	...	...	...	1
Dera Ismail Khan	81	57	87	68	90	162	125	128	215	373	145	34	1,565	...	...	...	...	7	1	3	6	...	...	3	2	22
Khairu Khel	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Mullazai	1	1	2	...	1	1	3	...	...	2	1	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Girni	...	...	2	2	7	...	4	3	3	14	...	...	35	...	...	...	...	...	...	...	...	...	...	...	...	...
Tank	1	...	1	4	9	4	3	1	...	1	3	9	36	1	...	...	...	1	...	...	...	...	...	...	...	2
Jatta	1	...	...	5	1	1	...	1	5	7	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
Draband	...	...	...	...	...	...	...	1	2	2	1	4	10	...	...	...	...	...	1	...	...	2	...	1	...	4
Draxand	...	1	1	12	11	...	1	1	9	4	1	4	41	...	...	...	...	...	...	...	...	...	1	...	...	1
Nili Kach	9	6	1	12	16	34	7	8	6	23	24	4	159	...	...	...	...	...	...	...	...	...	...	1	...	1
Murtaza	2	...	1	...	2	8	3	6	2	27	11	1	63	...	...	...	...	...	...	...	...	...	...	...	...	...
Manjhi	...	...	1	...	...	...	...	3	...	8	7	1	20	...	...	...	...	...	...	...	...	...	...	1	...	1
Fort Zam	20	9	10	9	8	3	4	...	5	8	10	4	90	...	...	1	1	...	...	...	...	...	...	...	...	2
Mangrota	...	...	1	...	1	...	...	...	2	3	4	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	54	11	10	39	28	18	18	7	15	29	20	10	259	...	...	1	2	...	...	...	...	...	...	...	3	3
Mooltan	26	4	5	12	12	8	11	12	31	112	86	58	377	...	1	...	1	1	...	1	...	...	...	3	...	7
Bikaner	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B																											
Idak	3	...	3	4	1	4	18	6	7	51	14	...	111	...	...	...	...	1	1	1	1	...	...	...	...	4
Kajuri	...	1	1	12	...	1	1	6	9	11	2	4	48	...	...	...	...	2	...	3	...	1	...	...	...	3
Sadgi	11	6	4	10	20	13	8	6	11	77	43	6	215	...	...	...	...	...	...	...	...	2	...	...	...	7
Jandola	12	2	3	2	4	3	3	1	3	42	33	30	138	...	1	1	1	1	...	...	...	3	...	2	...	9
Kajuri Kach	7	2	9	14	26	28	38	32	31	143	105	32	517	1	...	...	...	...	...	...	...	...	...	...	...	1
Sibi	12	3	...	3	...	...	...	11	2	4	20	8	63	...	...	...	...	2	...	...	...	...	...	...	...	2
C																											
Jacobabad	9	2	8	3	2	1	5	3	3	40	16	4	96	...	...	1	2	...	1	2	...	4	6	5	...	21
Hyderabad	4	2	4	7	5	3	6	11	10	26	30	10	118	...	...	...	...	...	1	...	...	...	...	...	...	1
Kurrachee	9	5	13	13	6	13	13	16	51	40	22	2	203	...	...	...	1	...	...	1	...	...	...	...	3	5
GROUP VII.—																											
NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	400	198	265	437	463	553	509	461	628	1,712	1,101	522	7,399	6	8	12	15	39	33	59	14	23	39	29	18	286	
A																											
Bhuj	1	...	...	2	3	3	6	9	10	13	99	125	271	...	...	...	...	...	...	...	...	...	...	1	...	1
Rajkot	36	9	3	45	53	29	35	36	18	12	10	11	296	1	...	...	...	...	...	...	...	...	...	...	...	...
Deesa	157	108	88	155	184	75	52	64	118	162	169	96	1,428	...	4	...	...	...	...	...	...	...	...	1	...	5
Sadra	1	2	...	...	...	...	...	...	...	...	...	...	3	...	1	2	...	...	...	...	...	...	...	...	...	3
Ahmedabad	40	29	11	22	22	17	45	23	29	40	33	34	345	1	2	1	4
Baroda	36	10	6	4	17	11	4	23	32	56	14	12	225	1	2	3
B																											
Barwani	...	...	...	...	...	1	...	...	2	6	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Alirajpore	...	...	...	1	...	...	...	1	6	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirdarpore	10	4	9	4	5	2	3	2	9	16	14	4	82	6	4	1	...	1	1	...	...	1	...	...	...	14
Jhabwa	...	...	...	1	...	...	1	2	3	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Kherwara	18	7	9	7	...	4	2	10	12	28	23	7	127	...	...	...	1	...	...	...	...	1	...	...	...	2
Kotra	5	2	1	2	...	1	1	4	2	6	3	4	31	...	...	...	1	...	...	...	...	...	...	4	...	5
Udaipur	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Todgarh	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Eripura	47	20	14	4	5	8	9	46	60	57	35	22	327	2	3	...	...	...	...	...	...	1	1	...	...	7
Neemuch	26	11	9	7	10	3	9	4	10	23	15	1	128	...	...	...	...	...	...	...	...	1	1	3	...	5
Deoli	16	8	4	13	16	1	5	3	10	11	3	106	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Beawar	...	1	...	...	...	...	1	1	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad	4	4	5	6	8	18	19	28	53	27	21	7	200	2	...	3	3	...	...	...	...	...	...	...	...	8
Ajmer	13	3	6	14	7	5	4	10	21	30	17	5	141	1	...	...	2	1	1	...	...	...	...	...	...	5
Sambhar	1	...	...	...	...	...	...	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Jipur	2	...	...	1	...	1	2	4	11	7	3	...	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra	15	79	39	16	18	9	9	27	33	58	69	63	436	3	2	...	1	3	2	...	3	...	...	...	...	14
Gwalior	1	...	...	...	...	...	...	...	4	3	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi	5	1	...	2	2	2	2	29	32	89	75	37	274	...	...	...	...	...	...	...	...	1	...	...	...	1
Nowgong	1	3	2	7	3	5	1	8	15	54	34	9	142	...	1	...	...	...	...	...	...	1	2	1	...	5
Goona	7	...	5	2	2	3	3	3	6	17	9	4	61	1	...	1	1	...	...	...	...	...	...	1	1	5
Agar	10	3	4	4	1	...	3	1	5	16	15	4	66	...	...	...	...	...	...	...	...	...	...	...	...	...
Sohore	28	3	17	48	101	44	80	49	28	64	36	6	504	...	2	2	1	2	7	
Indore	2	1	16	7	4	4	5	5	4	7	3	4	62	2	...	1	1	1	5	
Mhow	25	15	51	16	21	15	24	33	39	84	44	41	408														

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TABLE XXXV—concluded.

INTERMITTENT FEVER by months, stations, groups, and commands.

TABLE XXXVI—concluded.

REMITTENT FEVER by months, stations, groups, and commands.

STATIONS AND GROUPS.	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																										
Asirgarh	2	...	...	...	...	...	4	1	4	2	...	...	13	...	...	1	...	...	...	...	...	...	1	...	...	...
Saugor	35	3	...	19	5	...	1	...	6	16	10	4	101	...	...	1	2	1	3	1	...	1	2	1	...	1
Satna . . . . .	...	...	...	...	...	...	...	...	...	1	1	2	4	...	...	...	...	...	1	...	...	...	...	...	...
Jubbulpore	42	16	5	25	11	4	5	22	13	33	15	12	203	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambalpur	8	9	13	4	5	5	14	5	10	6	5	3	85	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur	2	6	4	...	4	5	11	3	2	2	5	4	55	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamptee	19	10	12	27	10	5	21	13	18	19	15	15	182	...	...	2	...	1	...	...	...	...	...	...	...	...
Sitabaldi . . . . .	...	...	...	8	6	7	1	5	5	6	3	7	48	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Ellichpur	3	2	1	8	6	9	31	8	5	37	51	26	187	...	...	...	...	1	...	...	...	...	...	1	...	...
Hingoli	10	7	14	38	23	33	13	43	110	142	51	32	516	...	...	...	...	...	1	...	...	...	...	2	1	...
Jalna	3	10	24	5	3	2	1	6	8	29	11	19	121	1	2	1	...	...	1	...	1	...	...	2	1	...
Aurangabad	10	22	15	10	13	11	16	18	18	35	25	30	232	...	1	1	...	...	...	2	...	...	...	...	...	...
Ahmednagar . . . . .	...	1	2	3	...	3	1	1	2	...	1	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Mominabad	3	2	6	17	7	2	3	11	...	22	18	12	103	2	...	...	...	...	1	...	1	1	2	...	...	...
Bolarum	9	14	21	22	11	9	12	8	12	59	19	19	215	2	...	...	1	...	...	...	1	1	3	...	...	...
Secunderabad	15	17	20	31	14	12	35	48	19	22	10	10	259	...	1	1	...	...	1	1	1	5	2	...	...	15
Raichur	1	...	...	...	3	1	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	1	...	...	...	...
Belgam	16	4	6	10	4	5	3	18	5	16	3	3	93	1	...	...	...	...	...	...	...	1	...	2	...	...
Satara . . . . .	...	...	4	...	...	...	...	...	4	1	1	10	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Poona	23	25	41	45	26	38	75	49	36	71	50	49	528	...	2	1	...	...	2	7	1	2	2	8	1	26
Kirkee	9	17	10	18	10	9	24	15	16	65	34	22	255	...	...	...	1	...	...	...	...	...	...	1	...	...
Sirur . . . . .	...	...	1	...	...	...	...	...	2	...	3	7	13	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	216	165	211	297	161	160	271	274	291	590	329	278	3,243	6	6	8	3	4	9	10	5	9	11	18	8	97
Bombay	39	32	61	42	39	36	31	48	46	73	22	33	572	1	...	1	4	2	2	12	5	4	2	1	5	35
Cannanore	5	6	6	1	2	1	3	2	1	4	2	8	43	...	...	...	...	...	2	...	...	4	2	1	5	3
Trivandrum . . . . .	...	...	...	...	...	...	...	...	2	...	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST	44	38	67	43	41	37	56	50	47	79	24	43	569	1	...	1	4	2	2	14	5	4	2	1	5	41
A																										
Bellary	14	34	38	20	23	16	46	48	47	53	24	12	375	...	...	...	...	...	...	...	...	...	...	...	...	2
Bangalore	24	27	21	17	42	23	39	28	43	80	38	24	426	...	...	2	2	...	...	1	1	1	3	2	1	13
B																										
Trichinopoly	9	...	2	1	2	1	3	1	2	4	1	12	38	...	...	...	...	...	...	...	...	...	...	...	2	2
Pallavaram . . . . .	...	...	...	...	...	...	2	2	1	...	3	4	12	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Thomas' Mount	9	7	3	13	7	7	4	2	18	8	2	11	91	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras	17	5	1	5	10	8	12	11	4	5	9	25	112	...	1	...	2	1	1	...	...	...	...	...	...	5
C																										
Vizianagram	6	6	3	7	1	4	15	29	15	14	4	3	107	...	...	...	...	...	...	...	...	1	1	...	...	...
GROUP XI.—SOUTHERN INDIA	79	79	68	63	85	59	121	121	130	164	101	91	1,161	...	1	2	4	1	1	1	1	2	4	2	5	24
Maymyo	14	12	43	18	22	15	20	18	8	29	26	5	230	...	3	4	1	...	2	6	4	2	6	3	3	34
Kalanaga	1	...	...	2	...	1	1	...	...	2	1	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohima	13	3	5	27	15	30	32	47	47	39	30	36	324	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong	12	5	6	30	28	32	35	17	14	11	16	10	214	1	...	...	1	...	...	...	...	...	...	...	...	...
Gantak	1	1	...	6	2	3	1	1	1	4	7	7	34	...	...	...	1	...	...	...	...	...	...	...	...	...
Darjeling	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora . . . . .	...	3	5	5	7	5	10	11	7	9	5	7	74	...	...	1	1	2	4	3	9	7	3	1	2	35
Ranikhet . . . . .	...	...	...	...	...	1	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Naini Tal	1	2	3	4	2	1	2	...	1	1	3	1	21	...	...	...	...	...	...	...	...	...	...	...	...	...
Lansdowne	37	42	13	52	16	35	34	25	33	38	26	34	385	...	1	1	1	...	1	...	...	2	1	2	...	9
Simla . . . . .	...	...	...	2	1	1	1	...	3	1	1	...	9	...	...	...	...	...	...	...	...	...	...	...	...
Instegh . . . . .	...	...	15	2	6	3	3	3	5	6	...	...	40	...	...	1	1	1	...	...	...	...	...	...	...	3
Dharamsala	12	10	8	24	7	7	12	9	23	16	11	15	154	...	...	1	2	3	1	1	3	4	7	2	1	24
Bakloh	31	16	23	31	11	10	14	25	26	17	7	13	224	...	10	6	2	4	5	5	8	3	10	3	...	56
Murree . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Khyragully . . . . .	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Baragully . . . . .	...	...	...	...	1	...	3	2	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh . . . . .	...	...	...	...	2	1	1	2	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Gilgit	1	...	...	1	...	...	2	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Chitral . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Kila Dresh	39	10	7	14	16	181	35	10	18	8	1	...	9	...	...	...	...	...	...	...	...	...	...	...	...
Abbottabad	24	12	22	23	13	35	26	30	16	27	14	3	365	...	...	5	7	111	162	14	6	1	...	1	...	307
Cherat . . . . .	...	...	...	1	2	3	5	1	1	2	...	...	16	...	...	2	1	...	1	1	7	3	9	8	32	
Hangu	1	3	4	2	3	2	5	22	18	30	7	4	99	...	...	...	1	...	...	1	...	...	...	...	...	2

STATIONS, GROUPS, AND COMMANDS.	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.	
Miran Shah	15	13	22	9	22	17	57	44	105	102	30	16	542	...	...	2	...	1	...	...	...	1	...	...	4	
Boya	5	7	9	14	3	9	13	22	36	55	15	6	194	...	...	...	...	...	...	...	...	...	...	...	1	
Datta Khel	33	20	65	15	13	18	49	128	146	55	40	132	714	1	2	1	1	1	5	4	11	9	4	3	3	45	
Haidari Kach	11	3	...	...	...	...	...	...	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Sarwekai	10	5	10	9	16	8	68	17	93	98	66	32	426	...	1	...	...	...	1	...	...	3	3	...	7	
Spin	1	...	1	...	...	7	2	...	5	6	3	...	27	...	...	...	...	...	...	1	...	1	1	...	3	
Nagandioba	1	...	3	2	...	2	...	1	3	17	35	12	78	...	...	...	...	...	...	...	...	...	...	...	...
Wana	29	14	23	26	34	118	292	199	170	129	59	81	1,174	32	8	2	1	4	1	1	1	2	1	1	1	55	
Waziribagh . . . . .	...	...	5	1	7	9	15	26	11	4	2	3	83	...	...	...	...	...	...	...	...	...	...	...	...	...
Mir Ali Khel	2	...	4	2	1	...	3	2	6	20	13	12	65	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Sandeman	4	5	5	9	11	27	36	50	38	34	24	10	253	...	...	...	1	...	4	1	...	...	...	1	7	
Musa Khel	2	2	...	1	1	1	3	4	2	2	1	...	19	...	...	...	...	1	...	...	...	...	...	...	1	
Khan Mohamed Kot	4	2	1	1	5	6	11	12	12	18	16	15	103	...	...	...	...	...	...	1	...	...	1	...	2	
Murgha	2	...	3	...	1	2	6	12	8	7	1	1	41	...	...	...	...	...	...	...	...	...	...	...	...	...
Loralai . . . . .	...	8	4	11	25	12	22	18	56	34	12	14	218	...	...	2	2	7	3	7	5	...	...	2	28	
Gumbaz	1	...	...	2	...	10	2	3	9	4	3	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Sharigh . . . . .	...	...	...	...	8	6	15	28	24	31	...	...	112	...	...	...	...	1	1	...	1	1	...	...	4	
Quetta	53	40	105	63	51	47	83	132	223	231	56	50	1,134	...	...	1	...	...	2	1	...	1	2	...	1	8
Peshin	3	3	8	4	1	22	25	26	25	19	18	9	165	...	1	...	...	...	...	...	...	1	...	1	...	5
Shelabagh . . . . .	...	...	1	24	10	6	9	11	10	...	...	...	71	...	...	...	1	...	...	2	...	...	...	...	3	
Spinwana . . . . .	...	...	1	...	...	...	1	1	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Chaman	8	1	17	18	16	16	24	52	25	11	11	26	205	...	1	2	5	1	5	1	3	1	1	...	20		
Mount Abu	1	...	...	...	1	...	1	3	1	...	1	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund	1	...	...	...	...	...	1	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	367	242	426	469	376	712	978	997	1,227	1,221	600	577	8,192	34	27	23	27	35	145	195	64	47	46	26	25	694	
Marching, Bengal	23	27	13	6	...	...	9	...	3	...	23	103	207	2	...	...	...	...	4	...	2	1	5	4	18	
" Punjab	31	40	51	107	83	228	457	779	730	867	668	416	4,453	...	...	1	...	...	4	...	1	4	8	1	19	
" Madras	2	...	...	1	1	1	...	...	2	1	14	10	32	...	...	...	...	...	...	...	...	...	1	1	2	...
" Bombay	16	6	11	7	2	6	6	21	28	44	31	34	212	...	...	...	2	...	1	...	...	1	1	...	4	9
Hyderabad Contingent marching	3	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Mahsud Blockade . . . . .	...	...	...	...	...	...	...	...	...	...	...	152	152	...	...	...	...	...	...	...	...	...	...	...	8	8
Malakand Force	41	45	16	29	31	27	68	100	150	177	82	36	802	...	...	...	3	...	...	...	...	...	...	...	2	5
Kohat-Kurram Force	24	6	18	15	12	37	39	43	30	36	42	46	348	...	...	...	1	1	2	2	6	7	4	1	24	
EXTRA INDIA.																											
Chabbar	1	2	1	4	4	1	10	13	10	13	15	20	94	...	...	...	...	...	...	1	...	...	...	...	...	1
Jask	4	...	...	...	2	1	...	2	...	...	...	...	9	1	...	...	...	1	1	...	...	...	...	...	...	3
Muscat	8	4	5	5	...	...	...	...	...	...	...	2	24	...	1	...	4	...	...	...	...	...	...	...	...	5
Bushire	1	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Aden	51	33	14	11	21	6	11	28	14	77	22	22	310	2	...	2	2	3	4	...	...	2	1	...	16	
Khormaksar	4	2	1	2	2	1	...	...	3	11	3	5	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Sheikh Othman	2	3	...	4	4	1	...	...	4	...	1	19	...	...	...	...	...	...	...	...	1	...	...	...	1	
Perim . . . . .	...	...	...	2	...	...	1	...	...	5	1	...	9	...	...	...	...	...	1	...	...	...	...	...	...	1
Mauritius	58	53	280	401	172	162	73	29	20	19	18	18	1,243	2	...	...	...	2	...	...	1	...	...	...	5	
Colombo	4	2	6	4	3	2	5	3	2	...	1	12	44	2	1	1	...	2	...	...	...	...	...	...	6	
Trincomalee	1	1	...	1	...	...	2	...	2	3	...	1	11	...	...	...	...	...	...	...	1	...	...	1	2	
Kandy . . . . .	...	...	...	...	1	1	2	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Singapore	12	16	1	6	11	25	19	11	9	28	41	12	191	...	...	...	...	...	...	...	...	1	...	...	1	
INDIA	2,591	1,655	2,135	2,963	2,601	2,942	3,857	4,372	4,897	7,551	4,822	3,630	44,016	90	82	80	100	128	237	318	143	132	175	154	113	1,752	
BENGAL	455	356	292	600	491	410	484	601	1683	1,669	773	645	16,859	14	12	9	17	15	21	24	34	31	28	28	20	253	
PUNJAB	847	471	627	947	964	1,508	1,808	2,067	2,309	3,988	2,428	1,513	19,367	46	33	31	39	77	171	234	73	71	95	79	49	998	
MADRAS	420	241	251	241	251	327	651	655	408	500	416	372	4,883	2	13	13	8	4	5	17	7	10	19	9	11	118	
BOMBAY	746	457	597	663	642	500	737	912	1,161	1,527	970	797	9,679	15	20	24	33	29	36	42	26	17	29	30	21	328	
HYDERABAD CON- TINGENT	48	58	81	100	66	67	76	94	153	327	175	138	1,383	5	3	2	1	1	2	1	3	1	3	8	3	33	

NATIVE TROOPS, 1901.

TABLE XXXVII.

PNEUMONIA by months, stations, groups, and commands.

TABLE XXXVIII.

DYSENTERY by months, stations, groups, and commands.

STATIONS* AND GROUPS.	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.	
Fort Blair	4
Rangoon	1	1	2	11	4	5	4	5	3	16	18	3	4	3	13	...	88
GROUP I.—BURMA COAST AND BAY ISLANDS	1	1	2	11	4	5	4	5	4	16	19	3	4	4	13	...	92
Thayetmyo . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1	...	3	1	...	1	2	1	...	9
Keng Tung . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	...	1	1	...	...	8
Fort Stedman . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1	...	...	...	...	...	8
Meiktila . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	2
Fort Dufferin . . . . .	...	1	1	...	...	...	1	...	1	...	...	...	4	6	2	4	2	...	4	3	4	5	7	5	7	47
Bhamo . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	2	6	...	1	...	...	13	8	9	14	7	4	...	62
Myitkyina . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	2	...	3	1	...	...	...	...	...	...	...	...	6
GROUP II.—BURMA INLAND . . . . .	...	1	2	2	...	...	1	1	...	1	...	...	3	16	3	6	6	6	4	23	13	13	23	14	15	142
Manipur . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2	2	1	1	...	3	...	4	1	...	...	2	15	
Sadiya . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	...	3	2	...	...	1	1	1	1	13
Dibrugarh . . . . .	...	2	...	1	...	...	...	...	...	...	...	...	3	1	4	1	2	2	...	2	...	1	2	3	1	19
Silchar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	1	...	1	1	2	3	1	4	4	21
GROUP III.—ASSAM . . . . .	...	2	...	1	...	...	...	1	...	...	...	1	5	6	7	3	7	2	9	3	6	5	4	8	8	68
Fort William	2	1	...	...	1	1	...	...	...	...	...	...	5	7	...	1	1	1	1	2	4	7	4	5	8	41
Alipore . . . . .	...	...	...	...	...	...	...	...	1	2	...	...	3	4	1	2	4	2	1	3	2	...	3	2	6	30
Dum-Dum . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Barrackpore . . . . .	...	...	...	...	...	...	...	...	...	2	...	...	2	...	1	...	...	...	...	...	...	1	2	1	1	6
Buxa . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	2	4	1	1	...	...	...	...	...	13
Cuttack . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	3
GROUP IV.—BENGAL AND ORISSA	2	1	...	...	1	1	...	...	...	1	4	...	10	13	3	6	7	7	4	7	6	8	9	9	15	94
A.
Doranda . . . . .	...	1	1	1	...	...	...	...	...	1	1	...	5	1	...	1	5	2	1	1	2	2	4	...	...	19
B.
Dinapore . . . . .	...	1	2	...	...	...	...	...	...	...	...	...	3	...	1	1	1	...	...	3	...	2	...	1	...	9
Benares	1	1	...	1	...	...	...	...	...	...	...	...	3	...	...	1	...	...	...	2	2	3	4	...	2	14
Allahabad . . . . .	...	1	2	...	...	...	1	...	...	1	1	...	6	1	...	4	7	1	4	13	9	14	39	7	99	
Fyzabad . . . . .	...	1	1	2	...	...	...	...	...	1	2	...	8	...	1	...	2	2	...	4	12	3	4	3	1	32
Lucknow . . . . .	...	...	1	...	...	...	2	...	...	2	...	...	5	...	4	2	1	3	2	2	2	1	4	1	1	21
Cawnpore	7	...	1	4	...	...	2	...	...	1	3	...	18	...	...	1	4	2	5	5	8	8	2	6	41	
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	9	5	8	8	...	...	3	2	...	1	6	6	48	2	2	6	16	16	7	21	16	28	38	46	17	235
A.
Bareilly . . . . .	...	1	2	...	...	...	...	1	3	...	1	...	8	...	...	8	4	4	19	8	9	20	8	5	...	85
Roorkee . . . . .	...	...	...	...	...	...	...	1	1	...	1	...	3	...	1	...	1	...	...	1	3	3	2	1	...	12
Dehra Dun . . . . .	...	1	2	...	1	2	...	...	...	1	...	...	7	...	1	...	2	1	1	...	...	...	2	...	...	8
Meerut . . . . .	...	2	1	1	1	...	2	...	...	1	1	3	12	1	...	...	3	...	1	...	...	4	1	2	...	12
Delhi . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1	2	1	...	1	3	3	1	2	...	16
Umballa	3	2	1	2	3	1	1	...	...	1	1	1	16	1	2	2	...	3	5	4	1	3	8	9	3	41
B.
Ludhiana	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	2	...	1	...	5
Jullundur . . . . .	...	2	2	...	...	...	...	...	3	5	12	24	...	...	...	1	1	4	2	4	11	10	3	...	...	36
Ferozepore	11	6	6	5	1	1	3	...	4	4	8	47	4	3	2	8	5	...	3	4	5	10	11	1	...	56	
Moran Meer	13	21	8	9	...	...	3	...	2	4	11	75	5	2	1	7	5	1	5	8	14	13	11	1	...	71
Amritsar . . . . .	...	1	...	1	...	...	...	1	1	...	...	4	2	...	1	...	...	...	1	...	2	...	1	...	...	9
Sialkot	3	5	3	1	...	...	1	2	1	...	5	21	2	...	2	4	6	1	4	3	9	9	10	6	...	56
Jhelum	2	...	1	...	...	3	...	2	4	2	14	1	1	1	...	1	1	1	1	4	3	2	7	1	...	22
Rawalpindi	7	2	3	1	1	...	...	2	1	9	13	39	3	...	1	9	3	2	4	2	3	3	13	5	...	48
Attock . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2
GROUP VI.—UPPER SUB-HIMALAYA	43	43	27	21	7	4	11	2	8	21	30	57	274	20	9	11	40	35	18	47	37	58	85	85	33	479	

* Stations where neither Pneumonia nor Dysentery occurred are not shown in these tables. For the annual ratios see Table XXVIII.

STATIONS AND GROUPS.	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	1	2	2	3	...	1	1	...	2	12	1	4	2	6	2	1	...	2	3	1	1	1	3	34
Nowshera	1	1	...	5	...	...	...	...	1	...	1	1	9	1	...	...	...	...	...	...	...	...	...	...	...	61
Peshawar	10	6	3	4	1	2	...	...	...	4	2	4	41	5	2	3	10	2	6	5	15	24	22	25	4	127
Fort Jamrud . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	1	...	...	...	...	...	...	...	...	11	
Kohat	9	1	5	5	2	4	1	1	1	2	2	5	38	3	2	1	6	5	13	3	23	24	26	11	6	125	
Bahadur Khel . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	
Thal . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	1	1	...	...	8
Latanmar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	5
Edwardesabad	9	6	11	5	5	1	1	1	1	2	5	7	54	10	1	5	4	3	3	9	9	9	13	13	15	94	
Jani Khel . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	4	...	...	...	...	...	1	...	1	3	...	...	9
Khirgi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Dera Ismail Khan	3	4	1	...	...	...	...	...	...	...	5	16	29	...	3	3	16	6	15	7	16	31	14	12	10	133
Khairu Khel . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	2	...	...	3
Girni . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	4
Tank . . . . .	...	...	...	...	...	...	1	...	...	...	...	5	6	...	...	...	1	1	...	...	...	1	1	6	...	10
Jatta . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	3	...	1	...	8
Draband . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2
Drazand . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	4	...	...	1	1	...	...	8
Nili Kach . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	3	3	1	6	3	2	1	21
Murtaza . . . . .	...	1	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	1	1	3	3	...	...	9
Manjhi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	4	...	...	...	6
Fort Zam . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	4	2	9	...	...	1	...	1	1	...	1	...	20
Dera Ghazi Khan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	6	1	1	...	2	...	...	1	1	...	1	...	13
Mooltan	1	1	...	...	...	...	...	...	...	1	2	...	5	2	5	2	4	1	...	2	4	3	4	5	3	35
B.																											
Idak	1	...	...	...	...	...	...	...	...	...	1	2	4	...	...	...	1	...	1	1	...	...	2	1	...	6
Kajuri . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	3	1	...	1	...	...	5
Saidgi	2	1	...	...	...	...	...	1	...	...	...	...	6	...	...	1	...	...	...	1	...	3	4	...	...	10
Jandola . . . . .	...	...	...	...	...	...	...	...	...	...	...	5	5	...	1	2	7	7	16	5	3	1	1	5	13	11
Kajuri Kach	3	...	1	...	...	...	...	...	...	...	1	...	5	...	1	4	3	2	...	10	5	6	2	2	...	35
Sibi	2	3	1	...	...	...	1	...	...	...	...	...	7	3	1	...	1	...	2	...	1	...	...	...	...	8
C.																											
Jacobabad	2	2	2	2	...	...	...	...	...	...	2	...	10	1	...	2	1	1	...	...	...	3	7	5	1	21
Hyderabad	1	...	...	...	...	...	...	...	...	1	...	...	3	...	1	...	...	...	2	1	3	1	...	...	...	8
Kurrachee . . . . .	...	1	...	...	...	...	...	...	...	1	1	2	5	...	...	...	5	2	...	2	10	9	7	3	2	40
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA																											
	45	31	26	23	8	8	2	4	4	12	28	56	247	49	24	32	82	48	75	49	114	142	146	107	76	944	
A.																											
Bhuj . . . . .	...	...	...	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	1	1	...	2
Rajkot	1	...	...	...	...	...	...	...	1	...	1	1	4	1	1	1	...	...	...	2	2	...	1	1	1	10
Deesa	2	3	...	...	...	...	...	...	...	...	...	...	6	11	7	2	3	2	2	4	10	21	9	5	8	84
Ahmedabad	4	4	1	1	...	1	...	1	...	...	...	...	12	3	2	...	...	...	1	...	...	...	...	2	...	8
Baroda . . . . .	...	...	1	...	1	...	...	...	...	...	...	1	3	2	...	...	...	1	...	...	4	...	...	...	...	9
B.																											
Barwani . . . . .	...	...	...	...	...	1	1	...	...	...	1	...	3	...	...	...	...	...	...	...	1	...	...	...	...	1
Alirajpore . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirdarpore . . . . .	...	1	5	...	1	2	...	...	...	...	2	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Kherwara	3	5	2	1	...	...	...	...	1	1	3	...	16	...	...	...	...	...	...	...	2	...	1	...	...	3
Kotra	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Erinpura	15	2	4	...	...	...	...	...	...	...	1	...	22	...	2	...	1	...	...	...	2	1	3	...	1	10
Neemuch	1	2	...	...	1	...	...	...	...	...	...	1	4	1	...	...	...	...	...	1	1	...	...	...	...	3
Deoli . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3
Nasirabad	1	...	...	...	...	...	...	...	1	...	2	...	4	2	2	...	...	...	...	4	1	1	2	5	...	17
Ajmer	1	...	2	2	...	...	...	...	...	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Jaipur . . . . .	...	1	...	...	...	...	...	...	...	...	2	...	3	...	...	...	...	...	...	...	...	1	...	...	...	1
Agra	2	3	1	1	1	1	...	2	...	2	2	4	19	2	4	1	...	1	1	1	7	9	6	1	2	35	
Jhansi . . . . .	...	...	...	...	...	1	...	...	...	3	3	...	7	5	...	...	...	...	...	...	11	2	1	...	...	19
Nowgong . . . . .	...	1	...	2	...	...	...	...	1	1	1	...	6	...	...	...	1	1	...	1	...	4	3	...	...	10
Goona . . . . .	...	1	...	...	...	...	...	...	...	1	1	...	3	...	1	...	...	...	...	...	1	1	...	...	...	3
Agar . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1	4	2	...	...	9
Sehore	1	3	...	...	1	...	...	1	...	2	1	1	10	...	...	...	...	1	...	...	4	1	...	...	...	6
Indore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	4	1	2	...	...	...	9
Mhow	1	...	7	1	2	1	1	...	3	4	2	...	22	3	2	3	7	1	...	4	7	1	4	10	4	46	
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT																											
	33	25	24	9	7	7	2	4	4	17	18	18	168	30	24	7	12	7	5	12	49	51	40	27	24	258	
A.																											
Saugor	3	...	3	1	1	...	1	...	2	1	1	1	14	...	...	...	...	...	...	...	2	1	1	...	...	4
Sutna . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Jubbulpore . . . . .	...	1	...	...	...	...	...	...	...	...	2	1	4	3	...	...	...	3	...	4	...	3	1	2	...	16
Sambalpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...	5	2	2	2	...	...	...	17
Raipur	1	...	1	...	...	...	...	...	1	...	...	...	3	...	1	...	...	...	...	1	2	1	...	1	...	6
Kamptee . . . . .	...	1	...	1	...	...	...	...	...	...	...	3	5	...	...	...	...	1	1	3	...	...	...	...	...	5
Sitabaldi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	3

NATIVE TROOPS, 1901.

TABLE XXXVII—continued.

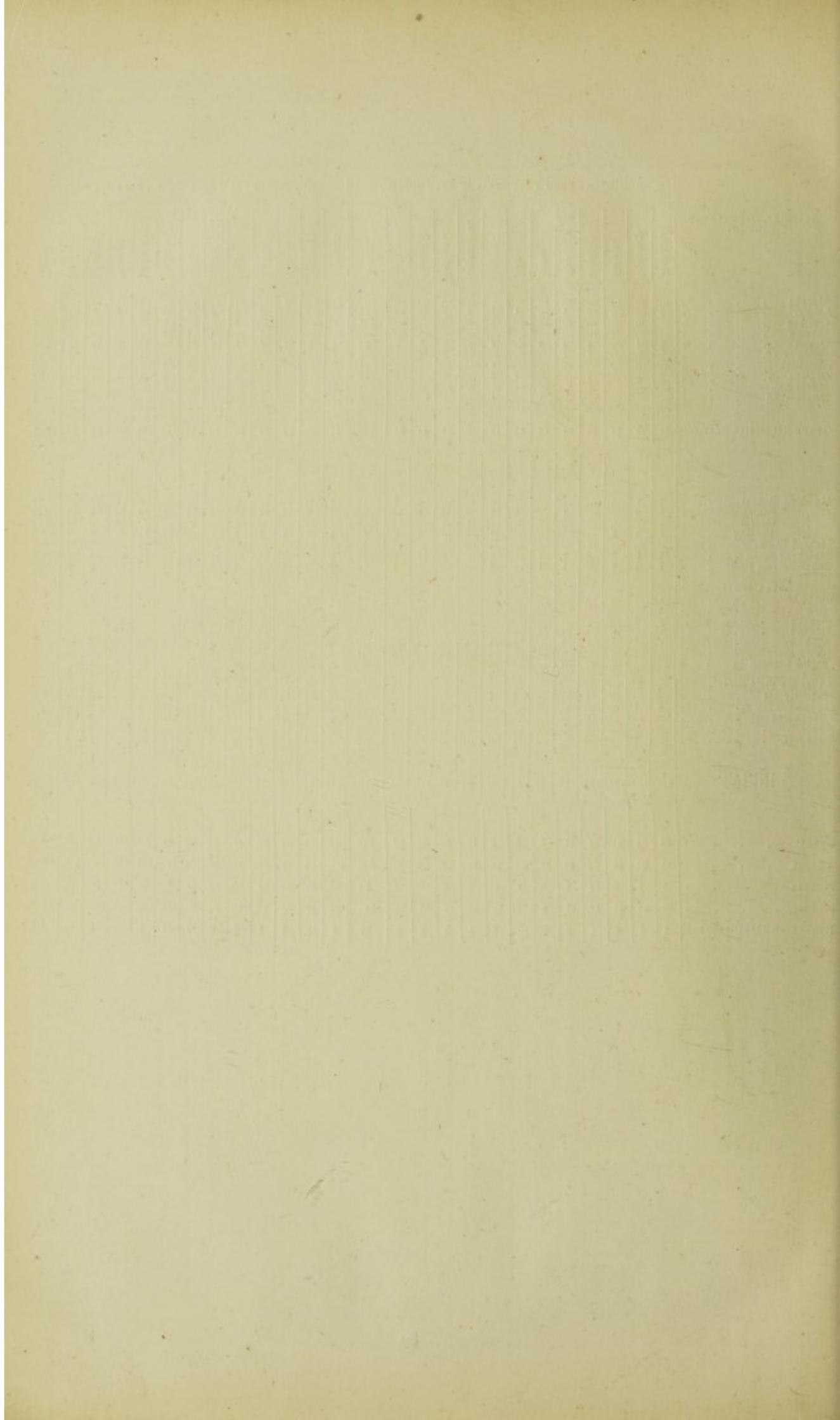
PNEUMONIA by months, stations, groups, and command.

TABLE XXXVIII—continued.

DYSENTERY by months, stations, groups, and commands.

STATIONS AND GROUPS.	ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												TOTAL.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
B.																										
Ellichpur	1	3	1									5	1	1	1			2	2	2				3	11	
Hingoli			2						2	1	1	6	1	2				6	11	2	2		1	2	27	
Jalna	1	1										2	1	1				1	2	1	1		2	9	9	
Aurangabad	2	2	1									5	4	2	1			9	9	3	3	3	3	3	37	
Ahmednagar																									2	
Mominabad								1	1	1		3	1	1	1						1			4	4	
Bolarum	1	1	1		1						1	4	1	1	1			3	7	4	3	3	9	32	32	
Secunderabad	1	1			1		2	2	3	3	2	14	3	6	7	5	1	4	9	6	3	3	2	1	49	49
Raichur								1	1			4				1								3	3	
Belgam	1	1	2									7	1	1								1	2	10	10	
Poona	1	3	2		2	1			2	2	1	12		1	3		5	6	3				1	18	18	
Kirkee	1	2	1									4				1						1	2	8	8	
Sirur													1		1							1	2	5	5	
GROUP IX.—DECCAN	10	9	13	8	9	4	4	6	10	9	10	92	9	19	15	16	8	20	49	53	17	22	10	29	267	
Bombay	2	2	7		2	1	2	2	1	3	2	25	8	6	2	1	4	4	2	3	4	10	21	27	92	
Cannanore													2		1				1		1	2	2	4	13	
Trivandrum																						1	1		2	
GROUP X.—WESTERN COAST	2	2	7		2	1	2	2	1	3	2	25	10	6	3	1	4	4	3	3	5	13	24	31	107	
A.																										
Bellary	1			1	2			1	1			6		4	3	1	1	3	4	1	1	2	1	2	23	
Bangalore	1	3	3	8	3	4	7	1	1	1	6	41	1	4	5	3	5	4	4	7	3	4		3	43	
B.																										
Trichinopoly											1	1	1					1	2		1	2	1	8		
Pallavaram																			3		2	2	2	5		
St. Thomas' Mount	1	1					2					7	2		2		1	1	2	2	4	2	2	20		
Madras													1	6	2		2	2	8	8	6	3	4	11	53	
C.																										
Vizianagram											2	2			1		2				1	2		2	8	
GROUP XI.—SOUTHERN INDIA	2	4	4	9	5	4	9	2	2	1	6	9	57	5	14	13	4	11	11	20	21	16	17	8	20	160
Maymyo						1			1			2		2	1	3	2	2	3	1	1			1	16	
Kohima	1		1			1					3	6	1			3	1	2	3	2	3		1	2	18	
Shillong	2		1					1	1	1		6	2	1	2	12	5	5	5	5	5	4			46	
Gantak	1	1										2	1	1		1						1		1	5	
Almora	3		3	1		1		1			1	10		1		5	1	3	4	5	3		2		24	
Ranikhet												1														
Naini Tal	1		1	1			1			1		5														
Lansdowne	1	5	4	4	3	3	2	1	4	4	3	37	1		1	1	2	3	2	2	2			1	15	
Simla																						1			1	
Jetogh				1								1							2	1	1	2			6	
Dharmasala	1	1	2		1	3					5	15	1	1	1	2	2	1	1	1	1	2		2	14	
Bakloh	4	1	1	1							1	8	1				2	1	1	1	3	5			14	
Khyragully								1				1													3	
Baragully					1							1					1				1				3	
Kalabagh								1				1													1	
Chitral									1			1													1	
Kila Drosh	2										1	3	2	1	1	4	3	1	4		1	4	1	3	8	
Abbottabad	2	4	3	9	5	1	3		2		1	33	5	2	2	4	6	1	1	24	7	8	12	8	80	
Cherat																1		1	1	1	2	2			11	
Hangu	1				2					3	1	7	2		1	3			1				1		8	
Miran Shah	5	2						1			1	9	1	1			1		1	2	4	3	1	3	17	
Boya	1	1								1		3	1	2		1				2		1	2	1	10	
Datta Khel	6	2	8	1	1	1		1	4	5	20	49	2		1	5	5	5	12	20	32	15	11	15	123	
Haldari Kach													1	1											2	
Sarwekai	4	1	3	9	3	1	1		1	1	9	33	2			7	3	10	10	13	15	9	21	36	126	
Nagandioba				1								1	1				1			1	1		2	3	10	
Spin	1											1								2	4	1			9	
Wana	6	2	6	3				2	11	14	44	66	1	1	1	3	1	8	15	26	8	8	11	20	103	
Wazirbagh						1				1	3	6				1	5	9	6	3	3	1		1	20	
Mir Ali Khel	1	1	2								10	14	1						1		1	3	2	1	9	
Fort Sandeman	1								1	2	3	7	1			10	7	3		3	5	2	1		32	
Musa Khel									1			1								1		1			3	
Khan Mohamed Kot							1			1		2				2			1	1	2		1		9	

STATIONS, GROUPS, AND COMMANDS.	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.	
Murgha . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Loralai	3	...	4	2	1	...	1	1	1	2	...	...	15	...	...	1	3	4	4	4	8	25	6	3	...	57
Gumbaz . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	5
Sharigh . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4
Quetta	9	1	...	4	4	2	...	2	1	2	7	7	39	4	3	1	2	1	10	16	8	21	30	15	15	126	
Peshin	1	...	1	1	...	...	...	...	...	3	1	2	9	1	...	...	...	...	...	1	...	1	2	5	3	13
Shelabagh . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	...	...	10	3	4	...	...	...	...	18
Chaman	2	3	...	1	...	...	2	1	...	...	1	2	12	...	...	1	...	4	2	5	1	1	1	1	1	17
Mount Abu . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Ootacamund . . . . .	...	...	...	...	...	1	...	1	...	...	...	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2
GROUP XII.—HILL STATIONS	51	30	35	46	24	12	15	11	16	21	44	85	399	31	18	15	75	59	76	111	142	160	121	96	119	1,023	
Marching, Bengal	2	1	...	...	...	...	...	...	...	...	4	8	15	12	9	...	...	...	...	1	...	4	1	13	32	72
" Punjab	8	4	...	...	1	...	2	1	3	5	7	31	62	14	9	16	11	20	24	18	40	53	82	66	72	425
" Madras . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2	...	...	...	1	...	...	...	...	...	1	6	10	18
" Bombay	2	1	2	...	...	...	...	1	2	...	1	8	17	3	2	1	1	2	2	...	13	11	17	7	8	67
Mahsud Blockade . . . . .	...	...	...	...	...	...	...	...	...	...	...	40	40	...	...	...	...	...	...	...	...	...	...	...	209	209
Malakand Force	10	8	6	2	2	1	...	1	...	3	11	6	50	9	1	2	22	14	14	23	37	39	36	23	7	227	
Kohat-Kurram Force	2	1	2	...	1	1	...	2	...	...	...	3	12	1	4	2	5	1	2	3	7	14	15	3	2	59
EXTRA INDIA.																											
Chabbar	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	3	...	2	1	2	1	...	11
Jask	4	...	...	...	...	...	...	...	1	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Bushire	2	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Bagdad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Aden	1	1	1	1	2	...	1	1	1	2	1	...	12	1	...	2	...	3	1	4	4	5	5	17	15	57	
Rhormaksar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
Sheikh Othman . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	1	...	5
Perim . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	1	4	9
Ad Dariga Field Force . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	4
Mauritius . . . . .	...	...	...	1	...	...	1	1	...	...	...	...	3	12	24	29	34	8	8	15	17	2	9	6	4	168
Colombo	2	1	...	...	...	...	...	...	2	...	2	...	7	5	1	1	1	...	1	1	1	1	2	2	9	25
Trincomalee . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	1	1	...	1	...	1	...	3	...	10
Kandy . . . . .	...	...	...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	1	...	...	...	1	...	3
Singapore	1	...	...	...	...	1	...	...	...	...	...	1	3	3	...	3	4	4	1	5	...	7	9	3	39	
INDIA	232	173	157	134	70	39	54	39	49	101	173	343	1,561	266	184	176	348	262	297	432	629	637	705	598	775	5,399	
BENGAL	28	29	21	27	11	8	8	7	11	21	33	36	240	49	32	20	63	47	43	69	90	98	110	102	90	813	
PUNJAB	128	94	78	69	30	16	22	10	21	40	95	195	800	106	54	67	171	130	156	164	309	355	386	328	269	2,495	
MADRAS	5	7	7	13	6	6	12	6	6	6	8	12	94	38	30	33	25	26	27	72	61	38	50	38	66	504	
BOMBAY	66	38	47	17	18	9	10	13	10	29	32	54	343	49	33	20	48	44	51	80	116	133	131	105	105	916	
HYDRABAD CONTINGENT	3	3	4	4	5	...	...	2	1	3	2	2	20	2	10	5	2	2	6	27	27	9	10	4	19	123



III.—PRISONERS, 1901.

TABLE K.

JAILS by ADMINISTRATIONS.

JAILS.	Height above the sea-level in feet.*	Authority for height.†	JAILS.	Height above the sea-level in feet.*	Authority for height.†	JAILS.	Height above the sea-level in feet.*	Authority for height.†
ANDAMANS :—			BENGAL :—contd.			N.-W. F. PROVINCE :—		
Port Blair Convict Settlement	85	S. G.	Champaran (Motihari)	217	S. G.	Feshawar	1,165	S. G.
BURMA :—			Muzaffarpur	179	"	Kohat	1,765	"
Mergui	14	S. G.	Patna (Bankipore)	177	"	Bannu	1,279	"
Tavoy	69	"	Arrah (Shahabad)	191	M. D.	Dera Ismail Khan	571	"
Moulmein	288	"	Chupra (Saran)	204	S. G.	Abbotabad	4,152	"
Shwegyin	128	"	Buxar Central					
Toungoo	156	"	Darjeeling	7,168	"			
Rangoon Central, Europeans	14	"	UNITED PROVINCES OF AGRA AND OUDH(a) :—			BALUCHISTAN :—		
Rangoon Central, natives						Quetta	5,511	S. G.
Maubin	...	...	Korantadih (Ballia)	...	...	BOMBAY :—		
Myaungmyo	...	...	Ghazipur	227	S. G.	Shikarpur	194	S. G.
Bassein Central	40	S. G.	Azamgarh	256	"	Sind Gang	...	...
Insein	34	"	Kasia	...	...	Hyderabad Central	134	I. B.
Henzada	44	"	Gorakhpur	255	S. G.	Kurrachee	28	S. G.
Myanaung	74	"	Basti	292	"	Rajkot	417	"
Sandoway	...	...	Fyzabad	336	"	Ahmedabad Central	170	"
Kyaukpaya	...	...	Sultanpur	305	I. B.	Dhulia	842	"
Akyab	32	S. G.	Rai Bareilly	351	S. G.	Yerrowda Central (Poona)	1,951	I. B.
Paungdi	...	...	Partabgarh	311	"	Bijapur	1,998	S. G.
Prome	...	...	Jaunpur	263	"	Deccan Gang	...	...
Thayetmyo Central	145	S. G.	Benares Central	256	"	Dharwar	2,385	S. G.
Taungdwingyi	492	"	District	...	...	Thana	24	"
Magwe	...	...	Mirzapur	283	"	Bombay Common	20	"
Minbu	...	...	Allahabad Central	298	"	House of Correction	...	...
Yamethin	653	S. G.	District	...	...	Ratnagiri	110	M. D.
Meiktila	298	"	Karwi	...	...	Karwar	12	S. G.
Pagan	...	...	Banda	415	S. G.	Aden	26	"
Pakokko	...	...	Fatehpur	373	"			
Myingyan Central	243	S. G.	Hamirpur	367	"			
Mandalay	249	"	Orai (Jalaun)	...	...	
Monywa	...	...	Cawnpore	417	S. G.			
Shwebo	690	M. O.	Unao	412	"	RAJPUTANA :—		
Bhamo	351	S. G.	Lucknow Central	400	"	Ajmer	1,627	S. G.
Katha	329	"	District	...	...	
Kindat	361	"	Barabanki	378	"	HERAR AND SECUNDERABAD :—		
			Gonda	...	...	Secunderabad	1,732	S. G.
ASSAM :—			Bahraich	398	S. G.	Yeotmahl	1,476	"
Cachar (Silchar)	104	M. D.	Kheri	471	"	Amraoti Central	1,194	"
Sibsagar	318	S. G.	Sitapur	449	"	Ellichpur	1,218	"
Dibrugarh	342	"	Hardoi	462	"	Akola Central	920	"
Tezpur	292	"	Etawah	498	"	Basim	1,842	"
Nowgong	208	"	Mainpuri	511	"	Buldana	2,132	M. D.
Gauhati	134	I. B.	Etah	550	"			
Dhubri	134	S. G.	Fatehgah Central	...	...	CENTRAL PROVINCES :—		
Sylhet	257	M. D.	District	444	I. B.	Damoh	1,236	S. G.
Shillong	4,987	S. G.	Shahjahanpur	597	S. G.	Saugor	1,753	"
			Bareilly Central	560	"	Jubbulpore Central	1,306	"
			District	...	...	Narsinghpur	1,305	I. B.
BENGAL :—			Budaon	544	"	Mandla	1,487	S. G.
Mymensingh	59	M. D.	Aligarh	610	"	Bilaspur	884	"
Dacca Central	20	"	Balandshahr	727	"	Sambalpur	490	"
Tippera (Coimilla)	36	"	Moradabad	655	"	Raipur Central	975	"
Chittagong	87	"	Bijnor	772	"	Balaghat (Burha)	...	...
Noakhali	43	"	Dehra Dun	2,229	"	Seoni	2,043	S. G.
Backergunge (Barisal)	13	"	Saharanpur	903	"	Chhindwara	2,236	"
Khulna	...	...	Muzaffarnagar	790	"	Hoshangabad	1,030	"
Jessore	33	M. D.	Meerut	739	"	Nimar (Khandwa)	1,042	I. B.
Baraset	...	...	Muttra	576	"	Betul	2,189	S. G.
Presidency Central, Europeans	...	...	Agra Central	...	...	Nagpur Central	1,025	"
" natives	17	S. G.	District	554	"	Bhandara	861	"
Atipore	21	I. B.	Jhansi	860	"	Wardha	935	"
Hooghly	34	S. G.	Lalitpur	...	...	Chanda	658	"
Burdwan	97	"	Almora	5,494	S. G.	Sironcha	406	"
Krishnagar (Nadia)	32	"	Pauri	...	...	
Faridpur	46	M. D.	PUNJAB :—					
Fubna	...	...	Delhi	715	S. G.	MADRAS :—		
Murshidabad (Berhampore)	67	M. D.	Rohtak	712	"	Mangalore	42	S. G.
Rajshahi Central (Rampur Boalia)	70	"	Hissar	689	I. B.	Cannanore Central	47	"
Bogra	61	"	Karnal	809	S. G.	Bellary	1,483	"
Malda	72	"	Umballa	902	"	Salem Central	919	"
Dinajpur	123	"	Ludhiana	806	"	Coimbatore	1,348	M. D.
Rangpur	123	"	Hoshiarpur	1,058	"	Palamcottah	129	S. G.
Jalpaiguri	284	"	Jullundur	900	"	Madura	438	"
Perneah	120	S. G.	Ferozepore	645	"	Trichinopoly Central	274	"
Naya Dumka	489	M. D.	Amritsar	756	"	Tanjore	193	"
Suri (Birbhum)	...	...	Lahore Central	...	...	Cuddalore	19	"
Bankura	298	M. D.	District	706	"	Vellore Central	698	"
Midnapore Central	149	"	Female	...	...	Madras Civil	...	...
Balasore	59	S. G.	Gerdaspur	...	...	Penitentiary Central	15	"
Cuttack	74	"	Gujranwala	...	...	Nellore	57	"
Puri	17	"	Sialkot	829	S. G.	Rajamundry Central	112	M. D.
Angul	...	...	Gujrat	...	...	Vizagapatam	14	S. G.
Chaibassa (Singbhum)	745	S. G.	Mung Rasul Central	...	...	Berhampur	60	"
Purulia (Manbhum)	...	...	Jhelum	827	S. G.	Russelkonda	...	...
Ranchi (Lohardaga)	2,128	S. G.	Rawalpindi	1,707	"			
Palsamau (Daltongunge)	...	...	Shahpur	644	"	COORG :—		
Hazaribagh Central	1,997	S. G.	Jhang	...	...	Mercara	3,835	S. G.
Gaya	375	M. D.	Montgomery Central	600	I. B.			
Rhagalpur Central	147	S. G.	Mooltan Central	...	...	
Monghyr	148	"	District	402	S. G.			
Darbhanga	167	"	Dera Ghazi Khan	395	"			
			Simla	7,239	"			
			Dharmasala	6,111	"			

* 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.

(a) Late North-Western Provinces and Oudh.

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.											
	Anda- mans.	Burma.	Assam.	Bengal.	United Prov- inces.	Punjab.	N.-W.F. Pro- vince.	Bombay	Berar and Se- cunder- abad.	Central Provin- ces.	Madras.	India.*
I.—AVERAGE ANNUAL STRENGTH	17,183	11,840	1,338	20,149	29,311	13,469	1,248	10,270	1,483	4,802	10,456	117,203
II.—CONSTANTLY SICK-RATE OF EACH MONTH—												
January	33'3	25'2	34'4	35'5	35'4	40'7	27'1	32'0	20'9	28'6	24'3	32'9
February	35'7	24'1	32'8	39'0	34'2	32'7	19'5	30'6	16'2	28'2	22'8	31'9
March	38'5	27'0	34'1	49'7	34'6	29'8	21'1	33'7	14'6	27'0	26'4	33'1
April	44'7	24'1	37'9	44'1	42'7	32'2	35'5	32'0	17'7	28'2	25'8	36'4
May	49'8	23'4	49'9	41'1	43'0	42'9	31'5	29'5	22'3	23'5	25'1	37'4
June	65'8	25'2	60'5	37'7	37'4	48'9	30'1	30'3	14'9	21'8	27'3	38'3
July	60'8	27'4	49'8	39'6	40'8	39'1	30'1	33'8	20'3	23'7	23'9	38'9
August	66'5	27'6	47'7	42'0	38'5	40'8	38'1	40'4	24'5	30'8	23'8	36'6
September	54'8	27'8	47'3	41'3	42'6	39'1	31'2	38'2	22'0	37'2	23'4	39'0
October	53'0	28'4	47'7	39'3	43'5	36'8	32'8	44'4	26'4	31'8	23'9	38'9
November	50'5	26'1	48'4	37'4	42'8	36'1	33'4	49'2	23'7	31'3	24'5	38'2
December	43'0	24'0	35'4	36'3	39'9	34'3	35'1	45'7	23'0	29'7	29'7	36'1
OF THE YEAR	50'6	25'8	44'8	39'5	39'5	37'8	30'4	36'9	20'2	28'5	25'2	36'7
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS	...	...	41'7	38'0	...	37'6	31'4	34'0	...	...	24'1	35'8
III.—ADMISSION-RATE OF THE YEAR—												
Influenza	4'4	...	65'8	29'6	64'8	'8	...	1'2	56'6	12'3	16'2	25'4
Cholera . . . . .	...	2'2	'7	1'7	1'6	...	...	...	...	'2	9'6	1'8
Small-pox . . . . .	...	...	'7	'3	...	'1	13'6	3'2	...	'6	...	'5
Enteric Fever . . . . .	...	'8	...	'1	'4	'4	...	'5	...	'4	'5	'3
Intermittent Fever	926'2	142'7	365'5	322'4	263'6	599'3	389'4	413'2	265'7	367'1	141'8	377'3
Remittent Fever	21'3	4'6	5'2	2'9	'5	1'7	4'0	10'3	'7	1'0	1'5	4'7
Simple Continued Fever . . . . .	...	6'3	8'2	29'2	3'3	2'7	'8	6'8	9'4	1'0	36'5	10'9
Tubercle of the lungs	10'8	9'9	2'2	9'4	8'6	8'7	3'2	5'6	4'0	5'2	12'0	8'8
Pneumonia	13'1	5'3	2'2	11'6	11'7	20'3	19'2	33'6	20'9	11'5	10'7	14'2
Other Respiratory Diseases	57'5	9'5	27'7	31'0	30'1	49'0	32'1	48'8	26'3	18'1	24'2	33'8
Dysentery	163'6	58'6	257'1	259'6	51'8	88'5	63'3	55'1	30'3	65'6	62'7	168'0
Diarrhoea	50'2	47'0	72'5	104'2	35'8	79'0	32'1	47'8	25'6	77'3	8'6	55'8
Spleen Diseases . . . . .	...	'2	...	1'1	2'0	1'3	...	'7	...	'2	...	'2
Scurvy	1'5	4'9	3'0	'8	'1	'7	...	4'1	...	'2	'2	1'3
Anæmia and Debility	3'9	4'7	30'6	10'0	22'4	20'6	13'6	15'5	14'8	31'2	4'8	14'5
Abscess, Ulcer, and Boil	112'0	74'3	39'6	46'0	113'6	143'7	177'1	49'0	30'3	76'6	28'7	85'0
ALL CAUSES	1,683'3	550'9	1,021'7	1,090'5	840'1	1,251'1	952'7	993'9	676'3	804'4	592'6	980'9
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS	...	...	1,029'4	1,067'6	...	1,244'8	1,046'7	993'9	...	...	688'8	978'1
IV.—DEATH-RATE OF THE YEAR—												
Cholera . . . . .	...	1'44	'75	'89	1'13	...	...	...	...	...	3'54	'90
Small-pox . . . . .	...	...	...	'10	...	...	4'01	'29	...	...	...	'09
Enteric Fever . . . . .	...	'17	...	'05	'23	'22	...	'29	...	'21	'29	'17
Intermittent Fever	1'16	'17	2'24	1'59	'89	1'11	...	'88	...	'42	'67	'85
Remittent Fever	2'87	'17	2'99	'35	'07	'45	...	1'56	'67	...	'10	'65
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	'19	...	...	...	'02
Tubercle of the lungs	6'57	4'31	...	3'72	3'68	3'04	...	3'80	2'02	2'50	4'11	3'86
Pneumonia	4'10	1'18	'75	2'83	2'46	5'12	4'81	10'02	6'74	3'12	2'10	3'61
Other Respiratory Diseases	'08	'25	'75	'74	1'19	'45	'80	1'95	3'37	1'46	'10	'03
Dysentery	11'08	2'28	5'08	8'14	5'87	4'08	4'01	2'03	2'02	7'91	2'87	5'85
Diarrhoea	2'05	'17	2'99	1'09	1'23	1'04	...	1'85	'67	4'79	...	1'34
Hepatic Abscess	'08	...	...	'10	'03	...	...	'19	'67	...	'10	'07
Anæmia and Debility	'08	'17	3'74	'40	'48	1'11	...	1'46	2'70	2'29	'29	'71
Phagedæna, Slough, and Gangrene	'08	...	...	'05	...	...	'80	...	...	...	'10	'03
ALL CAUSES	36'94	15'29	26'16	27'59	24'29	27'03	22'44	36'12	24'95	27'49	23'34	26'87
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS	...	...	24'51	27'49	...	27'01	21'44	34'95	...	...	21'74	26'59
V.—PERCENTAGE IN 100 ADMISSIONS—												
Influenza	'26	...	6'44	2'71	7'71	'07	...	'12	8'37	1'42	2'73	2'59
Cholera . . . . .	...	'40	'07	'16	'10	...	...	...	...	'02	1'61	'18
Small-pox . . . . .	...	...	'07	'03	'00	'01	1'43	'32	...	'07	...	'05
Enteric Fever . . . . .	...	'15	...	'01	'04	'04	...	'05	...	'05	'08	'04
Intermittent Fever	55'02	25'01	35'77	29'36	31'37	47'90	40'87	41'58	39'28	42'46	33'93	38'46
Remittent Fever	1'27	'83	'51	'27	'06	'14	'42	1'04	'10	'12	'26	'48
Simple Continued Fever . . . . .	...	1'13	'80	2'68	'39	'22	'08	'69	1'40	'12	6'17	1'11
Tubercle of the lungs	'64	1'79	'22	'86	1'02	'69	'34	'56	'60	'60	2'02	'90
Pneumonia	'78	'07	'22	1'06	1'40	1'62	2'02	3'38	3'09	2'10	4'08	3'44
Other Respiratory Diseases	3'42	1'72	2'71	2'84	3'38	3'92	3'36	4'91	3'89	7'59	10'59	11'01
Dysentery	9'72	10'64	25'16	23'81	6'16	2'07	6'64	5'55	4'49	7'59	14'45	5'69
Diarrhoea	2'98	8'52	7'10	9'55	4'26	6'36	4'81	3'79	'31	'31	...	'12
Spleen Diseases . . . . .	...	'03	...	'10	'24	'10	...	'30	'10	...	...	'12
Scurvy	'09	'89	'29	'08	'01	'06	...	'41	...	'02	'03	'12
Anæmia and Debility	'23	'86	3'00	'91	2'66	1'65	1'43	1'56	2'19	3'61	'81	1'48
Abscess, Ulcer, and Boil	6'66	13'49	3'88	4'22	13'52	11'49	18'59	4'93	4'49	8'86	4'84	8'67
VI.—PERCENTAGE IN 100 DEATHS—												
Cholera . . . . .	...	9'4	2'9	8'2	4'6	...	...	...	...	...	15'2	3'4
Small-pox . . . . .	...	...	...	'4	...	...	17'9	'8	...	...	...	'3
Enteric Fever . . . . .	...	'11	...	'2	'10	'8	...	'8	...	'8	'12	'6
Intermittent Fever . . . . .	...	'11	8'6	5'8	3'7	4'1	...	2'4	...	1'5	2'9	3'2
Remittent Fever	7'8	'11	11'4	1'3	'3	1'6	...	4'3	2'7	...	'4	2'4
Simple Continued Fever . . . . .	...	...	...	...	...	...	...	'5	...	...	...	'1
Tubercle of the lungs	17'8	28'2	...	13'5	15'2	11'3	...	10'5	8'1	9'1	17'6	14'4
Pneumonia	11'1	'77	2'0	10'3	10'1	19'0	21'4	27'8	27'0	11'4	9'0	13'4
Other Respiratory Diseases	2'7	'17	2'9	2'7	4'9	1'6	3'6	5'4	13'5	5'3	'4	3'5
Dysentery	32'4	14'9	22'9	29'5	24'2	17'3	17'9	7'3	8'1	28'8	12'3	21'8
Diarrhoea	5'6	'6	11'4	4'0	3'1	3'8	...	3'1	2'7	17'4	...	'4
Hepatic Abscess	'2	...	...	'4	'1	...	...	'5	2'7	...	'4	'3
Anæmia and Debility	'2	'11	14'3	1'4	2'0	4'1	...	4'0	10'8	8'3	'2	2'6
Phagedæna, Slough, and Gangrene	'2	...	...	'2	...	...	3'6	...	...	...	'4	'1

* Including Ajmer, Quetta, Mercara.

For complete detail of diseases, see Table LIII.

PRISONERS, 1901.

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.

				RATIOS PER 1,000 OF THE 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-Himalaya.	N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	S.-E. Rajputana, Central India, and Gujarat.	Deccan.	Western Coast.	Southern India.	Hills.	India
I.—AVERAGE ANNUAL STRENGTH				19,945	4,078	1,308	12,467	27,156	14,698	8,118	5,521	10,559	3,208	9,464	640	117,2
II.—CONSTANTLY SICK-RATE OF EACH MONTH—																
January				31.1	20.4	35.3	40.4	32.0	39.6	28.2	44.7	34.3	21.4	24.8	29.4	32.1
February				37.3	19.0	33.7	43.3	32.7	33.1	23.8	39.4	33.5	19.7	23.6	22.2	31.1
March				34.9	27.2	34.2	43.9	34.2	32.4	23.0	40.0	32.1	22.3	20.8	28.2	33.1
April				37.2	21.4	33.9	45.9	38.5	39.6	26.8	50.6	32.7	25.3	27.9	27.6	36.1
May				40.3	19.1	30.4	43.7	39.4	45.5	32.3	39.0	31.0	25.3	25.5	30.5	36.1
June				50.3	23.4	67.2	41.0	33.8	43.3	35.6	44.1	30.4	25.7	27.5	43.9	38.1
July				54.1	23.1	49.9	43.7	37.4	38.7	27.9	45.3	35.0	25.5	24.3	41.8	38.1
August				52.1	24.1	47.7	45.8	36.0	40.3	29.9	45.2	43.1	29.7	24.2	34.8	39.1
September				44.9	25.2	47.5	44.0	38.9	39.9	28.4	49.1	45.3	27.5	23.4	39.7	39.1
October				44.3	24.6	48.0	39.8	39.0	38.8	32.2	51.6	49.1	23.9	23.8	36.1	38.1
November				47.0	21.7	48.0	37.1	38.3	37.5	35.1	52.9	50.8	22.5	24.9	30.4	38.1
December				36.7	18.8	34.6	37.6	34.7	36.8	37.0	52.4	43.6	21.5	30.5	32.4	36.1
			OF THE YEAR	41.6	22.3	45.1	42.0	36.2	38.6	30.2	46.4	38.5	24.6	25.6	32.4	36.1
III.—ADMISSION-RATE OF THE YEAR—																
Influenza				2.7	...	61.9	28.7	45.0	43.2	4	52.0	13.5	5.9	17.1	23.4	25.1
Cholera				1.1	1.0	8	1.1	2.5	1	...	...	1	3	10.0	6.3	1.1
Small-pox				...	...	8	4	1	1	3.9	2.0	7	1.2	...	...	...
Enteric Fever				4	5	...	1	4	4	2	4	3	1.6	1	...	...
Intermittent Fever				62.3	13.9	37.3	28.6	25.2	53.2	37.8	35.6	49.0	169.9	148.9	237.5	377.1
Remittent Fever				15.4	1.7	5.4	3.1	1.0	1.6	1.8	1.1	6.3	13.1	1.6	1.6	4.1
Simple Continued Fever				3.4	1.7	8.4	4.2	4.3	4.9	1.5	4	1.8	17.8	40.4	10.9	10.1
Tubercle of the lungs				9.9	12.5	2.3	11.1	8.1	8.8	6.7	8.3	3.8	10.3	12.0	4.7	8.0
Pneumonia				9.0	10.5	2.3	9.4	11.5	10.3	33.4	24.6	14.5	11.8	10.4	15.6	14.1
Other Respiratory Diseases				38.1	13.2	28.3	30.3	27.7	48.9	43.2	35.3	31.7	39.0	24.1	35.9	33.1
Dysentery				123.6	54.2	259.9	300.3	93.9	70.7	79.5	43.8	52.8	57.0	65.5	81.3	108.1
Diarrhoea				52.9	27.2	71.9	107.8	52.9	68.6	45.3	40.9	65.7	22.4	8.0	78.1	55.1
Spleen Diseases				1	2	...	1.5	1.5	1.4	2.1	5.3	1.5	...	...	...	1.1
Scurvy				3.8	2	3.1	1.3	1	4	3.8	7	8	1.6	2	...	1.1
Anaemia and Debility				4.2	4.9	30.6	12.5	16.2	20.5	22.7	24.3	24.2	7.5	5.0	29.7	14.2
Abscess, Ulcer, and Boil				104.1	41.2	39.8	42.4	101.7	120.8	103.6	104.9	73.0	26.8	29.5	68.8	83.1
			ALL CAUSES	1,257.0	480.9	1,029.1	1,131.0	849.7	1,163.8	925.4	939.0	1,088.5	554.2	610.5	875.0	930.1
IV.—DEATH-RATE OF THE YEAR—																
Cholera				.65	.98	.76	.40	1.62	.14	...	...	...	...	3.80	1.96	.90
Small-pox				...	...	...	.16	...	...	.86	...	...	...	...	...	.05
Enteric Fever				...	.25	...	...	...	...	...	...	...	.31	...	...	.05
Intermittent Fever				.20	...	2.29	1.28	1.36	.95	.74	1.09	.38	.94	.53	3.13	.12
Remittent Fever				1.86	...	3.06	.48	1.11	.20	.49	.54	.19	4.05	.11	...	.60
Simple Continued Fever				...	...	...	...	...	...	...	.36	...	...	...	...	.60
Tubercle of the lungs				5.72	4.17	...	4.01	3.50	2.93	2.96	5.07	2.18	5.92	4.12	...	3.86
Pneumonia				2.71	2.45	.76	2.49	2.26	4.22	10.84	7.06	4.07	3.74	1.80	3.13	3.61
Other Respiratory Diseases				.70	.25	.76	.96	1.07	.41	.86	2.54	1.99	.94	1.11	...	.91
Dysentery				8.22	2.21	6.12	10.11	5.89	5.72	3.33	3.26	4.74	2.49	3.06	4.69	5.81
Diarrhoea				1.25	.49	3.06	1.04	1.40	1.02	.12	2.17	3.03	1.87	...	14.06	1.34
Hepatic Abscess				.05	...	...	.16	...	.07	.25	...	.09	...	.11	...	.07
Anaemia and Debility				.15	...	3.82	.24	...	.59	.34	2.09	.72	1.61	2.18	.21	6.25
Phagedaena, Slough, and Gangrene				.05	...	...	...	.04	...	.12	...	...	...	.11	...	.03
			ALL CAUSES	28.28	16.43	26.76	27.03	27.07	24.70	30.30	30.07	25.10	38.97	23.25	40.63	20.82
V.—PERCENTAGE IN 100 ADMISSIONS—																
Influenza				.22	...	6.02	2.54	5.30	3.71	.04	5.54	1.24	1.07	2.80	2.68	2.59
Cholera				.09	.20	.07	.10	.29	.01	...	...	.01	.06	1.64	.71	.18
Small-pox				...	...	.07	.04	.01	.43	...	.21	.06	.22	...	...	.05
Enteric Fever				.03	.10	...	.01	.04	.03	.03	.04	.03	.28	...	...	.04
Intermittent Fever				49.59	27.64	36.18	25.61	30.27	45.73	40.62	37.96	45.38	30.65	24.39	27.14	35.46
Remittent Fever				1.22	.36	.52	.28	.11	.13	.20	.12	.58	2.36	.26	.18	.48
Simple Continued Fever				.27	.36	.82	3.73	.51	.42	.16	.04	.37	3.21	6.61	1.25	1.11
Tubercle of the lungs				.79	2.60	.22	.99	.95	.76	.72	.89	.35	1.86	1.97	.54	.90
Pneumonia				.71	2.19	.22	.83	1.35	1.66	3.82	2.62	1.33	2.14	1.70	1.79	1.44
Other Respiratory Diseases				3.03	2.75	2.75	2.68	3.26	4.20	4.67	3.76	2.91	7.03	3.95	4.11	3.44
Dysentery				9.84	11.27	25.26	26.53	11.05	6.07	8.59	4.67	4.86	10.29	10.73	9.29	11.01
Diarrhoea				4.21	5.66	6.98	9.53	6.23	5.90	4.90	4.36	6.04	4.05	1.32	8.93	5.69
Spleen Diseases				.00	.05	...	.13	.18	.12	.23	.56	.14	...	...	...	.12
Scurvy				.30	.05	.30	.11	.01	.04	.41	.08	.07	.28	.03	...	.12
Anaemia and Debility				.34	1.02	2.07	1.11	1.91	1.77	2.45	2.58	2.22	1.35	.81	3.39	1.48
Abscess, Ulcer, and Boil				8.28	8.57	3.86	3.75	11.97	10.38	11.20	11.17	6.71	4.84	4.83	7.86	8.67
VI.—PERCENTAGE IN 100 DEATHS—																
Cholera				2.3	6.0	2.9	1.5	6.0	.6	...	...	...	...	16.3	3.8	3.4
Small-pox				...	...	...	.6	...	...	2.8	...	...	...	...	...	.3
Enteric Fever				.12	...	...	...	...	...	...	...	...	.8	...	...	.6
Intermittent Fever				.7	1.5	...	...	.8	1.1	.4	1.2	.4	3.2	...	...	.3
Remittent Fever				.6	...	8.6	4.7	5.0	3.9	2.4	3.6	1.5	2.4	2.3	7.7	3.2
Simple Continued Fever				...	...	11.4	1.8	.4	.8	1.6	1.8	.8	10.4	.5	...	2.4
Tubercle of the lungs				...	...	...	...	...	...	...	1.2	...	...	...	...	.1
Pneumonia				20.2	25.4	...	14.8	12.9	11.8	9.8	16.9	8.7	15.2	17.7	...	14.4
Other Respiratory Diseases				9.6	14.9	2.9	9.2	8.7	17.1	35.8	23.5	16.2	9.6	7.7	7.7	13.4
Dysentery				2.5	1.5	2.9	3.6	3.9	1.7	2.8	3.4	7.9	2.4	.5	...	3.5
Diarrhoea				29.1	13.4	22.9	37.4	21.8	23.1	11.0	10.8	18.9	6.4	13.2	11.5	21.8
Hepatic Abscess				4.4	3.0	11.4	3.9	5.2	4.1	.4	7.2	12.1	4.8	...	34.6	5.0
Anaemia and Debility				.5	...	14.3	.9	...	2.2	1.4	6.9	2.4	6.4	.9	15.4	2.6
Phagedaena, Slough, and Gangrene				.2	...	...	...	1	...	...	...	...	...	.5	...	.1

* Including Aden. For complete detail of diseases, see Table LIII.

TABLE XLII.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.							2. DEATH-RATE, PER 1,000 OF STRENGTH.													Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Euteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Continued Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scoury.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Stomach, and Gangrene.	ALL CAUSES.		
Port Blair	12,183	4.4	...	...	...	926.2 '16	21.3 '27	...	10.8 6.37	13.1 4.10	37.5 '08	163.6 11.98	30.2 2.05	...	1.5 '08	3.9 '08	112.0 ...	1.1 '08	1,683.3 36.94	50.6
Mergui	38	78.9	26.3	78.9	26.3	...	26.3	315.8	26.3	
Tavoy	89	56.2 11.24	11.2	...	22.5	134.8 33.71	11.2	
Moulmein	473	...	...	...	8.4 2.11	94.7	10.5	6.3	23.2 8.42	8.4	35.8 2.11	338.9 4.21	578.9	...	...	2.1	223.2	...	1,570.5 21.05	56.8
Shwegyin	144	...	...	...	...	97.2	...	...	13.9 13.89	...	6.9	41.7	6.9	...	...	...	69.4	...	312.5 13.89	20.8
Toungoo	386	...	...	...	...	93.3	...	...	7.8 2.59	7.8	10.4	13.0	13.0	...	...	2.6	95.9	...	409.3 5.18	13.0
Rangoon Central, (Europeans).	15	66.7	383.3	10.6	
Rangoon Central, (natives).	2,095	...	...	...	...	178.5 '48	5.3 '48	18.1	9.1 8.11	2.9 '48	7.6 '48	43.4 '05	31.0	...	26.3 '95	3.3	112.2	5	731.3 19.09	45.8
Maubin	367	...	...	...	...	62.7	...	...	3.4 2.72	...	2.7	16.3	13.6	...	...	2.7 2.72	57.2	...	204.3 8.17	10.9
Myaengmyo	313	...	...	...	...	632.6	95.8 3.19	...	3.2	3.2	9.6	86.3	95.8	...	3.2	6.4	232.4	...	1,380.2 3.19	31.9
Bassein Central	975	...	1.0 1.03	...	...	54.4	...	23.6	3.1	2.1	4.1	33.8 2.05	8.2	...	...	3.1	33.8	...	288.2 4.10	22.6
Insein, Central	1,796	...	11.1 6.68	...	2.2	135.3	...	...	10.6 2.23	...	5.0	44.0 3.90	10.6	...	...	1.7 '56	39.5	...	363.0 16.70	13.4
Henzada	484	...	2.1	...	...	93.0	...	...	4.1 4.13	...	2.1	...	18.6	...	...	10.3	88.8	...	260.3 12.40	8.3
Myanaung	73	...	...	...	...	27.4	...	...	13.7 13.70	...	...	27.4	82.2	...	...	...	260.3	...	575.3 13.70	27.4
Sandoway	70	...	...	...	...	71.4	...	...	14.3 14.29	...	...	57.1	14.3	...	14.3	44.9	142.9	...	525.6 28.57	14.3
Kyaukpyu	116	...	...	...	...	482.8	...	...	8.6 8.62	...	17.2	112.1	51.7	...	...	...	120.7	...	1,034.5 25.86	43.1
Akyab	326	...	...	...	...	150.3	3.1	...	...	6.1	...	122.7	45.0	...	...	27.6	104.3	...	779.1 21.47	27.6
GROUP I.— BURMA COAST AND BAY ISLANDS	19,043	2.7	1.1 '65	...	4 '03	623.3 '20	15.4 1.86	3.4	9.9 5.72	9.0 2.71	38.1 '70	123.6 8.22	52.9 1.25	...	1 '05	3.8 '15	4.2 '15	104.1 '05	1 '02	1,257.0 28.28	41.6	
Paungdi	126	...	31.7 31.75	...	...	158.7	...	15.9	15.9 15.87	7.9 7.94	7.9	39.7	31.7	...	...	7.9	23.8	...	432.4 63.49	15.9
Prome	321	...	...	...	...	37.4	...	...	6.2	...	9.3	53.0 9.35	15.6	...	...	...	53.0	...	389.4 12.46	21.8
Thayetmyo Central	906	...	...	...	...	30.9	...	3.3	17.7 4.42	14.3	2.2	37.5 1.10	1.1	...	...	15.3	28.7	...	360.7 11.04	25.4
Taungdwingyi	80	...	...	...	...	...	...	...	...	...	...	12.5	...	...	...	...	...	...	37.5	1.6
Magwe	95	...	...	...	...	...	...	10.5	...	...	...	...	10.5	...	...	...	10.5	...	31.6 10.53	1.1
Minbu	96	...	...	...	...	145.8	...	...	31.2 20.83	10.4 10.42	10.4	72.9 10.42	104.2	...	...	...	31.2	...	479.2 52.08	20.8
Yamethin	112	...	...	...	...	62.5	...	...	...	8.9 8.93	...	...	...	...	...	...	44.6	...	258.9 35.71	8.9
Meiktila	184	...	...	...	...	141.3	...	...	...	5.4 5.43	5.4	54.3	16.3	...	...	...	27.2	...	375.0 16.30	16.3
Pagan	73	...	...	...	...	82.2	...	...	...	...	...	...	13.7	...	...	...	95.9	...	205.5	13.7
Fakókkú	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29.4	...	102.9	14.7
Myingyan Central	819	...	...	...	...	89.1	...	...	12.2 6.11	12.2 2.44	22.0	36.6	13.9	...	...	...	44.0	...	329.7 13.43	17.1
Mandalay Central	784	...	...	...	1.3	404.3	...	...	17.9 5.10	5.1 1.28	25.5 1.28	89.3 2.55	67.6 1.28	...	1.3	3.8	2.6	...	721.9 16.58	30.6
Monywa	90	...	...	...	...	11.1	...	...	...	...	...	11.1	11.1	...	...	11.1	88.9	...	222.2	22.2
Shwebo	126	...	...	...	7.9 7.94	127.0	55.6	7.9	15.9	71.4 26.0	31.7 26.0	79.4 389.6	47.6 116.9	...	...	...	246.0	...	857.1 7.9	31.7
Bhamo	77	...	...	...	...	181.8	...	...	...	25.97	...	12.99	...	...	...	...	13.0	194.8	1,285.7 51.9	64.9
Katha	80	...	...	...	...	100.0	...	...	...	12.5 12.50	12.5	25.0	50.0	...	...	...	37.5	...	300.0 25.00	12.5
Kindat	41	...	...	...	...	...	...	...	24.4	...	24.4	97.6	...	...	...	...	97.6	...	292.7 24.39	24.4
GROUP II.— BURMA IN- LAND.	4,078	...	1.0 '08	...	3 '25	132.9	1.7	1.7	12.5 4.17	10.5 2.45	13.2 '25	54.2 2.21	27.2 '40	...	2 '25	2 '25	4.9	41.2	...	480.9 16.43	22.3	

* Worked on the aggregates.

PRISONERS, 1901.

TABLE XLII—continued.

RATIOS OF FAILS, GROUPS, and ADMINISTRATIONS. For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE PER 1,000 OF STRENGTH.										Average number 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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Foul.	Fistula, Sore, and Gangrene.	ALL CAUSES.		
Cachar	65	...	15'4 15'38	...	...	276'9	30'8 15'38	...	...	15'4	18'46 15'38	92'3	...	...	...	...	61'5	...	723'1 40'15	30'8
Sibsagar	60	...	...	...	...	266'7	...	116'7	...	33'3	166'7	66'7	...	...	...	50'0	...	...	850'0	30'0
Dibrugarh	103	...	...	...	...	310'7	...	19'4	9'7	38'3	135'9	165'0	...	...	...	9'7	97'1	...	1,048'5	38'8
Tezpur	254	...	...	3'9	...	212'6 7'87	...	...	...	3'9	11'8	232'3 7'87	78'7	...	...	3'9	3'9	31'5	641'7 31'50	35'4
Nowgong	52	...	...	...	...	269'2	...	...	...	134'6	288'5	76'9	...	...	...	192'3	38'5	19'2	1,576'9	57'7
Gauhati	200	...	...	...	...	405'0	5'0 5'00	...	...	5'0	16'0	340'0 15'00	60'0	...	...	10'0	60'0	...	1,035'0 30'00	40'0
Dhubri	28	...	...	...	...	285'7	...	...	35'7	...	35'7	142'9	...	...	...	...	35'7	...	785'7	35'7
Sylhet	546	148'4	...	...	...	483'5 1'83	7'3 3'60	3'7	1'8	1'8	27'5 1'83	289'4 5'40	56'8	...	...	5'5	42'1 7'33	27'5	1,219'8 37'97	53'1
GROUP III.— ASSAM.	1,308	61'9	'8 7'6	'8	...	372'3 2'29	5'4 3'00	8'4	2'3	2'3	28'3 7'6	259'9 6'12	71'9 7'06	...	...	3'1	30'6 3'82	30'8	1,029'1 20'76	45'1
Mymensingh.	576	...	...	...	...	260'4	1'7 1'74	...	13'9 5'21	8'7 3'47	22'6 1'74	51'56 19'10	79'9 3'47	...	...	1'7	30'9	...	1,254'2 41'67	53'8
Dacca Central	1,047	...	...	...	...	183'4	1'0	13'4	10'5 4'78	5'7 1'91	25'8	281'8 3'82	135'6	...	...	22'9	32'5	...	977'1 14'33	43'7
Tippera	334	...	...	3'0	...	41'9	...	155'7	6'0 2'99	9'0	12'0	119'8 2'99	44'9	...	...	21'0	20'9	29'9	640'7 11'98	18'0
Chittagong	182	...	...	...	...	807'7	...	...	16'5 5'49	11'0 10'99	44'0	639'3 5'49	181'3 5'49	...	...	33'0	16'5	76'9	1,990'0 32'97	54'9
Noakhali	148	...	...	...	...	425'7	...	...	...	13'5	20'3	547'3 33'72	81'1	...	...	20'3	6'8	...	1,256'8 40'54	40'5
Backergunge	546	208'8 1'83	...	1'8 1'83	...	225'3 3'66	1'8	...	12'8 10'99	9'2 7'33	49'5 2'66	399'3 34'80	250'1	...	...	11'8 1'83	5'5	29'3	1,478'0 80'59	84'2
Khulna.	34	...	...	...	...	794'1	...	88'2	...	...	58'8	323'5 29'41	105'9	...	...	...	...	...	1,882'4 29'41	58'8
Jessore.	371	...	...	...	...	242'6	10'8 2'70	132'1	...	8'1 2'70	16'2	641'5 10'78	51'2 2'70	...	...	...	40'4	...	1,490'6 24'26	37'7
Baraset.	97	...	...	...	...	1,051'5	20'6	...	...	...	...	1,010'3	288'7	...	...	...	10'3	134'0	2,855'7	72' 2
Presidency, Central (Europeans).	35	...	28'6 28'57	...	...	142'9	28'6	...	...	...	...	114'3	28'6	...	...	...	28'6	57'1	600'0 28'57	28'6
Presidency, Central (natives).	1,287	20'2	...	...	...	115'8 1'55	'8	...	13'2 3'11	17'5 1'55	10'9 7'8	165'5 5'44	17'1	...	...	...	4'7	7'0	474'0 17'09	23'3
Alipore Central	1,900	...	...	'5 '5	...	168'9 2'11	1'6	206'3	17'9 6'82	11'6 2'63	52'1	105'8 1'05	65'8	...	...	'5	8'9	52'1	987'9 17'89	33'2
Hooghly	283	...	26'1 5'22	...	...	211'5	...	...	10'4 5'22	2'6	33'9	1,031'3 5'22	757'2 5'22	...	10'4	...	36'6 5'22	112'3	2,644'9 78'33	91'4
Burdwan	233	...	...	...	...	660'9	8'6 4'29	...	8'6 4'29	21'5 4'29	51'5	536'5 12'88	309'0	...	...	8'6	4'3	...	2,107'3 38'63	64'4
Krishnagar	192	...	...	...	...	166'7	...	...	...	...	10'4	302'1 10'42	5'2	...	...	...	5'2	20'8	562'5 26'04	20'8
Faridpur	361	55'4 2'77	...	...	...	720'2 2'77	...	...	13'9	5'5	38'8	617'7 8'31	279'8	...	...	...	47'1	36'0	2,019'4 16'62	97'0
Pabna	224	...	49'1	...	...	325'9	8'9 4'46	...	...	13'4 4'46	22'3	589'3 8'93	62'5	...	...	...	4'5	17'9	1,424'1 17'86	44'6
Murshidabad	256	...	19'5	...	...	273'4	43'0	35'2	3'9	3'9	35'2	168'0	31'5	...	...	...	11'7	58'6	1,140'6 7'81	35'2
Rajshahi Central	808	...	154'7	...	...	556'9	1'2	...	8'7 3'71	2'5 2'48	29'7	122'5 2'48	18'6 1'24	...	...	6'2	7'4	90'3	1,731'4 13'01	43'3
Bogra	150	...	...	6'7 6'07	...	113'3	...	...	...	6'7 6'67	13'3	213'3	66'7 6'67	...	...	...	6'7	6'7	466'7 20'09	13'3
Malda	100	...	...	...	...	810'0	...	40'0	...	10'0	20'0	50'0 10'00	100'0	...	...	10'0	...	50'0	1,120'0 10'00	30'0
Dinajpur	251	...	...	...	...	358'6 3'98	4'0 3'98	...	8'0	4'0	35'9	67'7	19'9	...	...	...	...	19'9	609'6 19'92	19'9
Rangpur	247	...	...	...	...	400'8 4'05	4'1	12'1	4'1	8'1	72'9	485'8 24'29	226'7	...	...	...	52'6	32'4	1,574'9 44'53	81'4

JAILS.	Average annual strength.	1. ADMISSION-RATE.											2. DEATH-RATE PER 1,000 OF STRENGTH.											Average number 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.	Diarrhoea.	Hepatic Abscess.	Spleen Disease.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.				
Jalpaiguri	95	...	...	...	...	77 ⁰ / ₈ 10 ⁴ / ₂	...	...	41 ⁷ / ₁₀ 10 ⁴ / ₂	41 ⁷ / ₁₀ 20 ³ / ₃	104 ² / ₁₀ 10 ⁴ / ₂	52 ¹ / ₁₀ 10 ⁴ / ₂	41 ⁷ / ₁₀ ...	...	...	...	31 ² / ₁₀ ...	...	1,354 ² / ₅₂ 52 ⁰ / ₈	52 ¹ / ₁₀
Purneah	173	...	...	...	...	265 ⁹ / ₅₇₈	...	...	...	...	34 ⁷ / ₅₇₈	156 ¹ / ₅₇₈	11 ⁶ / ₅₇₈	...	...	63 ⁶ / ₅₇₈	11 ⁶ / ₅₇₈	...	664 ⁷ / ₂₃₁₂	28 ⁹ / ₁₀
Naya Dumka	113	...	...	...	...	230 ¹ / _{...}	53 ¹ / _{...}	256 ⁶ / _{...}	8 ⁸ / _{...}	35 ⁴ / _{...}	...	637 ² / ₈₈₃	17 ⁷ / ₁₀				
Suri	236	80 ⁵ / _{...}	161 ⁰ / _{...}	8 ⁵ / _{8⁴/₇}	4 ² / _{...}	29 ⁷ / _{...}	105 ⁹ / _{...}	63 ⁶ / _{...}	8 ⁵ / _{...}	...	516 ⁹ / _{8⁴/₇}	25 ⁴ / ₁₀				
Bankura	265	...	...	3 ⁸ / _{...}	...	249 ¹ / _{...}	26 ⁴ / _{11³/₂}	3 ⁸ / _{3⁷/₇}	37 ⁷ / _{...}	162 ³ / _{3⁷/₇}	52 ⁸ / _{3⁷/₇}	3 ⁸ / _{...}	...	7 ⁵ / _{...}	22 ⁶ / _{...}	...	728 ³ / _{16⁴/₃}	37 ⁷ / ₁₀		
Midnapore Central }	1,175	32 ³ / _{...}	277 ⁴ / ₈₃	...	...	17 ⁰ / _{1⁷/₀}	13 ⁶ / _{2⁵/₅}	22 ¹ / _{1⁷/₀}	232 ³ / _{19⁵/₇}	69 ⁸ / _{2⁵/₅}	9 ⁰ / _{...}	...	1 ⁷ / _{...}	31 ⁵ / _{...}	...	850 ² / _{35⁶/₀}	33 ² / ₁₀			
Balasore	144	...	...	...	...	166 ⁷ / _{...}	6 ⁹ / _{...}	20 ⁸ / _{...}	97 ² / _{6⁹/₄}	41 ⁷ / _{13⁸/₉}	...	...	6 ⁹ / _{...}	48 ⁶ / _{...}	...	604 ² / _{27⁷/₈}	13 ⁹ / ₁₀			
Cuttack	315	...	3 ² / _{...} 3 ¹ / ₇	...	...	419 ⁰ / _{...}	3 ² / _{3¹/₇}	...	6 ³ / _{6³/₅}	19 ⁰ / _{...}	6 ³ / _{...}	171 ⁴ / _{9⁵/₂}	120 ⁶ / _{...}	28 ⁶ / _{...}	82 ⁵ / _{...}	...	1,104 ⁸ / _{31⁷/₅}	28 ⁶ / ₁₀		
Puri	111	...	18 ⁰ / _{9⁰/₁}	...	...	51 ⁵ / _{...}	9 ⁰ / _{...}	9 ⁰ / _{...}	207 ² / _{9⁰/₁}	18 ⁰ / _{...}	27 ⁰ / _{...}	54 ¹ / _{...}	...	964 ⁰ / _{54⁰/₅}	18 ⁰ / ₁₀				
Angul	77	...	...	...	...	415 ⁶ / _{...}	194 ⁸ / _{12⁹/₉}	77 ⁹ / _{...}	1,013 ⁰ / _{2⁵/₉}	51 ⁹ / ₁₀				
GROUP IV.— BENGAL AND ORISSA. }	12,467	28 ⁷ / ₁₆	1 ¹ / ₄₀	4 ¹ / ₁₆	...	289 ⁶ / _{1²/₈}	3 ¹ / ₄₈	42 ² / _{...}	11 ¹ / _{4⁰/₁}	9 ⁴ / _{2⁴/₉}	30 ³ / _{9⁶/₀}	300 ³ / _{10¹/₁}	107 ⁸ / _{1⁰/₄}	2 ¹ / ₁₆	1 ⁵ / _{...}	1 ³ / _{0⁸}	12 ⁵ / ₂₄	42 ⁴ / _{...}	1,131 ⁰ / _{27⁰/₃}	42 ⁰ / ₁₀				
A.																								
Chaibassa	162	...	...	...	...	345 ⁷ / _{...}	55 ⁶ / _{...}	...	6 ² / _{6¹/₇}	12 ³ / _{6¹/₇}	18 ⁵ / _{...}	444 ⁴ / _{...}	49 ⁴ / _{...}	30 ⁹ / _{...}	...	1,142 ⁰ / _{18⁵/₂}	30 ⁹ / ₁₀			
Purulia	223	...	...	4 ⁵ / _{...}	...	251 ¹ / _{...}	17 ⁹ / _{17⁹/₄}	4 ⁵ / _{...}	22 ⁴ / _{...}	67 ³ / _{13⁴/₅}	35 ⁹ / _{...}	9 ⁰ / _{...}	31 ⁴ / _{...}	...	511 ² / _{31³/₉}	13 ⁵ / ₁₀				
Ranchi	164	...	...	...	...	85 ⁴ / _{...}	170 ⁷ / _{...}	...	18 ³ / _{...}	12 ² / _{6¹/₀}	18 ³ / _{...}	24 ⁴ / _{6¹/₀}	164 ⁶ / _{...}	6 ¹ / _{...}	79 ³ / _{...}	...	759 ¹ / _{18²/₉}	24 ⁴ / ₁₀		
Palamau	99	80 ⁸ / _{...}	101 ⁰ / _{...}	555 ⁶ / _{...}	101 ⁰ / _{...}	30 ³ / _{...}	...	10 ¹ / _{...}	90 ⁹ / _{...}	...	1,101 ⁰ / _{10¹/₀}	40 ⁴ / ₁₀				
Hazaribagh Central }	1,091	41 ² / _{...}	...	9 ⁰ / ₉₂	...	287 ⁸ / _{2⁷/₅}	1 ⁸ / _{...}	...	6 ⁴ / _{2⁷/₅}	20 ² / _{2⁷/₅}	30 ² / _{1⁸/₃}	182 ⁴ / _{4³/₈}	101 ⁷ / _{1⁸/₃}	...	...	6 ⁴ / _{...}	72 ⁴ / _{...}	...	933 ¹ / _{23⁸/₃}	25 ⁷ / ₁₀		
B.																								
Gaya	523	...	...	...	...	340 ³ / _{7⁶/₅}	...	...	3 ⁸ / _{...}	25 ⁸ / _{9⁵/₅}	7 ⁶ / _{...}	344 ² / _{13³/₈}	68 ⁸ / _{7⁶/₅}	...	1 ⁹ / _{...}	3 ⁸ / _{...}	26 ⁸ / _{...}	...	977 ¹ / _{45⁸/₉}	24 ⁹ / ₁₀
Bhagalpur Central }	1,816	60 ⁶ / _{1¹/₀}	...	...	...	106 ⁸ / _{...}	10 ⁵ / _{4⁹/₀}	19 ⁸ / _{3⁸/₅}	41 ³ / _{...}	147 ⁰ / _{4⁴/₁}	66 ⁶ / _{...}	6 ¹ / _{3⁵}	19 ⁸ / _{5⁵}	6 ¹ / _{5⁵}	665 ² / _{35²/₄}	40 ⁷ / ₁₀				
Monghyr	263	159 ⁷ / _{...}	19 ⁹ / _{11⁴/₁}	...	...	387 ⁸ / _{...}	3 ⁸ / _{...}	...	7 ⁶ / _{3⁸/₀}	3 ⁸ / _{...}	30 ⁴ / _{...}	292 ⁸ / _{11⁴/₁}	205 ³ / _{...}	11 ⁴ / _{...}	38 ⁰ / _{...}	...	1,330 ⁸ / _{45⁶/₃}	38 ⁰ / ₁₀		
Darbhanga	299	...	...	...	...	153 ⁸ / _{...}	3 ³ / _{...}	36 ⁸ / _{...}	137 ¹ / _{...}	127 ¹ / _{...}	13 ⁴ / _{...}	53 ⁵ / _{...}	...	715 ⁷ / _{...}	33 ⁴ / ₁₀				
Champaran	347	20 ² / _{...}	95 ¹ / _{...}	...	5 ⁸ / _{...}	2 ⁹ / _{...}	11 ⁵ / _{...}	23 ¹ / _{...}	166 ⁶ / _{11⁵/₃}	57 ⁶ / _{2⁸/₈}	...	...	5 ⁸ / _{...}	23 ¹ / _{...}	...	458 ⁰ / _{25⁹/₄}	17 ³ / ₁₀			
Muzaffarpur	366	62 ⁸ / _{2⁷/₃}	5 ⁵ / _{2⁷/₃}	...	...	215 ⁸ / _{...}	8 ² / _{...}	...	5 ⁵ / _{5⁴/₆}	2 ⁷ / _{2⁷/₃}	16 ⁴ / _{...}	76 ⁵ / _{2⁷/₃}	136 ⁶ / _{...}	5 ⁵ / _{...}	24 ⁶ / _{...}	...	754 ² / _{32⁷/₉}	38 ³ / ₁₀		
Patna	386	...	33 ⁷ / _{20⁷/₃}	...	...	279 ⁸ / _{5¹/₈}	10 ⁴ / _{...}	...	10 ⁴ / _{5¹/₈}	5 ² / _{...}	33 ⁷ / _{...}	106 ² / _{5¹/₈}	196 ⁰ / _{2⁵/₉}	...	...	13 ⁰ / _{2⁵/₉}	41 ⁵ / _{...}	...	953 ⁴ / _{67³/₆}	36 ³ / ₁₀
Arrah	252	...	...	...	...	95 ² / _{3⁹/₇}	4 ⁰ / _{3⁹/₇}	103 ² / _{...}	...	23 ⁸ / _{3⁹/₇}	39 ⁷ / _{...}	238 ¹ / _{3⁹/₇}	71 ⁴ / _{3⁹/₇}	...	...	11 ⁹ / _{...}	63 ⁵ / _{...}	...	845 ² / _{23⁸/₁}	23 ⁸ / ₁₀
Chapra	319	9 ⁴ / _{...}	3 ¹ / _{3¹/₃}	...	...	216 ³ / _{3¹/₃}	...	...	6 ³ / _{3¹/₃}	37 ⁶ / _{3¹/₃}	376 ² / _{6²/₇}	65 ⁸ / _{...}	6 ³ / _{...}	43 ⁹ / _{...}	...	1,006 ³ / _{21⁹/₄}	40 ⁸ / ₁₀			
Buxar Central }	1,288	...	...	...	...	1,215 ¹ / _{3⁸/₈}	...	...	4 ⁷ / _{2³/₃}	17 ¹ / _{4⁶/₆}	41 ¹ / _{...}	215 ¹ / _{7⁸}	111 ⁰ / _{...}	5 ⁴ / _{7⁸}	113 ⁴ / _{...}	...	2,007 ⁰ / _{13⁹/₈}	49 ⁷ / ₁₀		
Korantadih	73	...	...	...	...	178 ¹ / _{...}	13 ⁷ / _{...}	27 ⁴ / _{...}	68 ⁵ / _{13⁷/₀}	27 ⁴ / _{...}	27 ⁴ / _{...}	...	671 ² / _{13⁷/₀}	27 ⁴ / ₁₀				
Ghaziipur	523	...	...	...	...	128 ¹ / _{5⁷/₄}	...	3 ⁸ / _{...}	17 ² / _{1⁹/₁}	15 ³ / _{9⁵/₆}	21 ⁰ / _{...}	30 ⁶ / _{9⁵/₆}	74 ⁶ / _{...}	...	372 ⁸ / _{36³/₃}	22 ⁹ / ₁₀				
Azamgarh	348	2 ⁹ / _{...}	201 ¹ / _{5⁷/₅}	...	...	8 ⁶ / _{2⁸/₇}	23 ⁰ / _{2⁸/₇}	77 ⁶ / _{2⁸/₇}	60 ³ / _{...}	54 ⁶ / _{2⁸/₇}	...	...	89 ¹ / _{...}	212 ⁶ / _{...}	...	1,014 ⁴ / _{17²/₄}	46 ⁰ / ₁₀			
Kasia	38	...	...	...	...	289 ⁵ / _{...}	26 ³ / _{26³/₂}	...	...	...	...	78 ⁰ / _{...}	26 ³ / _{...}	78 ⁹ / _{...}	78 ⁹ / _{...}	...	1,000 ⁰ / _{26³/₂}	32 ⁶ / ₁₀		
Gorakhpur	498	...	...	...	...	132 ⁵ / _{2⁰/₁}	...	...	4 ⁰ / _{2⁰/₁}	4 ⁰ / _{4⁰/₂}	8 ⁰ / _{4⁰/₂}	28 ¹ / _{4⁰/₂}	8 ⁰ / _{2⁰/₁}	2 ⁰ / _{...}	...	46 ² / _{4⁰/₂}	106 ⁴ / _{...}	...	548 ² / _{20⁶/₈}	26 ¹ / ₁₀
Basti	424	...	...	...	...	68 ⁴ / _{2³/₆}	...	...	9 ⁴ / _{2³/₆}	11 ⁸ / _{2³/₆}	35 ⁴ / _{2³/₆}	2 ⁴ / _{2³/₆}	...	...	...	4 ⁷ / _{2³/₆}	40 ¹ / _{...}	...	273 ⁶ / _{25⁹/₄}	14 ² / ₁₀
Fyzabad	561	55 ¹ / _{1⁷/₈}	...	...	...	279 ⁹ / _{1⁷/₈}	...	...	3 ⁶ / _{1⁷/₈}	10 ⁶ / _{3⁵/₇}	62 ⁴ / _{1⁷/₈}	44 ⁶ / _{1⁷/₈}	53 ⁵ / _{...}	12 ⁵ / _{...}	...	71 ³ / _{1⁷/₈}	110 ⁵ / _{...}	...	1,203 ⁸ / _{21³/₉}	53 ⁵ / ₁₀
Sultanpur	346	...	...	...	...	358 ⁴ / _{...}	2 ⁹ / _{...}	8 ⁷ / _{...}	11 ⁶ / _{...}	20 ² / _{...}	31 ⁸ / _{...}	52 ⁰ / _{...}	...	841 ⁰ / _{28⁹/₀}	34 ⁷ / ₁₀				
Rai Bareilly	595	13 ⁴ / _{...}	97 ⁵ / _{...}	6 ⁷ / _{3³/₆}	5 ⁰ /<														

PRISONERS, 1901.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE PER 1,000 OF STRENGTH.										Average number 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.	Diarrhea.	Hepatic Abscess.	Spleen Diseases.	Scorvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Partabgarh	323	27.9	...	...	...	68.1	...	...	6.2	6.2	15.5	...	9.3	...	...	31.0	74.3	...	405.6	12.4
Jaunpur	322	...	...	...	...	146.0	...	...	3.1	3.1	40.4	28.0	...	9.3	...	9.3	121.1	...	524.9	24.8
Benares Central	2,038	...	...	...	...	106.3	...	...	10.8	3.0	11.8	53.0	35.3	...	...	2.5	96.2	...	582.9	28.5
Benares District	520	...	...	...	...	142.6	...	...	13.3	1.9	10.0	47.5	24.7	...	...	...	87.5	...	465.8	22.8
Mirzapur	205	...	...	...	...	341.5	...	9.8	4.9	9.8	34.1	48.8	58.5	...	9.8	4.9	190.2	...	1,009.8	48.8
Allahabad Central	2,106	...	5.47	...	...	230.3	...	...	11.9	3.8	26.6	61.7	69.8	...	...	7.1	215.1	...	849.0	45.1
Allahabad District	735	98.0	...	...	...	229.9	...	...	2.7	28.6	28.6	55.8	21.8	...	...	28.6	182.3	...	1,055.8	39.5
Karwi	26	...	...	...	...	38.5	...	...	...	...	...	...	...	...	...	...	...	...	115.4	1.8
Banda	258	...	...	...	...	666.7	...	...	23.3	65.9	147.3	19.4	...	...	...	15.5	174.4	...	1,434.1	38.8
Fatehpur	319	121.6	...	...	...	270.5	...	...	36.5	30.4	194.5	27.4	...	...	...	27.4	112.5	...	1,094.2	36.5
Hamirpur	150	13.3	...	...	...	806.7	...	40.0	13.3	...	26.7	13.3	20.0	...	...	20.0	286.7	...	1,573.3	53.3
Orai	143	230.8	...	...	...	685.3	...	...	14.0	35.0	55.9	14.0	76.9	...	35.0	7.0	167.8	...	1,643.4	62.9
Cawnpore	378	349.2	2.65	...	...	161.4	...	...	7.9	29.1	21.2	15.9	66.1	...	37.0	13.2	277.8	...	1,568.8	84.7
Unao	301	...	...	...	...	53.2	...	93.0	6.6	...	16.6	33.2	13.3	...	3.3	6.6	59.8	...	471.8	19.9
Lucknow Central	1,690	108.9	24.3	15.98	...	141.4	...	6	15.4	7.1	10.1	109.5	41.4	...	...	2.4	68.0	...	672.8	30.2
Lucknow District	567	81.1	3.5	3.53	...	116.4	...	...	8.8	3.5	12.3	75.8	38.8	...	1.8	8.8	89.9	...	636.7	26.5
Barabanki	413	...	2.4	150.1	...	31.8	2.4	4.8	9.7	21.8	26.6	2.4	16.9	142.9	...	694.9	24.2	
Gonda	498	...	...	...	...	323.3	...	...	2.0	2.0	30.1	64.3	30.1	...	6.0	32.1	72.3	...	740.0	42.2
Bahraich	390	...	...	...	...	389.7	2.6	...	7.7	12.8	15.4	51.3	41.0	2.6	...	10.3	164.1	...	1,007.7	56.4
Kheri	321	...	...	...	...	193.1	...	...	3.1	24.9	15.6	37.4	15.6	...	...	9.3	230.5	...	685.4	31.2
Sitapur	664	102.4	...	...	...	49.7	1.5	...	4.5	16.6	13.6	13.6	6.0	...	...	6.0	31.6	...	337.3	13.6
Hardoi	420	107.1	...	...	...	190.5	...	21.4	2.4	9.5	4.8	35.7	28.6	...	...	2.4	92.9	...	645.2	19.0
Etawah	249	...	...	...	...	321.3	...	...	12.0	16.1	40.2	48.2	12.0	...	...	16.1	88.4	...	855.4	36.1
Mainpuri	387	...	...	...	...	268.7	5.2	...	...	10.3	33.6	72.4	93.0	2.6	...	5.2	147.3	...	891.5	46.5
Etah	316	101.3	...	...	...	670.9	...	...	9.5	15.8	57.0	69.6	75.9	...	...	433.5	212.0	...	1,090.3	79.1
Fatehgarh Central	1,989	129.7	...	...	3.5	198.1	...	...	20.1	11.6	61.3	58.8	23.6	...	...	1.5	96.5	...	936.7	49.3
Fatehgarh District	405	36.4	2.5	2.45	...	174.0	...	...	2.5	2.5	14.7	9.8	33.9	58.8	...	7.4	76.0	...	580.9	19.6
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	27,136	45.0	2.5	1.62	...	257.2	1.0	4.3	8.1	11.5	27.7	93.9	52.9	...	1.5	16.2	101.7	...	849.7	36.2		
A.																						
Shahjahanpur	319	...	...	...	...	774.3	...	...	...	6.3	112.9	116.0	72.1	...	...	...	69.0	...	1,413.8	31.3
Bareilly Central	2,123	101.3	...	...	...	135.7	...	...	8.5	4.2	39.6	5.2	10.3	...	...	65.0	53.7	...	571.8	35.3
Bareilly District	763	347.3	1.3	1.3	...	623.9	...	...	16.7	5.2	27.5	168.8	35.4	...	...	6.6	52.4	1.3	1,385.8	47.2

JAILS.	Average annual strength.	1. ADMISSION-RATE.										2. DEATH-RATE PER 1,000 OF STRENGTH.										Average number 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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Budaon.	333	42'0	...	...	...	177'2	...	...	6'0	...	6'0	27'0	9'0	...	...	12'0	96'1	...	408'5	12'01	15'0
Migash.	455	72'5	...	...	...	219'8	...	...	2'2	52'7	24'2	26'4	48'4	...	...	4'4	59'3	...	723'1	13'19	37'4
Jalandshahr.	268	...	...	...	...	328'4	...	...	18'7	29'9	41'0	14'9	...	...	...	22'4	160'4	...	903'0	14'93	41'0
Moradabad.	376	...	2'7	...	2'7	356'4	23'9	...	2'7	8'0	39'9	117'0	10'6	...	...	5'3	61'2	...	808'5	35'85	47'9
Bijnor.	282	...	...	...	...	170'3	...	124'1	...	21'3	3'3	14'2	42'6	...	...	10'6	95'7	...	663'1	10'64	21'3
Dehra Dun.	66	...	...	...	...	212'1	...	...	30'3	30'3	15'2	15'2	15'2	...	...	45'5	15'2	...	590'9	15'15	60'6
Saharanpur.	310	19'4	...	...	...	248'4	...	...	...	29'0	16'1	77'4	35'5	...	...	12'9	106'5	...	780'6	29'03	38'7
Muzaffarnagar.	203	98'5	...	...	...	512'3	...	...	24'6	9'9	9'9	19'7	4'9	...	...	9'9	54'2	...	871'9	19'70	34'5
Deerut.	619	116'3	1'0	...	...	521'8	...	...	11'3	4'8	32'3	72'7	59'8	...	...	3'2	72'7	...	1,113'1	9'69	30'7
Delhi.	488	...	...	...	2'0	702'9	...	...	18'4	45'1	8'2	77'9	65'6	...	...	4'1	69'7	...	1,082'0	30'39	24'6
Rohatak.	194	41'2	...	...	...	1,752'6	...	...	5'2	30'9	25'8	97'9	10'3	...	20'6	...	232'0	...	2,654'6	30'93	61'9
Hissar.	164	420'7	12'2	18'3	36'6	6'1	42'7	24'4	103'7	...	811'0	24'39	18'3
Karnal.	102	...	...	...	...	333'3	...	...	...	78'4	98'0	107'8	68'6	...	...	...	156'9	...	1,088'2	68'63	29'4
Umballa.	743	...	...	...	...	666'2	...	...	4'0	36'3	18'8	94'2	109'0	...	1'3	2'7	68'6	...	1,179'0	30'34	33'6
B.																						
Ludhiana.	254	...	...	...	...	374'0	...	...	7'9	11'8	23'6	110'2	31'5	...	...	19'7	59'1	...	826'8	39'37	23'6
Hoshiarpur.	49	...	...	...	...	387'8	...	...	...	...	20'4	142'9	81'6	...	...	...	285'7	...	1,326'5	...	40'8
Jullundur.	236	...	...	4'2	33'9	33'9	152'5	4'2	...	12'7	46'6	38'1	...	12'7	...	...	97'5	...	572'0	4'24	12'7
Ferozepore.	387	...	...	...	...	527'1	...	...	5'2	28'4	23'3	28'4	38'8	...	...	20'7	139'5	...	1,020'7	54'26	28'4
Amritsar.	182	...	...	...	...	994'5	5'3	...	...	38'5	153'8	93'4	...	5'5	49'5	175'8	5'5	1,807'7	43'96	49'5	
Lahore Central.	1,471	...	...	2'7	1,270'6	1'4	...	16'3	12'9	156'4	138'7	254'5	...	7	8'8	246'1	...	2,515'3	27'19	62'5	
„ District.	507	...	...	...	...	721'9	...	...	9'9	31'6	35'5	138'1	120'3	...	...	...	107'2	...	1,306'4	31'56	47'3
„ Female.	182	...	...	...	...	445'1	...	...	22'0	16'5	14'0	98'9	60'4	...	...	...	54'9	...	912'1	43'96	33'0
Gurdaspur.	181	...	...	...	...	193'4	...	...	11'0	22'1	11'0	27'6	22'1	...	...	5'5	93'9	...	696'1	5'52	22'1
Gojranwala.	342	...	...	...	...	216'4	...	...	2'9	8'8	29'2	2'9	43'9	...	...	26'3	70'2	...	500'0	8'77	17'5
Sialkot.	252	170'5	28'4	22'7	8'5	2'8	79'5	...	443'2	...	14'2
Gujrat.	97	...	...	...	...	113'4	...	...	10'3	10'3	10'3	20'6	41'2	...	...	10'3	30'9	...	474'2	30'03	20'6
Mung Rasul Central.	1,720	...	...	...	...	326'7	6	11'6	45'3	80'6	94'2	57'0	6	...	...	33'1	234'9	...	1,184'3	37'21	48'8
Jhelum.	208	...	...	...	...	1,230'8	...	...	...	24'0	14'4	105'8	43'3	...	...	4'8	91'3	...	1,596'2	...	28'8
Rawalpindi.	722	...	...	...	...	1,055'4	...	1'4	5'5	8'3	31'9	52'6	126'0	18'0	1'4	24'9	124'7	...	1,747'9	12'47	45'7
GROUP VI.— UPPER SON-HIMA- LAYA.	14,698	43'2	'1	'1	'4	532'2	1'6	4'9	8'8	19'3	48'9	70'7	68'6	'1	'4	'4	20'5	120'8	'1	1,163'8	24'70	38'6

PRISONERS, 1901.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS.	Average annual strength.	1. ADMISSION-RATE.							2. DEATH-RATE PER 1,000 OF STRENGTH.													Average number 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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Thana	891	...	...	...	1' 1'12	225'6	24'7	5'6	10'8	3'4	87'5	73'0	43'8	...	4'5	7'9	61'7	...	709'3	34'8
Bombay Common	472	...	...	...	...	150'4	25'4	110'2	6'4	14'8	14'8	44'5	8'5	...	10'1	8'5	...	...	559'3	19'4
Bombay House of Correction	436	...	...	...	...	383'0	6'9	...	9'2	16'1	22'9	34'4	36'7	...	2'3	6'9	22'9	...	772'9	20'6
Ratnagiri	172	69'8	...	...	...	34'9	17'4	...	...	...	17'4	98'8	5'8	...	...	11'6	11'6	...	354'7	29'1
Karwar	309	...	...	12'9	...	116'5	3'2	...	...	22'7	16'2	123'0	...	...	...	...	9'7	3'2	391'6	19'4
Mangalore	121	16'5	8'3	...	8'3	49'6	8'3	...	...	33'1	33'1	16'5	...	...	...	...	24'8	...	338'8	16'5
Cannanore Central	807	6'2	...	...	3'7	71'9	...	...	13'6	12'4	22'3	31'0	14'9	...	...	3'7	11'2	...	399'0	21'1
GROUP X.—WESTERN COAST.	3,208	5'9	3	1'2	1'6	169'9	13'1	17'8	10'3	11'8	39'0	57'0	22'4	...	1'6	7'5	26'8	...	554'2	24'6		
A.																						
Bellary	432	...	2'3	...	...	379'6	...	39'1	11'6	32'4	53'2	122'7	...	...	...	...	41'7	...	1,013'0	39'4
Salem Central	556	5'4	...	...	...	9'0	...	1'8	3'6	21'6	14'4	14'4	1'8	...	...	...	7'2	...	158'3	7'2
Coimbatore Central	1,245	100'2	...	...	...	98'0	8'0	103'6	17'7	2'4	23'3	51'4	5'6	...	1'6	4'0	36'1	...	645'8	30'5
B.																						
Palamcottah	405	...	29'6	...	...	14'8	...	61'7	7'4	7'4	39'5	111'1	...	...	...	7'4	2'5	...	481'5	19'8
Madura	355	...	129'6	...	...	95'8	...	19'7	5'6	11'3	5'6	163'4	...	...	...	...	39'4	2'8	769'0	31'0
Trichinopoly Central	1,133	20'3	3'5	...	...	210'1	2'6	22'9	26'5	4'4	22'9	22'9	...	...	...	6'2	37'1	...	787'3	30'9
Tanjore	340	...	...	...	...	35'3	...	20'6	...	...	2'9	44'1	...	...	...	...	26'5	...	323'5	23'5
Cuddalore	401	...	...	...	...	69'8	5'0	10'0	15'0	...	34'9	77'3	...	...	...	...	34'9	...	558'6	22'4
Vellore Central	1,370	...	10'9	...	...	13'9	...	108'0	8'0	12'4	14'6	59'1	...	...	...	6'6	35'0	...	536'5	21'9
Madras Civil	23	
Madras Penitentiary, Central.	1,139	...	2'6	...	...	108'9	...	3'5	16'7	6'1	16'7	34'2	...	...	...	3'5	42'1	...	387'2	15'8
Nellore	229	...	...	...	...	26'2	...	74'2	8'7	...	34'9	21'8	...	...	...	...	34'9	...	362'4	13'1
C.																						
Rajamendry Central.	1,111	...	...	...	...	488'7	...	...	7'2	3'6	33'3	143'1	...	...	...	8'1	13'5	...	882'1	29'7
Visagapatam	579	...	...	...	1'7	110'5	...	...	6'9	50'1	38'0	32'8	36'3	...	...	12'1	10'4	...	593'9	30'7
Berhampur	146	...	95'9	...	...	301'4	...	6'8	...	...	20'5	116'4	328'8	...	...	20'5	47'9	...	1,164'4	34'2
GROUP XI.—SOUTHERN INDIA.	9,464	17'1	10'0	...	1	148'9	1'6	40'4	12'0	10'4	24'1	65'5	8'0	...	...	5'0	29'5	...	610'5	25'0

JAILS.	Average annual strength.	1. ADMISSION-RATE.							2. DEATH-RATE, PER 1,000 OF STRENGTH.													Average number 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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.		
Shillong	30	233'3	...	...	...	66'7	...	...	...	...	133'3	100'0	...	...	...	33'3	33'3	...	700'0	33'3
Darjeeling	84	...	...	...	...	440'5	...	83'3	...	23'8	166'7	166'7	...	...	...	35'7	...	...	1,345'2	35'7
Almora	105	...	...	...	...	28'6	...	...	9'5	19'0	...	28'6	...	...	...	9'5	19'0	...	152'4	28'6
Pauri	10	...	...	...	...	700'0	...	...	...	300'0	200'0	300'0	...	...	...	...	...	100'0	2,800'0	100'0
Simla	17	...	...	...	...	176'5	...	...	...	...	...	58'8	...	...	...	117'6	...	...	588'2	13'7
Dharmala	72	...	...	...	...	319'4	...	...	...	27'8	27'8	41'7	27'8	...	...	41'7	138'9	...	861'1	27'8
Abbottabad	74	...	...	...	...	216'2	...	...	...	40'5	40'5	13'5	...	...	...	13'5	54'1	...	729'7	40'5
Quetta	75	106'7	...	...	...	586'7	...	...	...	53'3	26'7	160'0	...	...	...	...	200'0	...	1,733'3	26'7
Mercara	109	...	...	...	...	64'2	9'2	...	18'3	26'7	55'0	45'9	192'7	...	...	73'4	18'3	...	651'4	36'7
Russellkonda	64	...	62'5	...	...	156'3	...	...	...	...	46'9	140'6	31'3	...	...	...	140'6	...	850'4	31'3
GROUP XII—HILLS.	640	23'4	6'3	...	...	237'5	1'6	10'9	4'7	15'6	35'9	81'3	78'1	...	...	29'7	68'8	...	875'0	32'4
EXTRA INDIA—Aden	41	73'2	1'0*	
INDIA	117,203	25'4	1'8	'5	'3	377'3	4'7	10'9	8'8	14'2	33'8	108'0	55'8	'1	'1	14'5	85'0	'1	98'00	36'7		
ANDAMANS	12,183	4'4	...	...	...	926'2	21'3	...	10'8	13'1	57'5	163'6	50'2	...	...	1'5	3'9	112'0	1,683'3	50'6
BURMA	11,840	...	2'2	...	'8	142'7	4'6	6'3	9'9	5'1	9'5	58'6	47'0	...	'2	4'9	4'7	74'3	550'9	25'8		
ASSAM	1,338	65'8	'7	'7	...	365'5	5'2	8'2	2'2	2'2	27'7	257'1	72'5	...	...	3'0	30'6	39'6	1,021'7	44'8
BENGAL	20,149	29'6	1'7	'3	'1	322'4	2'9	29'2	9'4	11'6	31'0	259'6	104'2	'1	'1	'8	10'0	46'0	1,090'5	39'5		
UNITED PROVINCES.	29,311	64'8	1'6	...	'4	263'6	'5	3'3	8'6	11'7	30'1	51'8	35'8	'1	2'0	'1	22'4	113'6	840'1	39'5		
PUNJAB	13,469	'8	...	'1	'4	599'3	1'7	2'7	8'7	20'3	49'0	88'5	79'6	0'1	1'3	'7	20'6	143'7	1,251'1	37'8		
N.W. FRONTIER PROVINCE.	1,248	...	...	13'6	...	389'4	4'0	'8	3'2	19'2	35'1	63'3	32'1	...	...	...	13'6	177'1	95'7	30'4
BOMBAY	10,270	1'2	...	3'2	'5	413'2	10'3	6'8	5'6	33'6	48'8	55'1	47'8	'2	3'0	4'1	15'5	49'0	993'9	36'9		
BEAR AND SIKHIM	1,483	56'6	...	...	...	265'7	'7	9'4	4'0	20'9	26'3	30'3	25'6	'7	'7	...	14'8	30'3	676'3	20'2
CENTRAL PROVINCES	4,802	12'3	'2	'6	'4	367'1	1'0	1'0	5'2	11'5	18'1	65'6	77'3	...	2'7	'2	31'2	76'6	864'4	28'5		
MADRAS	10,456	16'2	9'6	...	'5	141'8	1'5	36'5	12'0	10'7	24'2	62'7	8'6	'2	'2	4'8	28'7	'1	592'6	25'2		

* Worked on the aggregates.

PRISONERS, 1901.

TABLE XLIII.

ACTUALS of FAILS, 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.	Phagedœna, Slough, and Gangrene.	ALL CAUSES.	Tetani.	Arcanis Imbricoides.	Dracunculosis.	Medicinal.		Strongylus duodenalis.	Other Entozoa.
Port Blair	12,183	54	...	...	11,284	250	...	131	159	701	1,993	611	...	...	18	48	1,365	1	20,508	3	...	3	...	1	616
Mergui	38	...	...	...	...	...	3	1	...	...	3	...	...	...	1	1	...	...	12	...	...	...	...	...	1
Tavoy	89	...	...	...	5	...	...	1	...	2	...	...	...	...	...	...	...	...	12	...	...	...	...	...	1
Moulmein	475	...	4	45	5	3	11	4	17	161	275	...	...	...	1	106	...	...	746	9	...	...	...	...	27
Shwegyin	144	...	...	...	14	...	2	...	1	6	1	...	...	...	...	...	10	...	45	...	...	...	...	...	3
Toungoo	386	...	...	...	36	...	3	3	4	5	5	...	...	...	1	37	...	...	158	...	...	...	...	...	5
Rangoon Central (Europeans)	15	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
Rangoon Central (natives)	2,995	...	...	374	11	38	19	6	16	91	65	...	...	55	7	235	1	1,532	...	...	...	...	...	...	96
Maubin	367	...	...	...	23	...	2	...	1	6	5	...	...	...	1	21	...	...	168	...	...	...	...	...	4
Myangmyo	313	...	...	198	30	...	1	1	3	27	30	...	...	1	2	79	...	...	432	...	...	...	...	...	10
Bassein Central	975	1	...	53	...	23	3	2	4	33	8	...	...	...	3	33	...	...	281	...	...	...	...	...	22
Insein Central	1,796	20	4	243	...	19	...	9	79	19	...	...	...	...	3	71	...	...	652	1	...	...	...	...	24
Henzada	484	1	...	45	...	2	...	1	...	9	...	...	...	...	5	43	...	...	126	...	...	...	...	...	4
Myanung	73	...	...	2	...	1	...	...	...	2	6	...	...	...	...	19	...	...	42	...	...	...	...	...	2
Sandoway	70	...	...	5	...	1	1	...	4	1	...	...	...	1	3	10	...	...	37	...	...	...	...	...	1
Kyaukpyu	116	...	...	56	...	1	...	2	13	6	...	...	...	...	...	14	...	...	120	...	...	...	...	...	5
Akyab	326	...	...	49	1	...	2	...	40	15	...	...	...	...	9	34	...	...	254	...	...	...	...	...	9
GROUP I.—BURMA COAST AND BAY ISLANDS.	19,945	54	22	8	12,431	307	67	197	179	759	2,466	1,056	...	1	73	84	2,077	2	25,070	12	1	3	...	1	830
Paungdi	126	4	...	20	...	2	2	1	1	5	4	...	...	...	1	3	...	...	57	...	...	...	...	...	2
Prome	321	...	...	12	...	2	...	3	17	5	...	...	...	...	17	...	...	...	125	...	...	...	...	...	7
Thayetmyo Central	966	...	...	28	...	3	16	13	2	34	1	...	...	...	14	26	...	...	508	...	...	...	...	...	23
Taungdwingyi	80	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Magwe	95	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Minbu	90	...	...	14	...	3	1	1	7	10	...	...	...	...	3	...	...	...	46	...	...	...	...	...	2
Yamethin	112	...	...	7	...	...	1	...	...	...	...	...	...	...	...	5	...	...	39	...	...	...	...	...	1
Meiktila	184	...	...	26	...	...	1	1	10	3	...	...	...	...	...	5	...	...	69	...	...	...	...	...	3
Pagan	73	...	...	6	...	...	...	...	...	1	...	...	...	...	...	7	...	...	15	...	...	...	...	...	1
Pakòkku	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	7	...	...	...	...	...	1
Myingyan Central	819	...	...	73	...	10	10	18	30	13	...	...	...	...	36	...	...	...	270	...	...	...	...	...	14
Mandalay Central	784	...	1	317	...	14	4	20	70	53	...	...	...	1	3	2	...	...	566	...	...	...	...	...	24
Monywa	90	...	...	1	...	...	...	...	...	1	...	...	...	...	1	8	...	...	20	...	...	...	...	...	2
Shwebo	126	...	1	16	7	1	2	9	4	10	6	...	...	...	...	31	...	...	108	...	...	...	...	...	4
Bhamo	77	...	...	14	...	1	2	2	30	9	...	...	...	1	1	15	...	...	99	1	...	...	...	...	5
Katha	80	...	...	8	...	1	1	1	2	4	...	...	...	...	...	3	...	...	24	...	...	...	...	...	1
Kindat	41	...	...	...	...	1	...	1	4	1	...	...	...	...	...	4	...	...	12	...	...	...	...	...	1
GROUP II.—BURMA IN-	4,078	4	2	542	7	7	51	43	54	221	111	...	1	1	20	168	...	...	1,061	...	1	...	...	...	91

JAILS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.										Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Intermittent Fever.	Remittent Fever.	Simple Billed Fever.	Tubercle of the lungs.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Ecol.	Phagedæna, Stomach, and Gangrene.	ALL CAUSES.	Terna.	Ascaris lumbricoides.	Dracunculus Medicinas.	Strongylus duodenalis.	Other Entozoa.	
Cachar .	65	1	11		18	2				1	12	6					4		47							2
Sibsagar .	60				16		7			2	10	4				3			51							3
Dibrugarh .	103				32		2	1		6	14	17				1	10		108	1						4
Tezpur .	254		1		54				1	3	50	20			1	1	8		163							9
Nowgong .	52				14					7	15	4				10	2	1	82		5		4			3
Gauhati .	200				81	1			1	2	68	12				2	12		207							8
Dhubri .	28				8			1		1	4						1		22							1
Sylhet .	546	81			264	4	2	1	1	15	158	31			3	23	15		666							29
GROUP III.— ASSAM.	1,308	81	1	1	487	7	11	3	3	37	340	94			4	40	52	1	1,346	1	5		4			59
Mymensingh .	576				150	1		8	5	13	207	46				1	23		750							31
Dacca Central	1,047				192	1	14	11	6	27	295	142				24	34		1,023							51
Tippera .	334		1		14		52	2	3	4	40	15			7	10	10		214		3					6
Chittagong .	182				147			3	2	8	120	33			6	3	14		362		4					10
Noakhali .	148				63				2	3	81	12				3	1		186							6
Backergunge .	546	114	1		123	1		7	5	27	218	142			7	3	16		807							46
Khulna .	34				27		3			2	11	7							64							2
Jessore .	371				90	4	49		3	6	238	19					15		553							14
Baraset .	97				102	2					98	28				1	13		277							7
Presidency, Central (Europeans)	35	1			5	1					4	1				1	2		21							1
Presidency, Central (natives)	1,287	26			149	1		17	20	14	213	22				6	9		610	2						30
Alipore Central	1,900		1	1	321	3	292	34	22	99	372	125			1	17	99		1,877			1	1			63
Hooghly .	383		10		81			4	1	13	395	290			4	14	43		1,013							35
Burdwan .	233				154	2		5	12	125	72				1		23		491							15
Krishnagar .	192				32					2	58	1				1	4		168							4
Faridpur .	361	20			260			5	2	14	223	101				17	13		729							35
Pabna .	224	11			73	2			3	5	132	14			1	4	4		319							10
Murshidabad .	256	5			70	11	9	1	1	9	43	8				3	15		292	1			1			9
Rajshahi Central	808	125			450	1		7	2	24	99	15			5		6	73	1,399							35
Bogra .	150		1		17					1	32	10				1	1		70							2
Malda .	100				81			4		1	5	10			1		5		112							3
Dinajpur .	251				90	1		2	1	9	17	5					5		153							5

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 lung.	Pneumonia.	Other Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.		Ascaris lumbricoides.	Tricentriculæ Medicines.	Strongyloides duodenalis.	Other Entozoa.
Rangpur	247	...	...	...	99	1	2	1	2	18	120	56	...	...	13	8	...	...	389	...	...	...	...	...	30
Jalpaiguri	96	...	...	...	74	...	...	4	4	10	5	4	...	...	...	3	...	...	130	...	...	...	...	...	5
Purneah	173	...	...	...	46	...	...	...	...	6	27	2	...	...	11	2	...	...	115	...	...	...	...	...	5
Naya Dumka	113	...	...	...	26	6	...	...	...	...	29	1	...	...	...	4	...	...	72	...	...	...	...	...	2
Suri	236	19	...	...	38	...	...	2	1	7	25	15	...	...	...	2	...	...	122	...	...	...	...	...	6
Bankura	265	...	1	...	66	...	...	7	1	10	43	14	1	...	2	6	...	...	193	...	...	...	...	...	10
Midnapore Central	1,175	38	...	...	326	...	...	20	16	26	273	82	1	...	2	37	...	...	929	...	...	...	...	...	39
Balasure	144	...	...	...	24	...	...	...	1	3	14	6	...	...	...	1	7	...	87	...	...	...	...	...	2
Cuttack	315	...	1	...	132	1	...	2	6	2	54	38	...	...	9	26	...	...	348	...	...	...	...	...	9
Puri	111	...	...	...	57	...	...	...	1	1	23	2	...	...	...	3	6	...	107	...	...	...	...	...	2
Angul	77	...	...	...	32	...	...	...	...	...	15	6	...	...	...	...	6	...	78	...	...	...	...	...	4
GROUP IV.— BENGAL AND ORISSA.	12,467	35	14	5	1	3,611	39	526	139	117	378	3,744	1,244	2	19	16	156	529	14,100	3	7	1	1	3	524	
A.																										
Chaibassa	162	56	9	...	1	2	3	72	8	5	185	5
Purulia	223	...	...	...	36	...	...	4	1	5	15	8	...	...	2	7	...	...	114	...	...	...	...	...	3
Ranchi	164	...	...	...	14	...	...	28	3	2	4	27	...	...	...	13	...	...	124	...	...	...	...	...	4
Palamau	99	8	...	...	10	...	...	...	...	...	55	10	...	3	...	1	9	...	109	...	...	...	...	...	4
Hazaribagh Central	1,091	45	1	1	314	2	...	7	22	33	199	111	...	...	7	79	...	...	1,018	2	...	...	3	...	28
B.																										
Gaya	573	...	...	...	178	...	...	2	14	4	180	36	...	...	1	2	14	...	511	...	...	...	...	...	13
Bhagalpur Central	1,816	110	...	...	194	...	...	19	36	75	267	121	...	...	1	36	1	...	1,208	...	...	...	4	...	74
Monghyr	263	42	3	...	102	1	...	2	1	8	77	54	...	...	...	3	10	...	330	...	...	...	...	...	10
Darbhanga	292	...	...	...	46	...	...	...	1	11	41	38	...	...	...	4	16	...	214	...	...	...	...	...	10
Champaran	347	7	...	...	33	...	...	2	1	4	8	37	20	...	...	2	8	...	152	...	...	...	...	...	6
Muzaffarpur	365	23	2	...	79	3	...	2	1	6	28	50	...	...	...	2	9	...	287	6	11	...	1	...	14
Patna	386	...	...	...	108	4	...	4	2	13	41	76	...	...	5	16	...	...	368	...	...	...	...	...	14
Arrah	252	...	...	...	24	1	26	...	6	10	60	18	...	...	...	3	16	...	213	...	...	...	...	...	6
Chapra	319	3	1	...	69	...	...	...	2	12	120	21	...	...	...	2	14	...	321	...	12	...	12	2	13
Buxar Central	1,285	...	...	...	1,565	...	...	6	22	53	277	143	...	...	7	146	...	...	2,385	...	3	...	11	...	64
Koranthdih	73	...	...	...	13	...	...	...	1	2	5	2	...	...	...	2	...	...	49	...	...	...	...	...	2
Ghazipur	523	...	...	...	67	...	...	2	...	9	8	11	...	...	...	16	39	...	195	...	...	...	...	...	12
Azangarh	348	1	...	...	70	...	...	3	8	27	21	19	...	...	...	31	74	...	353	...	...	...	...	...	16
Kasia	38	...	...	...	11	1	...	...	...	...	3	1	...	...	...	3	3	...	38	...	1	...	...	...	2
Gorakhpur	495	...	...	...	66	...	...	2	2	4	14	4	...	1	...	23	53	...	273	...	...	...	...	...	13
Easti	424	...	...	...	29	...	...	...	4	5	15	1	...	...	...	2	17	...	116	...	...	...	...	...	6
Fyzabad	561	31	...	...	157	...	...	2	11	35	25	30	...	7	...	40	62	...	709	2	1	...	...	...	30
Sultanpur	346	...	...	...	124	...	...	1	3	7	4	7	...	...	...	11	18	...	291	...	...	...	...	...	42

JILLS.	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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Stomach, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dysentæria Medicinæ.		Strongylus duodenalis.	Other Entozoa.
Ra Bareilly	595	8				58		4	3	12	6	3					64		256							25
Partabgarh	323	9				22		2	2	5		3				10	24		131							4
Jaunpur	322					47			1	1	13	9		3		3	39		169							8
Benares Central	2,038					400		22	8	24	108	72				5	196		1,188							58
„ District	526					75		7	1	10	25	13					46		245			1				12
Mirzapur	205					70		2	1	2	7	10	12			1	39		207							10
Allahabad Central	2,106		1			485		25	8	56	130	147				15	453		1,788							95
„ District	735	72				169		2	21	21	41	16				21	134		776		1					29
Karwi	26					1													3							
Banda	258					172			6	17	38	5				4	45		370		7					10
Fatehpur	329	40				89			12	10	64	9				9	37		360							12
Hamirpur	150	2				121		6	2		4	2	3			3	45		236							8
Orai	143	33				68		2	5	8	2	11				1	24		235							9
Cawnpore	378	132				61		3	11	8	6	25				5	105		593		3					32
Unao	301					16		28	2		5	10	4			1	2	18	142							6
Lucknow Central	1,690	184	41			239	1	26	12	17	185	70				4	115		1,137		1					51
„ District	567	46	2			66		5	2	7	43	22				5	51		361		1					15
Barabanki	413		1			62		13	1	2	4	9	11			1	7	59	287		1					10
Gonda	498					161		1	1	15	32	15				2	36		373							21
Bahraich	390					152	1	3	5	6	20	16	1			4	64		393							22
Kheri	321					62		1	8	5	12	5				3	74		220							10
Sitapur	664	68				33	1	3	11	9	9	4				4	21		224							9
Hardoi	420	45				80		9	1	4	2	15	12			1	39		271							8
Etawah	249					80		3	4	10	12	3				4	22		213							9
Mainpuri	387					104	2		4	13	28	36				2	57		345							18
Etah	316	32				212		3	5	18	22	24				137	67		629							25
Fatehgarh Central	1,989	258				394		40	23	122	117	47				3	192		1,863		4					98
„ District	408	25				71		1	1	6	4	22	24			3	31		237							8
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	27,156	1,222	67	210	6,985	26	117	219	312	753	2,549	1,437	1	41	2	440	2,761	1	23,075	48	33	1	16	27		285
A Shahjahanpur.	310					247			2	36	37	23					22		451		1					10
Bareilly Central	2,123	215				285		18	9	84	11	41	1	3		138	114		1,214							75
„ District	763	265	1			476		15	4	21	83	27		1		5	40	1	1,065							36

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TABLE XLIII—continued.

ACTUALS of FAILS, 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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gasangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus.		Mediænisus.	Strongylus duodenalis.	Other Entozoa.
Budaon . . .	333	16			59			2		2	9	3				4	12		166								5
Aligarh . . .	455	33			100		1	24	11	12	22				2	27		329								17	
Bulandshahr . . .	268				88			5	8	11	4				6	43		242								11	
Moradabad . . .	376	1	1	134	9	1	3	15	44	4				2	23		304		304				1		18		
Bijnor . . .	282			48		35	6	1	4	12				3	27		187		187							6	
Dehra Dun . . .	66			14		2	2	1	1	1				3	1		39		39							4	
Saharanpur . . .	310	6		77			9	5	24	11				4	33		242		242							12	
Muzaffarnagar . . .	203	20		104			5	2	4	1				2	11		177		177							7	
Meerut . . .	619	72		323			7	3	20	45	37			2	45		689		689							19	
Delhi . . .	488			343			9	22	4	38	32			2	34		528		528							12	
Rohtak . . .	194	8		340			1	6	5	19	2			4		45		515		515						12	
Hissar . . .	164			69	2		3	6	1	7				4	17		133		133							3	
Karnal . . .	162			34			8	10	11	7					16		111		111							3	
Umballa . . .	743			495			3	27	14	70	81			1	2	51		876		876						25	
B																											
Ludhiana . . .	254			95			2	3	6	28	8			5	15		210		210								6
Hoshiarpur . . .	49			19					1	7	4				14		65		65								2
Jullundur . . .	236			8	8	36	1		3	11	9			3	23		135		135								3
Ferozepore . . .	387			204			2	11	9	11	15			8	54		395		395								11
Amritsar . . .	182			181	1				7	28	17			1	9	32	1	329		329							9
Lahore Central . . .	1,471			1,869	2		24	19	230	204	345			1	13	362		3,700		3,700							92
" District . . .	507			366			5	16	18	70	61				100		708		708								24
" Female . . .	182			81			4	3	2	18	11				10		166		166								6
Gurdaspur . . .	181			35			2	4	2	5	4			1	17		126		126								4
Gujranwala . . .	342			74			1	3	10	1	15				9	24		171		171							6
Sialkot . . .	352			60					10	8	3			1	28		156		156								5
Gujrat . . .	97			11			1	1	1	2	4				3		46		46								2
Mung Rasul Central . . .	1,720			562	1		20	78	149	162	68	1		57	404		2,037		2,037								84
Jhelum . . .	208			256				5	3	22	9			1	19		332		332								6
Rawalpindi . . .	722			702	1	4	6	23	38	91	13	1	18	90		1,262		1,262		1,262							33
GROUP VI.—UPPER SUB-HIMALAYA.	14,698	635	2	1	7,822	23	72	130	284	719	1,019	1,009	2	21	7	302	1,776	2	17,105	3	2	28	1	3		568	

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.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Færia.		Ascaris lumbricoides.	Dracunculus Medicinæ.	Strongylus dentilis.	Other Entozoa.
Thana . . .	891	...	...	1	201	22	5	15	3	78	65	39	...	...	4	7	55	...	632	...	...	14	...	...	31
Bombay Common }	472	...	...	...	71	12	52	3	7	7	21	4	...	...	...	9	4	...	264	...	...	...	...	...	9
Bombay House of Correction }	435	...	...	...	167	3	...	4	7	10	15	16	...	...	1	3	10	...	337	...	...	4	...	...	9
Ratnagiri . . .	172	12	...	...	6	3	...	...	...	3	17	1	...	...	...	2	2	...	61	...	...	...	...	...	5
Karwar . . .	309	...	4	...	36	1	...	...	7	5	38	...	...	...	...	...	3	1	121	...	...	1	...	...	6
Mangalore . . .	121	2	1	1	6	1	...	...	4	4	2	...	...	...	...	...	3	...	41	...	5	...	...	...	3
Cannanore, Central }	807	5	...	3	58	...	...	11	10	18	25	12	...	...	3	9	...	...	322	...	...	...	...	...	17
GROUP X.—WESTERN COAST. }	3,208	19	1	4	545	42	57	33	38	125	183	72	...	...	5	24	86	1	1,778	...	5	10	...	...	79
A.																										
Bellary . . .	432	...	1	...	164	...	13	5	14	23	53	...	...	...	...	...	18	...	438	...	...	8	...	...	17
Salem Central	556	3	...	...	5	...	1	2	12	8	8	...	1	...	...	...	4	...	88	...	...	10	...	...	4
Coimbatore Central }	1,245	136	...	...	122	10	129	22	3	29	64	7	...	...	2	5	45	...	804	...	...	30	...	...	38
B.																										
Palamcottah . . .	405	...	12	...	6	...	25	3	3	16	45	...	1	...	...	3	1	...	195	...	2	8	...	...	8
Madura . . .	355	...	46	...	34	...	7	2	4	2	58	...	...	...	...	...	14	1	273	...	...	1	...	...	11
Trichinopoly Central. }	1,133	23	4	...	238	3	26	30	5	26	26	...	...	...	...	7	42	...	892	1	...	9	...	...	35
Tanjore . . .	340	...	...	...	12	...	7	...	...	1	15	...	...	...	...	...	9	...	110	...	...	3	...	...	8
Cuddalore . . .	401	...	...	...	28	2	4	6	...	14	31	...	...	...	...	...	14	...	224	...	1	11	1	...	9
Vellore Central	1,370	...	15	...	19	...	148	11	17	20	81	...	...	...	9	48	...	...	735	...	...	17	...	...	30
Madras Civil . . .	23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, Central }	1,139	...	3	...	124	...	4	10	7	19	39	...	...	...	4	48	...	...	441	1	...	2	...	...	18
Nellore . . .	229	...	...	...	6	...	17	2	...	8	5	...	...	...	...	...	8	...	83	...	...	5	...	...	3
C.																										
Rajamundry Central }	1,111	...	...	...	543	...	8	4	37	159	...	...	...	...	9	15	...	...	980	...	1	9	3	...	33
Vitagapatam . . .	579	...	...	1	64	...	4	20	22	19	21	...	...	...	7	6	...	...	345	...	...	...	...	...	23
Berhampur . . .	146	...	14	...	44	...	1	...	...	3	17	48	...	...	3	7	...	...	170	...	...	...	...	...	5
GROUP XI.—SOUTHERN INDIA. }	9,464	162	95	1	1,409	15	382	114	98	228	620	76	2	2	47	279	1	...	5,778	2	4	113	4	...	247	

PRISONERS, 1900.

TABLE XLIII—continued.

ACTUALS of FAILS, 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.	Diarrhoea.	Hepatic Abscesses.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	All Causes.	Tænia.	Ascariæ lumbricoides.	Dracunculus Medicinalis.	Strongylus dentalis.	Other Entozoa.			
Shillong	30	7	2	4	3	1	1	...	21	1		
Darjeeling	84	...	...	...	37	...	7	...	...	2	14	14	...	...	3	...	...	113	1	...	2	...	...	...	3
Almora	105	...	...	...	3	...	...	1	...	2	...	3	...	...	1	2	...	16	...	...	...	...	...	...	3
Pauri	10	...	...	...	7	...	...	...	...	3	2	3	...	...	...	...	1	28	...	...	...	...	...	...	1
Simla	17	...	...	...	3	...	...	...	...	...	...	1	...	...	2	...	...	10	...	...	...	...	...	...	...
Dharmala	72	...	...	...	23	...	...	...	2	2	3	2	...	...	3	10	...	62	...	...	...	...	...	...	3
Abbottabad	74	...	...	...	16	...	...	...	3	3	1	...	...	...	1	4	...	54	1	...	...	...	...	...	3
Quetta	75	8	...	...	44	...	...	4	2	12	...	2	...	...	...	15	...	130	4	...	...	...	...	...	3
Mercara	109	...	...	...	7	1	...	2	4	6	5	21	...	...	8	2	...	71	18	...	...	...	...	...	4
Rassellkonda	64	4	...	...	10	...	...	...	1	3	9	2	...	...	...	9	...	55	2	...	...	...	...	...	3
GROUP XII.—HILLS.	640	15	4	...	152	1	7	3	10	23	52	50	...	...	19	44	...	560	26	...	2	...	...	...	2
EXTRA INDIA.—Aden	41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...
INDIA† (a)	117,203	29	17	8	862	10	23	134	168	236	468	138	1	14	7	157	313	3	3,618	1	1	4	2	...	4,304			
Admitted	2,079	211	63	41	44,220	555	1,279	1,029	1,666	3,957	12,659	6,537	10	145	155	1,705	9,903	11	114,666	86	61	346	42	37	...			
Died out of hospital	...	13	106	10	20	100	76	2	452	423	109	686	157	8	6	83	6	4	3,149	...	1	1	4	1	...			
Died in hospital	...	...	...	...	...	1	...	3	3	...	...	1	1	...	...	1	...	86	...	...	...	...	...	...	...
ANDAMANS	12,183	54	...	...	11,284	260	...	131	159	701	1,993	611	...	...	18	48	1,365	1	20,508	3	...	3	...	...	616
BURMA	11,840	...	26	10	1,690	54	74	117	63	112	694	356	...	2	58	36	880	1	6,523	9	2	...	...	...	305
ASSAM	1,338	88	1	1	489	7	11	3	3	27	344	97	...	4	41	53	1	1,367	35	1	5	...	4	...	60			
BENGAL	20,140	596	35	7	6,496	59	59	190	233	624	5,231	2,099	2	22	17	201	927	1	21,072	33	36	1	17	31	795			
UNITED PROVINCES AND OUDH	29,311	1,898	48	111	7,725	16	96	252	344	881	1,518	1,049	2	59	3	656	3,329	3	24,625	19	7	1	1	9	1,158			
PUNJAB	13,469	11	...	6	8,072	23	37	117	273	660	1,192	1,072	1	17	10	278	1,036	1	16,851	3	2	72	...	...	599	
N.-W.-F. PROVINCE	1,248	...	...	17	486	5	1	4	24	40	79	40	...	...	17	221	1	1,189	28	...	...	29	...	...	38
BOMBAY	10,270	12	...	33	5	4,244	106	70	57	345	501	566	491	2	31	47	159	503	1	10,207	11	...	121	...	379			
BERAR AND SECUNDERABAD	1,483	84	...	...	394	1	14	6	31	39	45	38	1	1	...	22	45	1,003	37	...	...	2	16	...	30
CENTRAL PROVINCES	4,802	59	1	3	1,763	5	5	25	55	87	315	371	...	13	1	150	263	...	4,151	5	...	1	...	1	187			
MADRAS	10,456	169	100	...	50,148	16	382	125	112	253	656	90	2	...	2	50	500	1	6,196	2	...	113	4	...	263			

* Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases. † Including Ajmer, Quetta, and Mercara.
 (a) Including the subsidiary jails, the total figures are:— Average strength, 123,108; Average constantly sick, 4,413; Number of deaths, 3,272; Number of admissions, 120,503.

GEOGRAPHICAL GROUPS.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						Average for the year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
GROUP I.—BURMA COAST AND BAY ISLANDS.	19,722	19,528	19,507	19,573	19,543	20,057	20,302	20,103	20,136	20,130	20,191	20,331	19,045
	613	630	663	723	800	1,009	1,093	1,047	904	892	848	746	830
GROUP II.—BURMA INLAND.	4,207	4,111	4,042	4,016	4,030	4,141	4,115	4,099	4,055	4,057	4,058	3,688	4,078
	86	78	110	86	77	97	95	99	102	100	88	75	92
GROUP III.—ASSAM.	1,246	1,216	1,220	1,200	1,210	1,355	1,384	1,403	1,412	1,353	1,289	1,242	1,308
	44	41	42	49	66	91	69	67	67	65	63	43	59
GROUP IV.—BENGAL AND ORISSA.	12,003	11,881	11,848	12,019	12,082	12,507	12,779	12,589	12,014	12,084	12,769	12,629	12,467
	423	514	520	552	528	513	558	593	573	521	474	475	524
GROUP V.—GANGETIC PLAIN AND CHUTIA NAAGPUR.	27,844	27,121	26,753	26,714	26,687	26,634	27,407	27,666	27,593	27,428	27,011	26,719	27,156
	820	837	914	1,029	1,051	911	1,024	995	1,072	1,099	1,025	926	983
GROUP VI.—UPPER SUB-HIMALAYA.	15,119	14,985	14,703	14,519	14,415	14,603	14,718	14,658	14,726	14,855	14,623	14,429	14,698
	599	496	476	576	656	632	570	590	588	577	549	531	565
GROUP VII.—N.-W. FRONTIER, INDS VALLEY, AND N.-W. RAJ-PUTANA.	8,453	8,351	8,222	8,200	8,041	7,893	7,927	8,023	8,037	8,042	8,058	8,062	8,118
	238	199	191	220	260	281	221	240	228	259	283	298	245
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	5,706	5,693	5,595	5,398	5,404	5,531	5,542	5,513	5,530	5,541	5,464	5,457	5,321
	358	221	220	273	211	244	251	249	274	286	289	286	256
GROUP IX.—DECCAN.	11,295	10,941	10,586	10,291	10,127	10,411	10,679	10,783	10,736	10,283	10,215	9,927	10,359
	383	397	339	317	314	317	374	495	486	515	519	432	406
GROUP X.—WESTERN COAST.	3,311	3,345	3,319	3,242	3,187	3,150	3,136	3,122	3,087	3,174	3,159	3,161	3,268
	71	66	74	82	82	81	80	93	85	76	71	68	79
GROUP XI.—SOUTHERN INDIA.	10,027	9,722	9,320	9,055	8,949	8,923	9,219	9,424	9,684	9,667	9,748	9,675	9,464
	249	220	257	239	228	247	224	228	227	230	243	201	242
GROUP XII.—HILLS.	681	675	674	638	658	615	598	603	619	638	624	586	640
	20	15	19	19	24	27	25	21	25	23	19	19	21
INDIA*	119,653	117,501	115,722	115,040	114,875	116,235	117,743	118,416	118,736	118,708	117,252	116,454	117,203
	3,938	3,743	3,825	4,192	4,299	4,451	4,584	4,688	4,631	4,623	4,481	4,201	4,304

ADMINISTRATIONS.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						Average for the year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
ANDAMANS.	11,841	11,611	11,953	11,996	12,061	12,226	12,288	12,297	12,360	12,277	12,411	12,485	12,185
	294	425	460	535	601	804	853	818	677	626	627	537	614
BURMA.	12,068	11,728	11,596	11,613	11,820	11,972	12,229	11,905	11,831	11,820	11,839	11,834	11,842
	305	283	313	280	276	302	330	316	329	326	309	284	308
ASSAM.	1,278	1,249	1,261	1,293	1,244	1,383	1,407	1,420	1,439	1,285	1,221	1,271	1,238
	44	41	43	49	67	92	70	68	66	66	64	45	60
BENGAL.	19,559	19,345	19,159	19,441	19,520	20,086	20,599	20,387	20,830	20,683	20,605	20,515	20,140
	697	755	780	895	802	757	819	878	861	824	771	744	793
UNITED PROVINCES.	20,123	20,501	20,101	20,096	20,280	20,297	20,483	20,599	20,612	20,429	20,660	20,560	20,211
	1,068	1,009	1,010	1,238	1,245	1,097	1,202	1,130	1,262	1,281	1,240	1,140	1,158
PUNJAB.	13,079	13,025	13,741	13,529	13,275	13,244	13,270	13,297	13,373	13,457	13,215	13,219	13,469
	569	456	410	426	569	647	519	543	513	495	481	453	509
N.-W. PROVINCE.	1,255	1,129	1,282	1,268	1,229	1,220	1,161	1,208	1,217	1,250	1,287	1,339	1,248
	24	24	27	45	39	37	35	46	38	41	43	47	38
BOMBAY.	10,722	10,499	10,279	10,072	10,031	10,068	10,272	10,422	10,442	10,462	10,102	9,859	10,220
	357	322	346	312	296	305	347	421	399	465	497	451	379
BEHAR AND SECUNDERABAD.	1,720	1,807	1,578	1,523	1,478	1,474	1,475	1,467	1,499	1,262	1,299	1,247	1,482
	26	27	22	27	23	22	20	26	31	26	22	21	26
CENTRAL PROVINCES.	5,210	5,099	4,820	4,719	4,629	4,680	4,722	4,776	4,842	4,841	4,635	4,429	4,802
	151	144	122	122	109	102	112	147	180	154	145	122	127
MADRAS.	10,088	10,060	10,166	9,979	9,841	9,922	10,272	10,422	10,677	10,710	10,797	10,961	10,466
	267	243	258	257	247	271	246	250	250	266	265	225	265
INDIA †	119,653	117,501	115,722	115,040	114,875	116,235	117,743	118,416	118,736	118,708	117,252	116,454	117,203
	3,938	3,743	3,825	4,192	4,299	4,451	4,584	4,688	4,631	4,623	4,481	4,201	4,304

* Including Aden.

† Including Ajmer, Quetta, and Meerana.

TABLE XLIV.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS. SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table XLII.

BURMA.

Paungdi.—No overcrowding, as 183 prisoners were transferred to other jails to avoid it. The malarial fevers were chiefly due to the prisoners having had malaria in their systems before admission into the jail. Diarrhoea and dysentery were due to climatic causes. Cholera was unavoidable, as the disease was prevalent in the town before it broke out in the jail. A new under-trial ward, a civil and simple ward, a female ward, 6 solitary and 2 separate cells, are the chief improvements during the year. The diet the prisoners had, helped them a great deal to maintain good health.

Minbu.—There was no overcrowding during any part of the year. Malarial cases were cases of old infection. Dysentery and diarrhoea were owing to change in mode of life. The rheumatism cases were of old standing. The cases of tubercle of the lung had probably contracted the disease before admission. Pneumonia was probably excited by chill. The case of cirrhosis of the liver contracted the disease before admission. The drains round the under-trial ward and the workshop were raised to carry off water during the heavy rains.

Bhamo.—Overcrowding lasted for a few days during the months of February and March. Hollows exist in the ground round the jail, with insufficient drainage, and consequently there are pools of stagnant water during and after the rainy season. Abundance of mosquito larvae were noticed in these pools, which afford excellent breeding foci. The chief causes of sickness were dysentery and malarial fevers, due to indifferent or bad health before admission to jail, to previous malarial infection, to the opium habit, and to previous attacks of diarrhoea and dysentery. In addition there may be a specific cause for the dysentery within the jail, the source of which must be sought in the water of food. During the coming year, if opportunity occurs, investigation into this will be made.

BENGAL.

Mymensingh.—Overcrowding lasted throughout the year. Three workshops and temporary sheds were used at night. An estimate has been prepared for ventilating the upper permanent wards. The surroundings of the jail are low and are flooded during the rains, and the water accumulates and stands for a length of time. The sickness and mortality were due to the overcrowding during the year. The cases of ague mostly came from the temporary sheds, which were open to heavy dews at night. The want of vegetables which was so badly felt during the months of June, July, August, and September, had some effect in increasing the number of dysentery cases during those months. Arrangements have been made with the municipality to have proper levels taken of the surrounding grounds by the surveyor who is making a survey of the town and preparing a general drainage scheme. Prophylactics were issued up to August, but without any appreciable effect. Coconut oil has been issued to the prisoners for rubbing three times a week, and this, in my opinion, has done some good in reducing the admissions for dysentery.

Noakhali.—Overcrowding lasted, from March to December in all the wards. Workshops were used at night throughout the year. Ventilation in the workshop is bad, and steps are being taken to improve it. The water of the reserved tank has been pronounced suspicious by the Chemical Examiner. At present water for drinking purposes is brought from the hospital tank, which is not so good as it should be. A proposal has been made to get water from the Baradighat reserved tank in barrel carts. Recommendations regarding raising of floors, improvement of water-supply, etc., were made during the year.

Backergunge.—Overcrowding lasted in all the wards, except the hospital, from the beginning of the year till October. Temporary sheds, as well as one workshop and the old cookshed were used at night. The surface drainage was ineffective at the beginning of the year, but four new drains were made to remedy this. The water-supply was obtained from the jail tank for the first six months of the year, and was very bad. For the latter part of the year it was got from the middle of the river, with good effect on the health of the prisoners. The sickness and mortality were mainly due to the prevalence of dysentery, which was caused by the bad water-supply. The cases of dysentery may be placed into two classes; one is composed of acute cases which originate in the jail, and the other of imported cases in various stages of the disease. With regard to the second class, a special gang of chronic dysenterics was formed, and most of the admissions and deaths from dysentery came from this gang, and not from the bulk of the prisoners. Dysentery is very prevalent in the sub-jails of this district, and every precaution has been taken to prevent the disease by special attention to their water-supply. The people in this district depend for their water-supply mainly upon small tanks and khals, which are very liable to pollution. Most of the deaths from tubercle were due to the severe epidemic of influenza which broke out in this jail in April last. The same remark applies to the deaths from pneumonia and bronchitis. The construction of a hospital to accommodate 60 prisoners has been recommended and sanctioned. At present sick prisoners are accommodated in one of the sleeping barracks.

Hooghly.—Overcrowding lasted only one night in one convict ward, and 9 nights in the female ward. The wards are of a very old fashioned type, four rows of prisoners sleeping between openings on opposite sides; as the wards are built round three sides of a square, some of them are at right angles to others, so that it is impossible that there should be free ventilation through them all at once. The main drain on the north-west of the jail, which was in a very bad condition, was made pucca in the early part of the year, the jail and the municipality sharing the cost. Four of the sleeping wards have their night latrines actually in the ward. Owing to the high mortality, from the beginning of August to the end of the year, all prisoners were allowed one chittack of fish, half a chittack of potato, and half a chittack of onion. A Pasteur filter was set up during the year the installation being completed in December. Crowded bustis surround half the jail, and come very near the jail wall on the north-west. Two greater defects are the very bad climate of the district, and the very bad state of health, due to climatic causes, in which a large number of prisoners are admitted. More than half the admissions and more than two-thirds of the deaths, were due to bowel-complaints. These are due to the usual climatic causes, and to a considerable extent to the bad state of health, resulting therefrom, in which many prisoners are admitted to jail. Another cause is that, this jail being greatly too large for the requirements of the district, large gangs are transferred here from other overcrowded jails, and these transfers do not do well here. Even if admitted in good health, and ultimately retaining fairly good health in this jail, almost all go through a seasoning of dysentery soon after their admission.

Burdwan.—There was slight overcrowding in the under-trial ward for several months during the year. None of the wards is properly ventilated, specially in the winter, when all the windows are kept shut. The outside drainage is unsatisfactory, particularly since the railway department has blocked up one of the principal municipal drains. There are ditches and sweepings on all sides of the jail enclosures. The town is very malarious. The drainage of the town is notoriously defective, and there are hundreds of small tanks of stagnant water all over the town. The conservancy arrangements are also capable of improvement. The sickness was due to local climatic causes. Several recommendations are under consideration.

Faridpur.—Overcrowding lasted over all the wards about the whole year, and was relieved by using temporary sheds and by transferring 362 convicts to other jails. The corrugated iron sheds require more ventilation. The local cause of disease was the overcrowding which prevailed nearly throughout the year. There was also a very large proportion of old prisoners admitted in broken down health with weak digestions and liable to recurrent attacks of dyspeptic diarrhoea, turning into dysentery if not attended to. The increase in malarial fevers was due to the early cessation of the rains, whereby swampy lands in the neighbourhood were not thoroughly flushed. The jail has been healthier this year. More attention was given to the sick and weakly, and animal food was issued throughout the year to the prisoners, who are essentially a fish-eating people. Various recommendations were made by inspecting officers.

Rangpur.—More or less overcrowding lasted, nearly over all the wards, about 10 months. The surface drainage was not quite satisfactory, as after a heavy shower of rain the water flooded the godown and workshops in the middle of May. This is due to the block of building being sunk, the plinth going down below the level of the adjoining ground. The issue of a large quantity of mangel-wurzel was not quite suitable to the prisoners, as much dysentery occurred about that time. The issue of those vegetables was stopped, and potatoes were issued, and this had a salutary effect. Later on a cleaner or finer kind of rice was issued to the sickly prisoners in the hospital and convalescent gang. This also was satisfactory in result. The general dampness of the soil and air and the waterlogged condition of the country must be considered injurious to the health of the prisoners. During the last quarter of the year malarial fever raged throughout the district. A new day-latrines was constructed and recommendations were made to improve the drainage inside the jail, and to provide a privy for hospital patients with places for examining stools and incinerating the dysentery stools. The probable effect of locking up for about 12 hours in pucca wards a large number of people who are habitually in the open air for more than 18 hours out of the 24; of cooking by male prisoners who know nothing of cooking at all, and the probable injurious influence of withholding tobacco, have already been stated in previous reports.

TABLE XLIV.—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS. SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

Jalpaiguri.—Overcrowding lasted only for a few days in November, and was relieved by keeping the convicts in the worksheds during the night. Pasteur filter water was in use, but after July the water was boiled, as the pump was broken. Steps are being taken to get it put into working order. The wells are disinfected regularly with potassium permanganate. The prisoners are monthly admitted from the Duars, which is a very malarious district. One man who died from phthisis was admitted in a moribund condition, after having been brought 15 miles in a bullock cart. The floor of the workshed is exceedingly damp. It is desirable that some steps should be taken to remedy this defect.

Puri.—There was overcrowding from 13th June to 2nd August only in wards Nos. 1 and 6, but this was relieved by accommodating the excess number of prisoners in the worksheds. Malarial fever and dysentery were very prevalent throughout the district, and the increase in the jail was due to this cause. The general health of the prisoners on admission was of a low standard. Most of the cases of fever and dysentery occurred during the rains, and also at that time the jail was rather overcrowded. A separate ward for dysentery and an increase in hospital accommodation are necessary.

Bhagalpur Central.—The population has steadily been increased for years, and more so during the last 6 months. The accommodation has not been increased proportionately; and further, the erection of cubicles has reduced the capacity of some of the wards. An attempt to meet this has been made by the erection of temporary barracks. They are insufficient for the purpose. Working sheds have also been used as sleeping sheds. This is a very unsatisfactory arrangement. The accommodation can only be satisfactorily increased by erecting double storied barracks in place of the old single storied ones. This has been done in former years and should, if possible, be carried out throughout the jail. It is also urgently required in the hospital. The water-supply was not altogether satisfactory. Bacteriological examination occasionally showed that the water was imperfectly filtered. The water was supplied from the municipal water works, and the supply was totally insufficient on various occasions, especially towards the end of the year. When it runs short, well water is used, and is boiled before issue for drinking purposes. The contract with the municipality is for 50,000 gallons per diem. This does not include water for bathing purposes, which is obtained from wells. This double supply is unsatisfactory, and it is a serious question whether it would not be better to give up the municipal water-supply altogether. The cause of the bowel complaints cannot be actually stated. They are commonest during the rains. Tubercle is certainly favoured by crowding, but the death rate from this for the jail population is low. Cerebro-spinal fever accounted for one-third of the total deaths, and but for its prevalence the death-rate would have been very low. It attacked chiefly prisoners employed on dusty work, and experience has shown that overcrowding is a favouring factor.

Patna.—Overcrowding lasted throughout the year, particularly in the hospital and No. 12 wards, and was relieved by using temporary sheds and tents. Plague occurred first in a prisoner within a few hours of admission on February 1st; he died. Rats died on February 28th and on the following days in various parts in and outside the jail. The epidemic followed on March 4th, and 17 cases with 9 deaths occurred in March. One case of cholera occurred in April, 11 in July and 1 in August. The first case in July was in a prisoner working outside, and the milk became infected, apparently by flies, resulting in other cases. The glass-doored chamber for keeping hospital patients' stools for inspection was built and brought into use. It effectually prevents infection from the stools by the agency of flies. The drinking water boiler was renewed. Cinchonidine was issued three days a week from August to November. Owing partly to this, and partly, no doubt, to the failure of the rains, there were few fever cases during the last quarter.

UNITED PROVINCES OF AGRA AND OUDH.

Jaunpur.—There was no overcrowding. Some of the prisoners were admitted in bad health. As plague existed in the city, the exits of all the drains leading from the jail were covered with fine wire netting in order to prevent rats entering.

Allahabad District.—Owing to the epidemic of cerebro-spinal fever which occurred in this jail during last year, there was no general overcrowding in the winter and early summer months, as a great many prisoners were camped outside the jail. There was slight overcrowding of particular barracks for special reasons on and off for 27 days only. The trenching was very carefully attended to. Still it seems to be undesirable that the excreta of over 700 persons should be so constantly deposited in the immediate vicinity of their barracks. It takes about two years to use up for trenching the whole of the garden. This has been going on for many years, and it is probable that there would be great advantage in allowing the ground to have a rest for two or three years. I see no other sanitary defect in the jail, and it is doubtful whether or not this is a defect. There was a diminution in the number of cases of dysentery admitted, but a great increase in the death-rate. In the general population and amongst the military the dysentery occurring in 1901 was of an extremely virulent type. There were 25 admissions for cerebro-spinal fever with 21 deaths. Two cases remained from 1900, both of whom died in January; no further admissions took place till March, when two were admitted, one on the 19th and one on the 20th. Then in April, May, and June there were several admissions, and the prisoners were turned out into camp as the barracks became infected, and were brought back into jail on the 25th June. No further cases occurred until November. Four cases occurred in that month and four in December. The first prisoner attacked in March had been 21 months in the jail and had no communication with the outside. He must have got the disease in the jail and the only conclusion is that the infection must have lain dormant from the time of the cessation of the previous epidemic. The first man attacked in November had been 42 days in the jail. He too most probably was infected in this jail. Many of the prisoners were admitted suffering from malarial cachexia. Mumps was epidemic in the district before it broke out in the jail. Influenza was epidemic in the district and civil station throughout the greater part of the year. Dysentery of a very virulent type was prevalent in the district and in the civil station. Diarrhoea was less prevalent. Pneumonia was more prevalent. The prisoners lived in well ventilated barracks, which were frequently washed with strong antiseptic solutions.

Banda.—Tents were used to relieve overcrowding in August and November. All water was boiled for drinking purposes. The chief cause of the malarial fevers and dysentery seems to be the poor health of the prisoners at the time of admission into jail.

Hamirpur.—There was no overcrowding. The water for drinking purposes was taken from one well which was permanganated regularly. An under-trial prisoner came into jail with dysentery from which he had been suffering for a long time outside. The case of septicæmia was due to septic matter having entered the puncture made in a prisoner's foot by a thorn. Several of the inner division walls were lowered from 15 to 8 feet, and this improved the ventilation of the jail. A ward for infectious cases was made during the year.

Orai.—There was never any overcrowding during the year. The inner enclosure wall of the jail being in places higher than the outer wall was lowered to a uniform height of 8 feet, and this measure immensely improved the ventilation. Besides this, cultivation within the jail proper was stopped. These two measures are, to a great extent, accountable for the small mortality during the year.

Cawnpore.—There was slight overcrowding for a few days, relieved by using tents. Ventilation was defective, owing to the inner circle wall being too high, but the height is now being reduced. The municipal water-supply was introduced during the year. The city, from which a number of prisoners are received, is unhealthy, with a high death-rate, owing to the want of a proper drainage scheme. Influenza was rife during the year. The sickness and mortality were due to outside causes and not to any defects in jail life. The city is insanitary, and in the district malarial fever prevails.

Gonda.—The ill health in this jail was chiefly due to ill-health of habitual prisoners on admission. When all the kutchra drains are replaced by pucca ones, there ought to be a decrease in malarial fevers, except in so far as they are introduced by new admissions. The only apparent cause of sickness in the jail is the water logging of the site.

Etah.—Overcrowding lasted in barracks Nos. 3 and 4 from 14th October to 1st November, and was relieved by using the factory buildings. The drainage surrounding the jail outside is defective, as reported in the previous year. The inmates of the jail suffer from the same diseases as the free population, there being no special cause operating inside the jail. The bulk of the prisoners benefit in health after admission into jail. The admissions into hospital were principally due to the sickly condition of the prisoners when brought to jail.

Bareilly District.—No overcrowding at any time. In rainy weather barracks Nos. 3, 6 and 7 were used as factories during the day and were also occupied at night. As there is no factory in the female enclosure, barracks Nos. 2 and 4 are used by day and occupied also at night. There are three tanks in front of the jail, which probably act as breeding grounds for mosquitoes. Dysentery was due to predisposition caused by malaria; influenza to its own specific germ, pneumonia to the germs of influenza and to the pneumococcus; ague to the plasmodium malarie, which is constantly being introduced into the jail by prisoners from the terai and malarious parts of the Pilibhit and Bareilly districts; phthisis to the tubercle bacillus acquired outside; diarrhoea to chills, to passive congestions from obstructive affections of the lungs, heart, and liver, and occasionally to eating raw grain in the mill-house.

TABLE XLIV.—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS. SANITARY DEFECTS. IMPROVEMENTS, SUGGESTIONS, etc.

Moradabad.—There was overcrowding for a few days in July and August, and the excess was distributed over many wards. The under-trial ward and adjoining convict ward are too much enclosed. The hospital is enclosed by a solid wall. Plans have been submitted for remedying the former, and work is in progress to improve the latter, by substituting railings for the wall. The distribution of water is not universally carried out by pipes. Estimates for providing pipes, and for a pump for the well have been submitted. The water is abundant and good.

Dehra Dun.—There was no overcrowding. The only death which occurred during the year was from phthisis. The patient was admitted with the disease in an advanced stage.

Agra Central.—From April to the close of the year two factories had to be brought into use to avoid overcrowding, the usual accommodation being lessened by building and repairing work which was going on. Water is supplied from municipal water works. Sickness appeared to be to a considerable extent the result of a severe epidemic of influenza, which occurred in the beginning of the year. Of the prisoners who died, 8 were admitted to jail in bad health and 20 in indifferent health. Dysentery and diarrhoea were rather prevalent at the beginning of the year, the exact cause being difficult to determine. It was probably the result of the malaria which was prevalent after the heavy rains of the previous year.

Jhansi.—There was some overcrowding in many barracks during the months of June and July. Ague, which was not of a severe type may be ascribed to climatic causes. The sickness and mortality cannot be ascribed to any cause existing within the jail.

Lalitpur.—There was no overcrowding during the year. There were only four deaths, the last three amongst prisoners admitted in extremely bad health.

PUNJAB.

Rohtak.—Overcrowding lasted for 41 days. Water lodges in the main enclosures, because the drainage is defective. The water of the inner jail well deteriorated, but after repairs and disinfection it has become good. The unusual sickness from malarial fever was due to the disease existing in an epidemic form to some extent in the district, and also to exposure on extramural labour. Six cases died in hospital, none of them preventable. Owing to previous years of famine, prisoners on admission were found to be of poor physique and a good many with enlarged spleens.

Karnal.—There was overcrowding, particularly in the female ward, for two days, which was relieved by placing all the female prisoners into the quarantine ward. The ventilation in the female ward was improved by making ventilators in the back wall. The yard is still small. Ague was the chief cause of admissions into hospital, due to the fact that the people in the district were still weak and anæmic from the excessive prevalence of malaria and famine in 1900. The prisoners who died of pneumonia were all received into the jail in indifferent or bad health. There were many cases of this disease in the free population of the district.

Ferozepore.—Overcrowding lasted for 156 days. Workshops were used for 61 days. Tents were used outside the jail.

Amritsar.—The jail was overcrowded for 16 days, but no overcrowding of barracks was allowed to occur, the extra prisoners being accommodated in the workshops. The barracks and hospital are very draughty in winter. To correct this the large barred doors facing the east were closed with brick and plaster. All water for drinking, mixing with food, and for washing food utensils, is boiled. Amritsar being essentially a malarious district, most of the sickness was due to climatic conditions bringing about fever and catarrhal affections of the pulmonary and gastro-enteric tract in malarious subjects. No other cause for the chief sickness among the prisoners is known. The hospital is unsuitable for the treatment of pneumonia and other pulmonary cases.

Lahore Central.—Ventilation is defective, inasmuch as it is under 10 square feet per head. Ague, as usual, was the chief cause of sickness. It was, however kept absolutely under control during the malarial months of August to November by the use of quinine, and there were only 381 admissions against 1,512 in the preceding year. Dysentery and diarrhoea were most important diseases in this jail; the high case and death-rate being, however, the tail end of the epidemic that prevailed during November and December 1900. No death occurred from these diseases during the latter 6 months of the year. Tubercle of the lungs again accounted for a large number of deaths, but no less than 13 men were practically cured by the open air treatment. Various improvements were effected and recommendations made as to the hospital.

Mung Rasul Central.—The surplus population was accommodated in tents outside the jail area. The jail was evacuated by convicts on July 10th, and the whole population was accommodated in tents. This was on account of an epidemic of cerebro-spinal fever. The jail has not been occupied since that day, except since November 25th by a small number of prisoners varying from 65 to 80. The increase of admission under the head of ague is accounted for by the abundance of mosquitoes this year as compared with last. No one escaped being bitten, and no one escaped fever. It also attacked warders and jail officials. Nearly all of the latter, including the medical officer, had fever at one time or another. The presence of mosquitoes may have been due to the flow of water in the canal, which began in June 1901 for the first time. The increase of pneumonia was due to the habit of convicts sleeping with their head covered over with their blankets, and being in camp, the blankets contained dust which probably acted as an irritant. All the camps are very dusty. No cause can be given for dysentery. Cerebro-spinal fever prevailed; it was the subject of special report and of a special medical commission.

NORTH-WEST FRONTIER PROVINCE.

Kohat.—The jail was overcrowded throughout the year. Actual overcrowding of the sleeping barracks was as far as possible eliminated by using the workshops and occasionally tents for the accommodation of prisoners at night. One workshop was used at night for 119 nights, but was not used in the day time. Ventilation in one of the barracks occupied by under-trial prisoners is very faulty. Of the three prisoners who died from pneumonia, two arrived with the disease. The one who contracted it in the jail was sleeping in the ward already mentioned as being deficient in ventilation. Of the two men who died of dysentery one was admitted with the disease acute, the other died from the effects of chronic dysentery contracted before imprisonment.

BALUCHISTAN.

Quetta.—No overcrowding. The principal cause of sickness was malaria. There is no collection of water in or about the jail. Malaria is prevalent in the district. The prevalence of dysentery and pneumonia cannot be traced to any particular cause. The climate in winter is very severe, and there is much pneumonia among the surrounding population.

BOMBAY.

Sind Gang.—Only for 3 days in the month of June was the number in excess of 500, which is the sanctioned strength of the gang, and, though for a good part of the year the number was in excess of the nominal accommodation, there was no crowding in any particular barrack at any time, as the prisoners were sleeping in the open during the summer season, while during the winter months tents were put up to accommodate any excess number. Besides, the strength was kept at a low figure during the cold season. The water was declared by the chemical analyser to be unfit for potable purpose. During the inundation season canal water from the Indus river was used. The surrounding country is flat and sandy, and the camp itself is surrounded by fields and water-courses. This appears to be the chief cause of malarial fevers. Again, the winter in these parts is severe and the variations of temperature great, hence the prevalence of pneumonia and bronchitis in the cold season. The prisoners on extra-mural work are the chief sufferers, as they are exposed, on account of the nature of their work, to the full variations of temperature. Great care was taken this year to destroy the breeding places of mosquitoes. All hollows in or round the camp were either filled up or kept perfectly dry, and all jungle round the camp was cleared. This had the effect of reducing the number of mosquitoes, and though malarial fever did prevail in the gang in October and November, it was chiefly of an intermittent type, there being only one admission from remittent fever against 63 in the previous year. Unfortunately, this year the fevers coming on later than usual lowered the sustaining powers of the prisoners, who then

PRISONERS, 1901.

TABLE XLIV.—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS. SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table XLII.

became an easy prey to pneumonia, which began in the latter part of November, before the convicts had any time to recover from the prostrating effect of fever. To remedy this, the diet of all prisoners was increased by 2 ozs., and warm congee was administered in the morning, weakly prisoners were transferred, and the strength of the gang was kept at a low figure. The work of the prisoners was also reduced, and they were sent late and brought early, to avoid morning and evening chills. All available warm clothing and blankets were issued. Pneumonia cases were treated in a separate ward, and vessels with disinfectant were provided for receiving the sputa. Shutters were fitted to doors of barracks, to prevent direct draught, and prompt treatment was given to all cases; and particular care was also taken to prevent any crowding of barracks; tents being freely used, when required.

Rajkot.—Overcrowding existed during the whole year except in the month of May in all the wards. Females had no workshop, but worked in their sleeping room. Dysentery and diarrhoea were probably due to chill and variation of temperature. The whole population of Kathiawar was suffering from privation, if not starvation; and in their debilitated state the climatic effect of an unusually short monsoon gave rise to malarial fever.

Yerrowda.—The jail, except the female and European prisons, was entirely overcrowded throughout the year. Five workshops were occupied at night. Since 28th November 1901, one temporary barrack holding 75 prisoners has been occupied. The ventilation in the hospital and of the hospital latrines might be improved. Moreover the amount of superficial and cubic space allowed is quite inadequate for a hospital. There are no *pakka* drains; and they are very badly needed. It is hopeless trying to do anything with the present *kutchha* drains, and it is perfectly disgraceful to see the pipes of the water supplied for drinking purposes running along the bottom or sides of the channels for sullage water. The present latrines are *kutchha* and utterly inadequate in the number of seats for the prison population. This is bad both from sanitary and disciplinary points of view. The water is good, but most capricious in supply; and prisoners have frequently to be kept working from 4 A.M. to 9 P.M. to ensure a sufficient quantity. The pipes are freely exposed to chances of pollution, and it is a good deal the kindness of fortune that we had not a good deal more dysentery and kindred complaints or an enteric epidemic. The persistent overcrowding was a fertile cause of ill health. This overcrowding was as marked in the hospital as elsewhere. Proper accommodation for dysentery and tubercle patients, and for those suffering from infectious diseases does not exist, more especially for the two former classes. Most of the admissions from ague were believed to be relapses. The overcrowding helped to increase the liability to ague and also led to a great increase in the bugs. It is suggested that the bugs may carry the infection as mosquitoes do. Dysentery occurred most frequently among recent admissions. Three prisoners had tubercle on admission into jail. Cerebro spinal fever was believed to be due largely to overcrowding. In the one case bacteriologically examined, Captain Lamb, Indian Medical Service, reported that the infective agent was the pneumococcus, and the cerebro-spinal meningitis secondary to pneumonia; but as this was the only one of the five that had lung symptoms it leaves the question in doubt as to whether the other four were not true cerebrospinal meningitis. Recommendations were made with regard to accommodation ventilation, drainage, etc.

Thana.—Overcrowding lasted throughout the year. Convicts were equally distributed throughout the wards. Three barracks were used as workshops in the day time and as dormitories at night. This overcrowding might have had a prejudicial influence on the general health of the prisoners. The climate of this locality does not agree with prisoners coming from places above the ghâts, such as Nasik. It being relaxing, damp and enervating, soon predisposes them to develop symptoms of tuberculosis and other diseases. Thus these Nasik people contribute nearly 50 per cent. of the total mortality in this prison. The chief factor in the causation of disease and mortality was climatic. But prisoners were also admitted in a weak state of health, and were soon attacked with disease incidental to prison life. The moat around the prison has been filled in, and it is to be seen how far the incidence of fever will be influenced by its abolition. Precautionary measures were adopted to prevent an outbreak of plague in the prison, which prevailed more or less throughout the year in the town of Thana and several other parts of the district. Six prisoners were, nevertheless, attacked with the disease. It is difficult to assign any cause for these attacks. No dead rats had been found in the jail premises, and this disease had not appeared among the establishment. No extra-mural parties had been sent out, and those attacked had been working in the jail garden. One man was at work in the flower garden, where dead rats had been observed, and the other was working in the kitchen garden, where no dead rats had been discovered. The under-trial prisoner had not been out of custody, and had been confined to his cell. It is difficult to say how he contracted the disease, as no dead rats had been found where he was quartered. Two hundred and sixty-four convicts were inoculated with M. Haffkine's anti-plague serum on the reappearance of the disease in November.

Bombay Common.—The prison was overcrowded throughout the year, and workshops were also occupied at night during the whole year. Temporary sheds were used in the day time as working sheds. The sickness and mortality were chiefly due to climatic causes and to general unhealthiness prevailing in Bombay. It is however possible that the continued overcrowded state of the jail contributed to a certain extent to the prevalence of relapsing fever. It is very surprising that, though plague cases now and then occurred in the close vicinity of the jail, not a single prisoner was attacked during the year.

Bombay House of Correction.—The jail was overcrowded during the whole year. Temporary sheds of yards Nos. 2 and 4 were used. The prevailing diseases were due mostly to climatic causes. Plague lasted for only one month from 9th March to 10th April. In the cold season, though plague increased in the city, not a single case occurred in the jail. The continually overcrowded state of the jail possibly increased the sickness and mortality from tubercle.

CENTRAL PROVINCES.

Saugor.—There was no overcrowding during the year. The source of infection of the dysentery cases could not be traced. The case of laryngitis was evidently due to cold during the rains. Tubercle of the lungs was contracted outside the jail. The decrease in the admissions from ague is attributable to the issue of quinine once a week.

Hoshangabad.—There was slight overcrowding, especially in the under-trial ward, for about two months owing to the large number remaining from 1900 and the admission of many under-trial prisoners. The diseases were mainly due to climatic influences, and not traceable to causes inside the jail.

Nimar.—Overcrowding in the under-trial ward lasted for 6 weeks. Fevers were due to malarial cachexia and previous infection. Several of the prisoners came in with enlarged spleens. Dysentery furnished admissions during the first two months of the year only, when the district population had not quite shaken off the effect of the famine of 1900. Conjunctivitis was mainly due to the nature of the industry, *vis.*, gitti-breaking.

Bhandara.—There was slight overcrowding for a few days in the under-trial ward during the year. The hospital requires better ventilation. It would be an advantage to have the town water-supply brought into the jail. The mortality cannot be classed as due to any specific cause.

MADRAS.

Madura.—No overcrowding. There was a severe outbreak of cholera in January 1901, and there seemed to be some connexion between this disease and the digging of deep trenches for the new water-supply of the jail. In previous years, before the construction of this jail, all who died of cholera were buried here. A very large number of prisoners were admitted in very bad health with constitution ruined by malaria, dysentery, venereal diseases, drink, and starvation. The Madura municipal water-supply was introduced into the jail by means of pipes, and all well water discontinued. If the prophylactics were tried regularly, and in the proper season in the form of solution, they would have a very beneficial effect on the health of the prisoners and reduce the number of admissions to hospital.

COORG.

Mercara.—Overcrowding lasted for a few days, when the maximum number was confined, in wards Nos. 1 and 3 and the male under-trial ward. Sickness and mortality were due to climatic and constitutional peculiarities.

JAILS AND ADMINISTRATIONS.	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																												
Mooltan District . . . . .	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	...	...	...	...	3	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B																												
Agra Central . . . . .	...	...	...	200	74	1	...	...	...	...	...	...	275	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi . . . . .	...	...	7	5	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	...	...	7	205	74	1	...	...	...	...	...	287	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
A																												
Nimar . . . . .	...	...	...	3	1	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagpur Central . . . . .	...	...	...	21	14	2	...	...	7	11	...	...	55	...	...	...	...	...	...	...	...	...	...	...	...	...	1
B																												
Secunderabad . . . . .	...	...	...	...	13	...	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yeotmahl . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amroli Central . . . . .	...	...	...	6	51	...	...	...	...	...	...	...	12	69	...	...	...	...	...	...	...	...	...	...	...	...	...
Akola	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	1	...	...	31	79	2	...	...	7	11	...	...	143	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Ratnagiri . . . . .	...	...	...	11	1	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore . . . . .	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Cannanore Central . . . . .	...	...	...	5	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST	...	...	...	16	1	2	...	...	...	...	...	...	19	...	...	...	...	...	...	...	...	...	...	1	...	...	1
A																												
Ballary . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Salem Central	1	2	3
Coimbatore Central	15	65	31	22	2	...	1	...	136
B																												
Palamcottah . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12
Madura	45	1	46
Trichinopoly Central . . . . .	...	...	10	3	...	...	5	4	1	...	...	...	23	...	...	...	...	...	...	...	...	...	...	2	2	...	4
Vellore Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	...	15
Madras Penitentiary, Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	3
C																												
Berhampur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	...	...	...	...	...	14
GROUP XI.—SOUTHERN INDIA	...	1	27	68	31	22	5	4	3	...	1	...	162	46	...	...	...	...	...	...	15	2	15	1	2	14	95
Shillong	1	...	6	...	...	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta . . . . .	...	...	...	6	1	...	...	...	...	...	...	...	1	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Russelkonda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	4	
GROUP XII.—HILLS	1	...	6	6	1	...	...	...	...	...	...	...	1	15	...	...	...	...	...	...	3	...	...	1	...	...	4
INDIA*	56	137	383	1,247	677	145	44	45	35	51	83	76	2,079	46	...	2	2	17	6	43	38	35	5	3	14	211		
ANDAMANS	...	...	...	...	...	...	...	...	...	...	...	...	38	16	54	...	...	...	...	...	...	...	...	...	...	...	...
BURMA	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26
ASSAM	1	...	6	...	61	20	88	1	1
BENGAL	79	129	189	40	29	1	5	4	1	5	14	...	...	56	...	...	...	1	15	2	12	3	...	2	...	...	35
UNITED PROVINCES	54	57	121	937	457	67	38	36	20	39	39	33	1,898	...	...	1	...	...	...	...	...	26	20	...	1	...	48
PUNJAB	...	...	...	...	7	3	...	...	1	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
N.-W. F. PROVINCES	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BOMBAY	...	...	...	11	1	...	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...
BRAR AND SECUNDERABAD	1	...	...	7	64	...	...	...	...	...	...	...	...	12	84	...	...	...	...	...	...	...	...	...	...	...	...
CENTRAL PROVINCES	...	...	...	24	15	2	...	...	7	11	...	...	...	59	...	...	...	...	...	...	...	...	...	...	...	...	...
MADRAS	1	27	73	31	24	5	4	3	...	1	...	...	...	169	46	...	...	...	...	...	18	2	15	3	2	14	100

* Including Ajmer.

PRISONERS, 1901.

TABLE XLVII.

ENTERIC FEVER by months, jails, groups, and administrations.

TABLE XLVIII.

SIMPLE CONTINUED FEVER by months, jails, groups, and administrations.

JAILS* AND GROUPS.	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.
Mergui	1	...	...	1	...	...	...	...	...	...	...	...	3
Moulmein	1	...	2	...	...	1	...	...	4	...	...	...	1	...	...	1	...	...	...	...	...	3
Rangoon Central (natives)	5	3	...	...	5	...	4	3	5	...	...	33
Bassein Central	1	...	1	...	1	...	...	...	...	...	...	4	...	...	...	4	5	3	...	1	...	...	23
Insein "	1	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS	1	...	...	1	1	1	2	1	...	1	...	...	8	1	5	7	2	4	9	15	7	3	7	5	2	67
Paungdi	1	1	...	...	...	...	...	...	...	...	2
Thayetmyo Central	1	...	...	...	...	...	1	...	1	...	...	...	3
Magwe	1	...	...	...	1
Mandalay Central	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP II.—BURMA INLAND	1	1	...	...	...	...	...	...	...	2	...	1	...	1	2	...	1	...	1	...	...	...	7
Sibsagar	4	1	2	...	...	...	...	7
Dibrugarh	2	...	...	...	...	...	...	2	...	...	...	2
Sylhet	1
GROUP III.—ASSAM	2	...	...	...	...	4	1	4	...	...	...	11
Dacca Central	5	2	5	...	1	...	...	...	...	...	...	...	14
Tipperra	1	...	13	1	1	3	14	6	1	7	4	1	52
Khulna	2	1	...	...	...	...	...	...	...	...	3
Jessore	15	3	...	2	8	8	...	1	1	10	1	49
Alipore Central	1	...	...	...	1	87	55	76	55	68	43	8	...	...	...	...	...	392
Murshidabad	1	1	1	1	...	1	...	3	2	9
Malda	1	1	1	1	...	...	...	...	...	...	...	...	4
Rangpur	3	...	...	...	...	...	...	...	3
GROUP IV.—BENGAL AND ORISSA	1	...	...	...	1	94	73	98	59	74	58	31	6	3	8	17	5	526
A
Ranchi	5	8	5	...	...	...	5	...	3	...	2	...	28
Hazaribagh Central	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B
Champaran	2	...	...	...	...	...	...	...	...	...	...	...	2
Arrah	11	14	...	1	...	...	...	...	...	...	...	26
Ghazipur	1	...	...	1	...	...	...	...	...	...	...	2
Muzaffarpur	2
Hamirpur	1	5	...	...	...	...	6
Unao	2	4	11	2	3	1	3	2	...	...	...	28
Barabanki	4	3	...	3	3	...	...	...	...	...	...	...	13
Hardoi	1	...	4	4	...	...	...	...	...	9
Fatehgarh Central	1	3	2	1	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatehgarh District	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	1
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	1	...	...	1	3	2	2	...	...	...	...	...	10	11	16	20	29	5	11	15	3	5	...	2	...	117
A
Moradabad	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Bijnor	1	...	1	7	14	12	...	...	...	35
Delhi	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B
Jullundur	1	...	...	...	...	...	...	...	1	...	...	...	3	11	6	...	9	2	2	2	1	36
Lahore Central	1	1	...	2	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi	1	...	...	...	...	...	...	...	1
GROUP VI.—UPPER SUB-HIMALAYA	2	1	1	3	...	...	...	...	...	...	7	...	...	3	12	7	1	16	16	14	2	1	72	

* Jails where neither Enteric Fever nor Simple Continued Fever occurred are not shown in these tables. For the annual ratios, see Table XLII.

JAILS, GROUPS, AND ADMINISTRATION.	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																										
Dera Ismail Khan . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C																										
Shikarpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurrachee . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
A																										
Rajkot . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad Central . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...
B																										
Agra Central . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...
C																										
Raipur Central . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...
Rajaghat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Nagpur Central . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Chanda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
B																										
Akola Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	1	3	4	...	11
Buldana . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	3
Verowda Central . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN . . . . .	...	...	...	1	...	...	1	...	1	...	...	...	3	...	2	2	...	3	...	2	...	3	3	4	...	19
A																										
Thana . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	...	1	1	5
Bombay Common . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	15	13	17	7	...	...	...	...	...	...	...	...	52
Mangalore . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore Central . . . . .	...	...	...	...	...	2	...	1	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST . . . . .	...	...	...	...	...	2	2	1	...	...	...	...	5	15	13	17	7	...	...	...	3	...	...	1	1	57
A																										
Bellary . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	6	2	13	
Salem Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Coimbatore Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	5	4	8	3	34	54	11	3	2	2	2	1	129
B																										
Palamcottah . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	16	1	1	1	...	...	...	...	...	1	3	2	25
Madura . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...	...	...	1	...	...	...	...	...	...	7
Trichinopoly Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	7	...	...	...	...	...	...	...	11	...	26
Tanjore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	3	2	7	7
Cuddalore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	4
Vellore Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	9	7	12	6	11	15	14	14	13	13	13	21	148
Madras Penitentiary, Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	4
Nellore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	1	1	1	1	2	2	4	17
Viagapatam . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Berhampur	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA	1	...	...	...	...	...	...	...	...	...	...	...	1	44	18	34	13	45	71	27	18	18	21	41	32	382
Darjeeling . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	1	...	...	...	...	...	...	...	7
GROUP XII.—HILLS . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3	...	1	...	...	...	...	...	...	...	7
INDIA	3	...	4	5	7	5	6	4	4	2	1	...	41	167	130	184	114	146	162	100	56	53	54	72	41	1,279
ANDAMANS . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BURMA	1	...	...	2	2	1	2	1	...	1	...	...	10	1	6	7	3	6	9	16	7	4	8	3	2	74
ASSAM . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1	4	...	...	11
BENGAL . . . . .	...	...	...	...	...	...	...	1	...	1	...	...	2	102	83	117	73	75	59	36	6	6	8	19	5	589
UNITED PROVINCES . . . . .	...	...	1	1	3	2	1	...	1	...	1	...	11	4	8	4	15	6	10	11	10	16	12	...	...	96
PUNJAB . . . . .	...	...	1	1	2	2	...	...	...	...	...	...	6	...	...	...	3	11	7	...	9	2	2	2	1	37
NORTH-WEST FRONTIER PROVINCE . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
BOMBAY . . . . .	...	2	1	...	...	...	1	1	...	...	...	...	5	16	13	18	7	...	6	3	5	...	...	1	1	70
BEHAR AND SECUNDERABAD CENTRAL PROVINCES . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	2	...	2	...	...	3	...	...	...	3	3	4	...	14
MADRAS	1	...	...	...	...	2	1	1	...	...	...	...	5	44	18	34	13	45	71	27	18	18	21	41	32	382

TABLE XLIX.

INTERMITTENT FEVER by months, jails, groups, and administrations.

TABLE L.

REMITTENT FEVER by months, jails, groups, and administrations.

JAILS* AND GROUPS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												TOTAL.	ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												TOTAL.	
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Andamans . . .	672	683	939	998	1,094	1,605	1,589	931	795	822	695	661	11,284	15	11	25	26	31	29	19	23	22	21	20	18	260	
Tavoy . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein . . .	4	3	1	2	7	8	3	1	4	2	3	1	45	1	...	...	...	...	...	...	...	...	...	...	...	5
Shwegyin . . .	5	2	2	1	1	...	2	...	...	...	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungoo . . .	1	1	4	1	5	3	4	6	4	2	2	3	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon Central, natives . . .	19	28	39	65	34	43	41	33	18	8	29	17	374	2	2	...	...	...	...	1	2	2	1	1	...	11
Maebin . . .	...	...	...	2	4	4	2	...	3	3	1	4	23	...	...	...	...	...	...	...	...	...	...	...	...	...
Myaungmyo . . .	...	...	...	7	13	9	1	8	12	27	62	59	198	...	3	3	1	3	...	...	2	3	9	7	...	30
Bassein Central . . .	6	1	5	1	7	5	12	10	4	2	...	...	53	...	...	...	...	...	...	...	...	...	...	...	...	...
Insein . . .	27	7	15	10	12	31	17	20	26	21	30	27	243	...	...	...	...	...	...	...	...	...	...	...	...	...
Henzada . . .	2	2	1	...	6	...	2	5	4	8	10	5	45	...	...	...	...	...	...	...	...	...	...	...	...	...
Myanaung . . .	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Sandoway . . .	...	...	1	...	...	...	...	1	1	1	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyaukpny . . .	16	4	1	4	3	1	8	7	4	6	...	2	56	...	...	...	...	...	...	...	...	...	...	...	...	...
Akyab . . .	6	4	1	2	1	6	1	7	5	6	7	3	49	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	758	735	1,009	1,093	1,189	1,716	1,485	1,037	880	903	839	783	12,432	18	13	27	29	33	29	24	27	26	25	30	26	307	
Paungdi	1	5	7	2	5	20
Prome . . .	1	...	1	1	...	...	2	2	...	...	4	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Thayetmyo Central . . .	3	2	...	...	2	2	6	0	2	1	2	2	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Minba . . .	2	...	...	...	3	1	1	1	1	3	1	2	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Yamethin . . .	...	...	2	...	...	3	...	...	...	1	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . .	...	3	9	...	3	...	4	4	1	2	...	...	26	...	...	...	...	...	...	...	...	...	...	...	...	...
Pagan . . .	...	...	2	...	...	...	2	1	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Myingyan Central . . .	8	9	3	9	2	10	8	7	7	4	4	2	73	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandalay . . .	21	20	120	29	19	15	16	9	10	24	19	9	317	...	...	...	...	...	...	...	...	...	...	...	...	...
Monywa . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo . . .	...	2	...	...	1	4	...	4	...	3	...	2	16	...	...	1	1	2	2	1	...	...	...	...	...	7
Bhamo . . .	3	...	...	1	...	...	2	4	2	2	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Katha . . .	2	2	...	...	...	1	2	...	1	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND . . .	40	38	143	41	27	39	44	45	29	44	34	18	542	...	...	...	1	1	2	2	1	...	...	...	...	7
Cachar . . .	...	...	1	...	1	4	1	4	3	4	...	...	18	...	...	...	...	2	...	...	...	...	...	...	...	...
Sibsagar . . .	...	1	2	2	4	2	...	...	2	...	2	2	16	...	...	...	...	...	...	...	...	...	...	...	...	...
Dibrugarh . . .	2	1	3	4	7	5	1	3	2	1	2	1	32	...	...	...	...	...	...	...	...	...	...	...	...	...
Tezpur . . .	1	1	1	3	5	7	10	7	7	3	8	1	54	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowgong . . .	2	...	...	4	...	...	...	...	5	2	1	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Gauhati . . .	2	1	3	2	5	39	15	8	3	2	...	1	81	...	...	...	...	...	...	...	1	...	...	...	...	1
Dhubri . . .	...	...	...	1	...	2	1	1	1	1	...	1	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Sylhet . . .	10	10	8	20	16	53	48	34	16	16	19	14	264	...	...	1	...	1	...	...	2	...	...	...	...	4
GROUP III.—ASSAM . . .	17	14	18	36	38	112	76	57	39	29	31	20	487	...	...	1	...	3	...	1	2	...	...	...	...	7
Mymensingh . . .	6	4	8	27	21	9	10	7	15	22	8	13	150	...	...	...	1	...	...	...	...	...	...	...	...	...
Dacca Central . . .	17	19	21	26	27	13	12	14	12	13	14	4	192	...	...	...	...	1	...	...	...	...	...	...	...	...
Tippera . . .	2	2	...	...	5	1	...	...	...	3	1	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong . . .	14	8	5	11	25	7	12	11	6	13	11	24	147	...	...	...	...	...	...	...	...	...	...	...	...	...
Noakhali . . .	2	1	...	2	3	4	6	7	16	17	3	2	63	...	...	...	...	...	...	...	...	...	...	...	...	...
Backergunge . . .	7	13	8	8	2	4	15	12	11	11	26	6	125	...	...	...	...	...	...	...	1	...	...	...	...	...
Khulna . . .	1	...	...	...	...	...	6	9	4	1	3	3	27	...	...	...	...	...	...	...	...	...	...	...	...	...
Jessore . . .	5	11	6	6	1	1	3	5	13	21	13	5	90	...	...	...	3	...	...	...	...	...	...	...	...	4
Baraset . . .	7	4	2	3	...	3	3	6	20	24	16	14	102	...	...	1	...	1	...	...	...	...	...	...	...	2
Presidency, Central, (Europeans) . . .	...	1	1	...	...	...	...	1	1	...	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	1
Presidency, Central, (natives) . . .	9	7	8	4	15	17	14	14	10	12	13	26	149	...	...	...	...	...	...	...	...	...	...	...	...	...
Alipore Central . . .	19	31	35	33	14	6	8	23	49	24	31	34	321	...	...	2	...	1	...	...	...	...	...	...	...	...
Hooghly . . .	11	5	7	4	1	6	6	6	5	8	11	11	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Burdwan . . .	13	21	15	11	18	9	11	9	11	13	18	5	154	...	...	...	...	...	...	...	...	1	1	...	...	...
Krishnagar . . .	3	5	2	2	3	...	1	2	2	5	3	4	32	...	...	...	...	...	...	...	...	...	...	...	...	...
Faridpur . . .	30	39	27	10	18	21	17	19	16	8	31	24	260	...	...	...	...	...	...	...	...	...	...	...	...	...
Pabna . . .	3	4	2	1	2	4	...	10	4	14	14	15	73	...	...	...	...	1	...	...	...	...	...	...	...	...
Murshidabad . . .	1	2	3	3	1	...	2	13	8	9	15	14	70	...	...	...	...	1	...	1	...	6	1	...	...	...
Rajshahi Central . . .	30	32	13	3	29	14	26	38	44	81	70	50	450	...	...	...	...	...	...	...	...	...	...	...	...	...
Bogra . . .	1	3	2	1	...	...	2	...	4	1	2	1	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Malda . . .	2	3	3	3	4	6	4	6	5	9	23	13	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinajpur . . .	12	7	7	7	6	5	4	6	4	6	17	9	90	...	...	...	...	1	...	...	...	...	...	...	...	...
Rangpur . . .	10	11	21	12	6	1	2	7	6	13																	

TABLE XLIX—continued.

INTERMITTENT FEVER by months, jails, groups, and administrations.

TABLE L—continued.

REMITTENT FEVER by months, jails, groups, and administrations.

JAILS AND GROUPS.	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	9	5	10	12	7	7	6	7	11	25	17	9	125	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat . . . . .	...	...	5	6	5	1	1	10	6	14	7	7	62	...	...	...	...	...	...	...	...	...	...	...	...	...
Bannu . . . . .	...	1	1	14	3	1	1	12	4	6	7	1	51	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahpur	1	...	4	7	12	2	3	11	10	22	5	3	80	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhang	6	3	1	3	13	10	15	6	6	21	33	28	145	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery Central	81	35	54	59	238	123	59	47	40	133	159	79	1,089	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan Central	47	25	38	87	77	25	21	22	37	54	32	43	508	...	...	...	...	...	...	...	...	...	...	...	...	...
District	12	3	8	19	5	6	8	12	9	21	32	18	153	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan . .	5	1	7	24	29	28	13	10	18	36	31	30	232	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan . .	14	6	6	8	7	10	10	1	22	43	32	48	207	...	...	...	...	...	...	...	...	...	...	...	...	...
C																										
Shikarpur	1	1	1	7	7	3	6	5	24	7	14	2	78	...	...	...	...	...	...	...	...	...	...	...	...	...
Sind Gang	6	...	19	8	7	3	4	9	2	50	40	10	164	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad Central	5	7	17	19	17	4	3	5	8	12	14	11	122	...	...	...	...	...	...	...	...	...	...	...	...	...
Kurrachee	2	1	4	3	2	3	4	6	1	4	4	1	35	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	189	88	175	276	429	226	145	163	198	448	424	290	3,051	...	...	...	...	...	...	...	...	...	...	...	...	15
A																										
Rajkot	10	10	13	8	1	2	5	5	7	1	2	1	65	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmedabad Central	16	3	15	14	13	8	9	29	48	48	15	22	240	...	...	...	...	...	...	...	...	...	...	...	...	3
B																										
Ajmer	5	3	2	10	7	...	3	2	3	2	2	4	43	...	...	...	...	...	...	...	...	...	...	...	...	...
Muttra . . . . .	...	...	1	3	5	3	1	1	4	4	8	5	35	...	...	...	...	...	...	...	...	...	...	...	...	2
Agra Central	57	54	95	58	20	107	128	156	183	117	100	57	11,888	...	...	...	...	...	...	...	...	...	...	...	...	...
District	12	11	12	37	12	12	19	13	13	47	32	16	236	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhansi	7	5	6	10	3	1	4	2	2	28	30	19	117	...	...	...	...	...	...	...	...	...	...	...	...	...
Lalitpur	1	1	...	10	2	1	2	1	10	12	3	1	44	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	108	87	144	150	119	134	171	209	270	259	192	125	1,968	...	...	...	...	...	...	...	...	...	...	...	...	6
A																										
Saugor	2	1	4	6	5	4	6	3	8	15	5	...	59	...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore Central	14	15	13	41	30	10	14	34	37	40	23	17	288	...	...	...	...	...	...	...	...	...	...	...	...	...
Narsinghpur . . . . .	...	...	...	2	1	...	1	2	1	1	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Mandla	2	2	1	...	1	...	2	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...
Bilaspur . . . . .	...	...	...	...	2	...	...	4	1	4	3	2	16	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambalpur	2	1	3	1	1	...	5	...	2	13	4	1	33	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur Central	43	13	29	12	37	52	26	29	130	116	102	33	622	...	...	...	...	...	...	...	...	...	...	...	...	...
Balaghat	4	...	...	1	...	...	1	5	6	11	5	7	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Seoni . . . . .	...	...	...	2	...	...	5	8	10	10	10	12	65	...	...	...	...	...	...	...	...	...	...	...	...	...
Chhindwara . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Hoshangabad	1	2	6	14	5	2	6	9	9	12	5	8	79	...	...	...	...	...	...	...	...	...	...	...	...	...
Nimar	6	2	3	5	2	1	2	...	1	...	3	5	30	...	...	...	...	...	...	...	...	...	...	...	...	...
Betul . . . . .	...	1	1	1	6	2	4	2	4	1	...	2	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagpur Central	51	36	26	25	8	7	12	21	119	52	49	24	430	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhandara . . . . .	...	...	...	1	...	1	1	2	4	4	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Wardha	2	2	...	1	1	1	2	2	6	3	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...
Chanda	1	...	1	...	...	2	4	3	8	3	2	1	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Sironcha . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Secunderabad . . . . .	...	4	6	...	2	2	3	2	1	1	1	2	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Yeotmahl . . . . .	...	...	...	...	...	...	3	...	3	3	1	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Amraoti Central	14	5	2	9	2	5	9	11	35	45	16	16	172	...	...	...	...	...	...	...	...	...	...	...	...	...
Elichpur . . . . .	...	...	1	...	1	...	1	1	1	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Akola Central	14	6	9	20	2	3	7	17	22	17	28	18	163	...	...	...	...	...	...	...	...	...	...	...	...	...
Basim	1	...	...	...	...	...	2	3	2	2	1	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...
Baldana . . . . .	...	1	...	...	...	...	1	1	...	1	2	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Dhulia	13	17	19	7	1	3	16	38	43	20	23	17	217	...	...	...	...	...	...	...	...	...	...	...	...	...
Yerrowda Central	457	381	376	301	122	99	106	140	211	178	186	153	2,710	...	...	...	...	...	...	...	...	...	...	...	...	...
Bijapur	1	3	1	5	3	2	...	...	...	...	1	2	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Deccan Gang	3	...	...	3	3	2	10	18	4	7	1	2	53	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharwar	3	1	4	2	1	1	4	...	1	12	25	7	61	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	634	492	506	459	238	202	251	355	669	575	502	333	5,216	...	...	...	...	...	...	...	...	...	...	...	...	67
Thana																										
Bombay Common	24	14	31	14	8	10	22	20	17	21	10	10	201	...	...	...	...	...	...	...	...	...	...	...	...	...
House of Correction	6	2	33	2	8	6	11	28	19	26	11	15	167	...	...	...	...	...	...	...	...	...	...	...	...	...
Ratnagiri	1	2	...	1	...	...	...	2	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Karwar	2	...	...	...	9	2	1	13	7	1	...	1	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Mangalore	1	...	1	1	...	1	...	...	1	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore Central	5	1	5	9	3	6	7	3	7	1	7	4	58	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST	39	19	70	27	38	47	56	75	57	55	31	31	545	...	...	...	...	...	...	...	...	...	...	...	...	...

JAILS AND GROUPS.	ADMISSIONS FROM INTERMITTENT FEVER IN EACH MONTH.												TOTAL.	ADMISSIONS FROM REMITTENT FEVER IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A																										
Bellary	6	2	68	25	7	4	3	3	...	6	4	26	164	...	...	...	...	...	...	...	...	...	...	...
Salem Central	2	...	...	...	...	...	...	1	2	...	...	5	5	...	...	...	...	...	...	...	...	...	...	...
Coimbatore Central	8	2	4	8	32	45	6	4	3	2	7	1	122	...	...	...	...	...	...	...	...	...	...	10
B																										
Palamcottah	1	...	1	1	...	2	...	1	...	...	...	6	6	...	...	...	...	...	...	...	...	...	...	...
Madura	5	3	2	2	2	4	1	3	...	1	3	8	34	...	...	...	...	...	...	...	...	...	...	...
Trichinopoly Central	27	19	14	12	14	17	14	8	16	19	35	43	238	...	...	...	...	...	...	...	...	...	...	...
Tanjore	1	...	1	3	...	...	...	...	3	3	1	...	12	...	...	...	...	...	...	...	...	...	3	
Cuddalore	3	2	5	2	1	...	1	3	3	1	3	4	28	...	...	...	...	...	...	...	...	...	...	2
Vellore Central	3	4	2	1	3	...	1	...	3	1	...	1	19	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, Central	2	5	7	2	13	4	15	19	15	19	11	12	124	...	...	...	...	...	...	...	...	...	...	...
Nellore	2	1	...	1	...	...	...	...	1	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...
Rajamundry Central	129	117	60	39	7	2	7	10	28	55	56	33	543	...	...	...	...	...	...	...	...	...	...	...
Vizagapatam	3	5	...	3	8	8	5	8	13	5	6	...	64	...	...	...	...	...	...	...	...	...	...	...
Berhampur	2	...	1	1	3	4	5	3	5	9	6	5	44	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	194	160	165	100	90	100	58	63	92	121	132	134	1,409	...	...	...	...	...	...	...	...	...	...	15
Shillong . . . . .	...	...	...	...	...	1	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Darjeeling	3	...	2	6	3	5	4	5	2	3	3	1	37	...	...	...	...	...	...	...	...	...	...	...
Almora . . . . .	...	...	...	...	...	1	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Pauri . . . . .	...	...	...	...	1	...	...	2	1	1	1	1	7	...	...	...	...	...	...	...	...	...	...	...
Simla . . . . .	...	...	...	...	...	1	1	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...
Dharmasala	1	...	1	6	...	...	1	1	2	4	3	4	23	...	...	...	...	...	...	...	...	...	...	...
Abbottabad	2	...	2	4	1	...	...	3	1	1	...	2	16	...	...	...	...	...	...	...	...	...	...	...
Quetta	2	2	2	4	9	1	7	5	4	4	2	2	44	...	...	...	...	...	...	...	...	...	...	...
Mercara	2	...	...	...	1	1	...	...	...	2	1	...	7	...	...	...	...	...	...	...	...	...	...	1
Russellkonda	1	1	...	...	1	...	1	2	1	...	3	...	10	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILLS	11	3	7	20	16	10	15	19	12	15	13	11	152	...	...	...	...	...	...	...	...	...	...	1
INDIA*	3,235	2,477	3,292	3,510	3,713	4,056	3,519	3,771	4,441	4,822	4,220	3,164	44,220	24	25	45	48	62	53	44	40	55	64	58	37	555
ANDAMANS	672	683	939	998	1,094	1,605	1,389	931	795	822	695	661	11,284	15	11	25	26	31	29	19	23	22	21	20	18	260
BURMA	126	90	213	136	122	150	140	151	114	130	178	140	1,600	3	2	2	3	3	1	7	6	5	4	10	8	54
ASSAM	17	14	18	36	38	113	76	58	39	29	31	20	489	1	3	...	1	2	7
BENGAL	388	412	417	563	434	394	475	624	735	750	760	538	6,496	2	2	5	2	6	10	7	3	11	5	7	1	59
UNITED PROVINCES	465	343	487	536	613	516	525	684	975	1,201	879	501	7,725	1	1	1	...	5	4	3	1	16
PUNJAB	634	229	379	522	939	867	489	720	827	921	847	704	8,072	1	1	3	1	5	...	1	1	2	1	23
N.-W. F. PROV- INCE	16	7	25	60	45	37	21	42	40	82	62	49	486	...	1	2	2	5
BOMBAY	550	442	513	394	212	170	216	327	398	392	355	255	4,244	2	6	7	15	3	2	3	5	8	27	19	9	106
BERAR AND SECUN- DERABAD	29	15	19	29	7	12	24	35	64	72	49	39	394	1	1
CENTRAL PROV- INCES	128	75	87	112	101	83	91	124	346	286	217	113	1,763	...	1	1	...	2	5
MADRAS	201	162	171	110	94	107	66	68	101	123	142	138	1,483	1	...	4	...	2	1	2	3	2	1	16

* Including Ajmer, Quetta, and Mercara.

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																										
Chaibassa	1	1	2	1	2	1	2	2	2	2	11	10	12	13	14	2	
Purelia	1	1	4	3	4	1		
Ranchi	1	1	2	1	1	2		
Palamau	2	1	1	2	4	4	17	13	6	5	...		
Hazaribagh Central	2	1	4	2	1	2	2	8	11	23	25	13	18	11	12	25	14	20	24	5		
B																										
Gaya	1	4	2	5	2	14	5	5	13	19	10	3	27	36	14	16	25	9		
Bhagalpur Central	3	3	1	3	2	...	5	3	4	10	1	36	19	16	23	16	26	8	25	32	34	17	15	267		
Monghyr	1	1	1	1	2	5	5	3	7	5	17	12	6	7		
Darbhanga	1	1	3	3	4	3	3	5	4	5	3	5	7		
Champaran	2	1	...	1	4	4	2	3	11	4	2	2	2	9	2	2	37		
Muzaffarpur	1	1	1	3	2	2	2	1	3	4	2	4	6	28		
Patna	1	...	2	2	1	9	9	1	3	5	5	2	2	2	41		
Arrah . . . . .	...	1	3	...	...	...	1	...	...	...	1	6	2	1	5	6	5	3	11	16	7	3	2
Chopra	1	...	...	...	...	...	...	...	...	...	...	2	5	1	8	5	8	5	6	33	28	10	6
Buxar Central	5	6	3	...	7	...	1	...	...	...	...	22	20	13	12	18	26	12	16	40	50	33	20
Korantadih . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	...	2	1	...	...	...	...	...	1	1	...
Ghazipur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	1	...	2	1
Azamgarh	1	...	...	2	...	...	2	1	...	...	...	8	1	3	5	...	...	...	...	2	6	2	...
Kasia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1
Gorakhpur . . . . .	...	...	...	...	...	...	...	...	1	1	...	2	2	2	...	3	1	...	3	1	...	4	...
Basti	1	...	...	1	...	...	...	...	...	...	2	4	2	1	4	1	1	...	1	2	1	1	1
Fyzabad	2	4	1	4	...	...	...	...	...	...	...	11	3	2	2	2	1	1	...	4	5	4	...
Sultanpur . . . . .	...	...	...	1	...	...	1	...	...	...	...	3	...	...	...	...	...	...	...	1	2	1	...
Rai Bareilly . . . . .	...	...	...	...	...	...	1	1	...	...	...	3	...	...	...	...	...	...	...	...	1	2	1
Partabgarh . . . . .	...	...	...	1	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	1
Jaunpur . . . . .	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	2	8	1	...
Benares Central	1	...	...	2	...	...	...	1	...	2	2	8	7	2	...	1	5	1	9	25	13	13	4
" District	1	...	...	...	...	...	...	...	...	...	...	2	5	2	1	...	...	...	1	4	1	5	4
Mirzapur	1	...	1	...	...	...	...	...	...	...	...	8	...	...	...	2	...	...	...	3	...	...	...
Allahabad Central	1	1	1	...	3	1	...	...	...	...	1	8	2	1	4	9	4	7	3	25	42	14	6
" District . . . . .	...	...	1	7	3	2	3	1	...	2	2	21	4	...	...	3	3	2	10	6	7	2	4
Banda	1	1	1	...	1	...	...	...	3	...	...	6	2	...	1	1	1	2	8	4	3	9	7
Fatehpur	1	1	...	4	...	1	...	...	1	1	3	12	...	...	...	1	...	1	6	8	20	19	9
Hamirpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
Orai . . . . .	...	...	3	...	...	...	...	1	1	...	...	5	...	...	...	1	1	...	...	...	...	...	...
Cawnpore	2	4	...	...	1	...	1	1	...	2	...	11	...	...	...	1	1	...	2	1	1	...	...	
Unao . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	5	1	...	1
Lucknow Central	1	1	4	...	3	...	4	...	...	...	1	12	3	2	2	3	3	2	6	68	55	31	10
" District	1	...	...	...	...	...	...	...	1	...	...	2	1	...	1	1	1	2	15	19	1	1	43
Barabanki . . . . .	...	...	...	1	...	...	...	...	...	...	1	1	...	...	...	1	1	2	1	2	1	...	...	
Gonda . . . . .	...	...	...	...	...	...	...	...	...	1	...	5	4	4	1	2	...	...	1	2	2	1	8
Bahraich . . . . .	...	...	1	1	1	...	...	1	...	...	1	5	3	2	...	2	...	...	3	1	6	1	2
Kheri	1	1	1	1	1	2	...	...	1	...	...	8	...	...	1	...	2	...	...	1	3	...	3
Sitapur . . . . .	...	...	1	4	2	...	...	1	1	1	1	11	2	1	2	...	...	...	2	1	...	...	1
Hardoi . . . . .	...	2	...	1	...	...	...	...	...	...	1	4	...	...	1	...	...	2	3	1	4	3	1
Etawah . . . . .	...	2	1	1	...	...	...	...	...	...	...	4	1	1	...	2	...	...	2	3	...	1	2
Mainpuri	2	...	...	...	...	...	...	...	...	...	...	4	1	2	3	3	2	...	...	3	2	8	2
Etah . . . . .	...	...	...	...	1	...	1	...	...	1	2	5	1	...	1	1	...	...	5	2	4	4	4
Fatehgarh Central	3	5	3	5	...	...	...	1	2	1	3	23	9	1	1	6	4	4	5	9	14	21	30
" District	1	...	...	...	...	...	1	...	...	1	3	6	...	...	1	...	1	...	2	4	6	4	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAAGPUR	28	32	24	32	41	10	14	16	18	30	28	312	127	100	143	150	145	94	187	403	459	330	259	165	2,549	
A																										
Shahjahanpur	2	2	4	2	4	1	4	2	3	2	6	3	3	3		
Bareilly Central	1	2	1	2	1	1	1	9	1	1	...	1	3	1	2	1	4	...		
" District	2	1	...	...	...	...	...	1	...	...	...	4	7	6	5	1	2	1	2	9	13	7	10
Budson . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	2	...	...	...	...	1	...
Aligarh	2	5	3	3	4	...	3	1	1	2	24	24	2	2	...	1	1	1	2	1	...	...	...
Belanshahr . . . . .	...	...	1	...	...	...	1	1	...	2	...	5	1	...	...	...	...	...	3	1	3	1	2
Moradabad . . . . .	...	...	...	2	1	...	...	...	...	...	...	6	3	3	...	1	2	3	8	9	11	5	1
Bijnor	1	...	1	...	1	...	1	...	...	...	...	3	1	...	...	...	...	...	...	...	1	2	...
Dehra Dun . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	...
Saharanpur	1	2	4	...	1	...	1	...	...	...	...	9	2	1	...	3	1	...	2	4	...	3	2
Muzaffarnagar . . . . .	...	1	...	1	...	...	...	...	...	...	...	2	1	...	1	...	...	...	...	1	...	1	8
Meerut	1	...	...	...	...	...	1	1	...	...	...	3	2	2	1	9	1	...	4	12	3	2	...
Delhi	4	1	3	...	1	...	2	1	3	1	2	22	5	2	8	2	3	3	2	7	7	2	2			
Rohtak	1	2	1	...	...	...	...	...	1	1	6	2	...	...	1	...	...	...	2	6	5	3	...
Hissar . . . . .	...	1	...	...	...	...	...	...	...	1	1	3	...	...	...	...	...	...	...	...	...	1	...
Karnal	1	...	...	1	...	...	...	...	2	1	3	5	...	...	1	...	...	...	...	1	4	2	...
Umballa	7	...	...	4	2	2	1	3	3	4	1	27	9	2	...	5	10	9	13	11	4	2	3	
B																										
Ludhiana . . . . .	...	1	...	...	...	...	1	...	...	...	...	3	1	...	...	1	...	...	8	15	3	...	...	
Hoshiarpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	2	...	...	1	...	...	...
Jullundur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	...	2	...	...	2	...	...	...
Ferozepore	1	2	...	...	1	...	...	2	...	...	...	11	...	...	2	...	1	1	1	...	2	2	1
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	12	...	1	...	...	...	2	...	...	...	...
Lahore Central	5	4	3	...	1	3	1	...	2	...	...	19	28	13	9	8	9	16	10	18	9	23	15	
" District	1	1	2	1	4	2	...	1	2	1	1	16	6	...	11	4	6	4	3	1	8	5	9			
" Female . . . . .	...	...	...	2	...</																		

TABLE LI.—continued.

PNEUMONIA by months, jails, groups, and administrations.

TABLE LII.—continued.

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.
A																										
Peshawar	1	1	2	4	...	1	3	2	3	4	...	4	2	33
Kohat	4	1	2	2	1	6	...	1	...	6	2	1	1	1	4
Banou	1	...	1	1	...	1	2	14
Shahpur	1	...	1	1	1	...	1	1	5
Jhang	2	...	1	1	1	5	2	1	1	3	1	2	5	6	11	4	3	1	40
Montgomery Central	1	2	...	...	...	...	...	2	4	2	4	15	10	4	3	9	53	83	9	10	18	19	11	13	242
Mooltan Central . . .	3	1	3	3	4	3	...	1	2	...	1	21	9	1	0	4	11	4	4	5	3	4	...	1	51	
District	1	...	...	...	...	...	1	...	1	4	2	9	2	8	1	2	2	4	1	1	10	4	46	10	91
Dera Ismail Khan . . .	1	...	...	...	4	...	1	...	...	1	5	12	...	1	1	1	4	3	4	3	1	8	1	8	35
Dera Ghazi Khan . . .	2	...	...	...	...	...	...	...	1	1	1	5	1	...	2	...	1	1	...	...	...	...	1	...	6
C																										
Shikarpur	9	6	9	7	2	...	2	3	1	9	3	7	58	2	1	...	1	1	2	6	4	5	1	33
Sind Gang	11	10	26	1	...	2	...	2	3	1	13	58	127	...	1	...	1	4	4	18	15
Hyderabad Central . . .	2	1	2	4	...	...	1	...	2	...	6	18	7	...	5	6	2	4	4	11	6	12	17	7	81
Kurrachee . . . . .	...	...	...	...	...	...	...	2	...	2	...	4	2	2	1	...	...	...	1	2	3	...	1	...	12
GROUP VII.—	35	21	43	15	10	6	5	7	10	19	30	86	287	30	19	22	35	80	102	29	49	62	60	97	51	645
A																										
Rajkot . . . . .	...	1	...	...	...	...	2	...	...	...	...	3	...	1	...	...	1	...	...	1	...	...	2	...	5
Ahmedabad Central . . .	2	2	8	6	2	3	...	1	1	4	7	8	44	2	4	1	17	14	12	8	7	73
B																										
Ajmer	3	1	...	1	1	...	...	1	1	...	2	10	3	...	3	...	1	...	...	...	...	...	...	2	9
Muttra . . . . .	...	...	1	1	1	...	...	...	...	...	1	4	1	1	...	...	...	...	...	1	1	1	1	2	8
Agra Central	3	1	3	7	9	5	4	4	5	2	1	6	50	12	10	11	7	11	8	...	4	16	11	12	5	107
District	4	1	1	1	...	...	3	...	1	1	2	14	2	2	...	4	3	2	1	5	1	1	2	3	26
Jhansi	2	1	2	1	...	...	1	...	...	...	...	5	1	2	...	...	...	...	...	1	1	1	3	1	8
Lalitpur	2	1	3	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	1	...	3	...	...	6
GROUP VIII.—	14	8	15	20	13	8	6	9	7	8	9	19	136	21	20	14	11	17	12	9	29	33	29	27	20	242
A																										
Damoh	1	1	1	...	1	6	1	...	3
Saugor	1	1	1	3	2	...	2	1	4	4	...	6	1	1	21
Jubbulpore Central . . .	2	5	2	2	4	1	...	1	1	1	1	21	13	4	4	6	4	2	4	16	5	8	4	4	74	
Narsinghpur	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1	2	1	...	...	...	5
Mandla . . . . .	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	...	...	...	3
Bilaspur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Sambalpur . . . . .	...	...	1	1	...	3	...	...	...	...	...	5	7	1	2	...	2	2	4	3	3	3	...	2	26
Raipur Central	1	...	...	1	...	...	...	...	...	3	7	12	2	3	5	...	1	2	1	4	1	4	4	8	35
Balaghat . . . . .	...	...	...	...	...	...	1	...	...	...	...	1	1	2	1	4	4	...	...	3	2	5	...	1	18
Seoni . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	3
Chhindwara . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	1	1	1	...	...	1	2	5	3	6	3	6	29
Hoshangabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	2	5	...	...	...	...	...	...	...	...	...	...	7
Nimar . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	2	1	...	...	...	...	...	1	...	...	...	1	7
Betul . . . . .	...	...	...	...	2	...	...	...	...	...	...	2	2	1	...	...	...	...	1	1	1	...	...	...	7
Nagpur Central	1	...	2	2	1	1	...	...	...	...	...	7	2	1	2	2	1	2	2	8	2	12	2	...	36
Bhandara . . . . .	...	...	...	...	...	...	...	...	...	...	...	6	6	1	7	2	1	2	7	6	3	1	...	...	36
Chanda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
B																										
Secunderabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	2
Yeotmahl	1	2	1	1	7	1	2	1	1	4	1	...	2	...	12
Amraoti Central	1	...	1	1	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Ellichpur	4	2	1	4	3	...	1	...	...	...	...	15	7	...	...	...	...	...	4	7	2	1	1	3	25
Akola Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	2
Basim	1	1	...	...	...	...	...	1	1	...	...	4	1	...	1	...	...	...	...	1	...	...	...	...	4
Buldana	2	3	5	...	1	...	...	1	1	2	2	17	2	1	4	2	3	7	10	12	4	5	5	4	59
Dhulia . . . . .	...	2	...	2	...	1	1	...	1	...	2	9	18	5	4	2	3	1	2	3	5	8	7	6	54
Yerrowda Central . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	1	...	4
Bijapur . . . . .	...	...	2	...	...	...	...	1	1	...	1	5	...	...	...	...	2	5	12	6	4	3	1	1	34
Deccan Gang	4	2	...	9	8	4	27	3	3	3	4	4	8	8	5	...	2	1	3	47
GROUP IX.—	17	15	8	14	14	4	9	5	7	14	21	25	153	59	27	29	32	24	33	57	103	49	68	35	42	558
DECCAN																										
Thana . . . . .	...	...	2	1	...	...	...	...	...	...	...	3	2	4	5	8	9	6	9	12	3	2	3	2	65
Bombay Common House of Correction	1	3	1	...	...	1	...	...	...	...	...	1	7	1	2	1	3	4	3	...	1	1	2	3	21
Ratnagiri	1	2	2	...	2	...	...	...	...	...	...	7	3	...	...	...	4	2	3	2	4	1	...	...	15
Karwar	3	...	...	1	1	...	...	2	...	...	...	7	1	1	1	...	1	...	3	28	1	...	...	...	38
Mangalore . . . . .	...	...	...	...	...	...	...	...	3	...	1	4	...	...	...	...	1	1	...	...	...	...	...	...	2
Cannanore Central	1	...	3	4	1	1	10	6	2	2	4	1	2	...	1	4	2	...	1	25
GROUP X.—	6	5	8	6	4	1	...	2	...	3	...	3	38	13	9	9	15	20	16	19	49	13	8	5	7	183

JAILS, GROUPS, 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	...	3	...	2	2	1	...	1	1	...	3	14	1	1	6	4	6	4	8	3	7	9	2	2	53
Salem Central	1	...	2	...	...	...	...	...	1	2	3	3	12	...	...	1	...	...	...	1	...	4	2	...	...	8
Coimbatore Central . . . . .	...	...	...	...	...	...	...	1	...	...	2	...	3	2	5	...	1	2	12	9	4	6	...	7	64	
Palamcottah . . . . .	...	...	1	...	...	...	...	2	...	...	...	3	5	4	1	...	2	2	5	3	1	1	5	4	17	
Madura . . . . .	...	...	...	...	...	...	1	...	...	...	...	3	4	3	19	1	4	...	2	5	8	8	4	1	5	
Trichinopoly Central	1	...	...	...	...	...	...	1	3	...	...	...	5	4	...	1	...	...	2	4	9	6	...	...	26	
Tanjore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	3	7	
Cuddalore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	10	6	1	2	1	3	...	2	3	2	...	1	
Vellore Central	2	3	...	2	1	...	...	...	2	3	4	17	5	7	3	4	9	4	4	2	9	17	6	11	81	
Madras Penitentiary, Central	1	...	...	...	1	1	1	...	...	...	3	7	5	1	1	2	2	1	2	6	6	3	4	6	39	
Nellore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	2	
Rajamundry . . . . .	...	2	...	1	...	1	...	...	...	...	...	4	17	16	19	8	16	8	9	11	3	10	18	24	159	
Vizagapatam	4	3	1	2	3	2	2	6	1	1	2	29	4	5	1	2	1	...	2	1	...	1	...	2	19	
Berhampur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	3	2	4	3	...	1	
GROUP XI.—SOUTHERN INDIA	8	5	10	4	8	6	5	8	11	6	9	18	98	58	62	35	29	39	41	48	50	60	67	45	86	620
Shillong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	4
Darjeeling . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	3	4	1	...	2	14
Pauri . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	3
Dharmasala . . . . .	...	1	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	3	...	3	
Abbottabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	...	3
Quetta . . . . .	...	2	...	1	1	...	...	...	...	...	...	4	1	...	...	5	1	1	1	1	...	2	1	...	12	
Mercara . . . . .	...	1	...	1	1	1	...	...	...	...	...	4	...	2	1	...	...	...	...	...	...	...	2	...	5	
Russellkonda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	3	1	1	2	...	...	1	
GROUP XII.—HILLS . . . . .	...	2	2	...	2	2	1	...	...	...	1	...	10	2	3	1	1	8	7	5	7	6	3	6	3	52
INDIA*	155	138	178	129	136	82	86	89	99	143	156	269	1,660	830	640	755	841	1,066	1,065	1,333	1,582	1,373	1,202	1,029	86	12,659
ANDAMANS . . . . .	...	7	16	9	7	10	15	20	23	18	18	16	159	128	114	145	173	277	284	249	150	113	128	97	135	1,993
BURMA	4	6	16	6	1	2	4	3	3	6	6	6	63	45	34	43	39	60	72	99	68	83	46	52	53	694
ASSAM . . . . .	...	...	...	...	...	...	...	...	...	2	...	1	3	6	7	26	33	40	33	43	44	34	47	23	8	344
BENGAL	23	18	20	16	18	6	16	8	15	36	17	40	233	303	263	354	384	377	320	644	735	548	475	425	383	5,231
UNITED PROVINCES	29	36	34	45	48	18	12	27	17	20	25	33	344	63	59	51	63	64	51	63	207	310	225	193	139	1,518
PUNJAB	37	23	17	10	25	28	17	10	15	21	31	39	273	103	32	50	56	142	164	90	129	126	96	106	98	1,192
N.-W. F. PROVINCE	4	1	2	...	4	...	2	...	...	4	7	24	4	3	2	10	8	4	5	10	6	8	6	13	79	
BOMBAY	35	30	55	24	8	7	6	11	10	26	38	55	345	30	23	23	27	33	39	66	117	54	56	57	41	566
BRAR AND SE-CUNDERABAD	6	3	1	5	4	...	2	...	2	3	3	2	31	10	2	2	...	...	...	5	12	4	2	5	3	45
CENTRAL PROVINCES	5	7	2	5	9	3	6	2	2	1	5	8	55	39	17	18	23	14	11	19	57	29	48	17	23	315
MADRAS	9	5	13	8	9	6	5	8	11	9	9	20	112	65	64	37	33	44	47	49	52	66	69	45	88	650

* Including Ajmer, Quetta, and Mercara.

IV.—TROOPS AND PRISONERS, 1901.

TABLE LIII.

DETAIL of DISEASES

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	Men, 60,838.				Women, 2,729.		Children, 5,069.		Present	Enrolled		117,203.	
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
Small-pox	20	1'60	3	...	3	...	12	2	54	4	...	63	10
Cow-pox	1	'03	...	...	...	...	1	...	27	...	...	22	1
Chicken-pox	7	'42	...	...	...	...	45	...	203	...	...	542	...
Measles	24	1'68	...	...	3	...	26	...	240	1	...	110	3
Rubella	1	'07	...	...	...	...	5	...	1	...	...	...	...
Scarlet fever	2	'19	...	...	...	...	...	...	...	...	...	...	...
Typhus	...	...	...	...	...	...	...	...	...	...	...	1	...
Plague	2	'44	1	...	2	...	...	...	69	41	...	50	36
Relapsing fever	...	...	...	...	...	...	...	...	...	...	...	356	14
Influenza	539	18'83	1	1	24	...	20	...	1,232	3	1	2,979	13
Whooping cough	...	...	...	...	...	...	89	4	...	...	...	1	...
Mumps	8	'38	...	...	1	...	4	...	933	1	...	1,207	...
Diphtheria	2	'34	...	...	...	...	...	...	...	...	...	1	...
Cerebro-spinal fever	1	'03	1	...	...	...	...	...	25	21	...	141	108
Simple continued fever	1,486	67'10	4	1	31	...	44	...	595	4	...	1,279	2
Enteric fever	776	117'07	202	52	19	9	31	3	24	15	...	41	20
Mediterranean fever	5	'79	...	...	...	...	...	...	6	...	...	1	1
Cholera	12	'69	12	...	1	1	1	1	33	19	...	206	103
Choleraic diarrhoea	...	...	...	...	...	...	...	...	1	...	...	5	3
Epidemic diarrhoea	...	...	...	...	...	...	...	...	1	...	...	33	1
Dysentery	1,294	95'87	59	58	36	...	78	13	5,359	47	8	12,659	686
Beri-beri	28	2'89	3	16	...	...	...	...	108	13	6	9	2
Ague	17,836	649'11	22	402	334	3	666	1	43,908	120	142	44,220	100
Remittent fever	381	20'69	9	16	20	1	28	3	1,753	154	15	355	76
Phagedæna	5	'01	...	...	...	...	...	...	2	1	...	1	...
Sloughing phagedæna	1	'39	1	...	...	...	...	...	...	...	...	...	...
Hospital gangrene	...	...	...	...	...	...	...	...	...	...	...	1	1
Erysipelas	28	1'64	2	...	1	...	...	...	27	5	...	106	35
Pyæmia	2	'07	...	...	...	...	...	...	2	1	1	10	9
Septicæmia	5	'29	4	...	...	...	...	...	5	3	...	6	4
puerperal	...	...	...	...	2	1	...	...	...	...	...	2	1
Tetanus	1	...	1	...	...	...	...	...	10	9	...	9	9
Tubercle, not defined	...	...	...	...	...	...	...	...	28	...	1	1	...
general	1	'21	...	...	...	...	...	...	1	1	...	4	4
of the brain	...	...	...	...	...	...	...	...	1	1	...	3	3
of the brain and its membranes	2	'06	2	...	...	...	...	...	...	...	...	...	...
of the iris	...	'05	...	...	...	...	...	...	...	...	...	1	1
of the larynx	2	'03	...	1	...	...	...	...	...	...	...	...	...
of the lungs	207	36'01	28	26	10	3	...	...	505	102	73	999	435
of the lungs and spine	...	...	...	...	...	...	...	...	...	...	...	1	...
of the lungs and intestines	...	...	...	...	...	...	...	...	1	...	...	26	15
of the lungs and peritonæum	...	...	...	...	...	...	...	...	...	...	...	1	1
of the lungs and gland-*	...	...	...	...	...	...	...	...	...	...	...	2	1
of the lungs and joints	...	'27	...	...	...	...	...	...	...	...	...	...	...
of the pleura	...	...	...	...	...	...	...	...	2	...	...	...	...
of the fauces	1	'15	...	...	...	...	...	...	...	...	...	...	...
of the intestines	1	'18	1	1	...	...	1	1	...	...	...	56	29
of the liver	...	...	...	...	...	...	...	...	...	...	...	1	1
of the peritonæum	1	...	1	...	...	...	...	...	3	1	1	2	3
of the lymph-glands	12	1'81	...	6	...	...	2	1	32	...	7	20	...
of the kidney	1	'26	...	1	...	...	...	...	...	...	...	...	...
of the testicles	3	'11	...	...	...	...	...	...	2	...	...	2	...
of the bones	3	'10	...	...	...	...	...	...	...	...	...	2	...
of joints	5	1'00	...	4	...	...	1	...	3	1	...	...	...
of the spine	2	'39	...	1	...	...	...	...	1	...	...	...	...
of the skin	...	...	...	...	...	...	...	...	...	...	...	1	...
Leprosy	...	...	...	...	...	...	...	...	16	...	12	139	14
Yaws	...	...	...	...	...	...	...	...	3	...	...	2	...
Syphilis, primary	2,071	205'99	1	2	...	...	...	...	861	2	9	515	...
secondary	3,543	366'49	7	357	3	...	...	...	1,178	5	105	1,334	32
inherited	1	'15	...	...	...	...	3	1	...	...	...	...	...
Gonorrhœa	7,303	513'35	...	23	...	...	...	...	1,532	1	10	457	...
Hydrophobia	2	'01	3	...	...	...	...	...	7	7	...	...	...
Disease dependent on animal parasites, not defined	...	...	...	...	1	...	1	...	...	...	...	1	...
Bothriocephalus latus	...	...	...	...	...	...	...	...	...	...	...	27	...
liguloides	...	...	...	...	...	...	...	...	...	...	...	2	...
Tænia solium	147	4'72	...	...	3	...	12	...	21	...	...	80	...
mediocanellata	1	'01	...	...	1	...	2	...	6	...	...	5	...
marginata	...	...	...	...	...	...	...	...	5	...	...	...	...
Echinococcus hominis	1	'49	...	...	...	...	...	...	...	...	...	1	1
Ascaris lumbricoides	2	'05	...	...	...	...	7	...	29	...	...	61	1
Trichina spiralis	...	...	...	...	...	...	...	...	...	...	...	2	...
Guinea-worm	1	'13	...	...	...	...	...	...	557	...	...	346	1
Dochmius duodenalis	...	...	...	...	...	...	...	...	...	...	...	42	4
Thread-worm	3	'13	...	...	...	...	2	...	1	...	...	5	...
Hæmopsis sanguisuga	...	...	...	...	...	...	...	...	1	...	...	...	...
Pediculus vestimentis	2	'02	...	...	...	...	...	...	...	...	...	...	...
Phthirus inguinalis	8	'15	...	...	...	...	...	...	2	...	...	...	...
Culex anxifer	5	'22	...	...	...	...	...	...	2	...	...	...	...
pulicaris	1	'01	...	...	...	...	...	...	...	...	...	...	...
Scabies	197	9'47	...	...	1	...	6	...	1,106	...	...	675	...
Mycetoma	...	...	...	...	...	...	...	...	...	...	...	2	1
Favus	1	'01	...	...	...	...	...	...	8	...	...	39	...
Ringworm	198	8'98	...	...	...	...	11	...	357	...	2	308	...
Tinea versicolor	21	'91	...	...	...	...	...	...	1	...	...	...	...
Oidium albicans	1	'02	...	...	...	...	1	...	...	...	...	2	...
Surfeit	...	...	...	...	...	...	...	...	...	...	...	48	...
Starvation	...	...	...	...	...	...	...	...	...	...	...	7	1
Scurvy	9	'59	...	1	...	...	...	...	387	8	23	155	6
Alcoholism	256	10'37	6	4	3	...	...	...	4	1	...	...	...
Delirium tremens	11	'63	4	...	1	...	...	...	...	...	...	1	...
Rheumatic fever	47	6'91	2	4	1	...	...	...	40	...	...	14	...
Rheumatism	1,283	92'17	1	46	30	5	...	...	1,899	3	141	1,275	4
Goat	9	'69	...	1	...	...	...	...	3	...	...	...	...
Osteoarthritis	4	'25	...	3	...	...	...	...	4	...	...	3	1
Cyst	15	'63	...	...	2	...	...	...	28	...	1	11	...
Non-malignant new growth, not defined	4	'36	...	...	...	...	...	...	31	...	1	17	...

* Axillary, cervical, mesenteric.

EUROPEAN ARMY OF INDIA.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
Pterygium	3	'13	...	...	...	...	...	10	...	1	4	...	
Lipoma	4	'40	...	...	...	...	...	7	...	...	4	...	
Fibroma	21	'35	...	1	...	...	...	12	...	...	30	2	
Chondroma	2	'13	...	...	...	...	...	...	...	...	1	...	
Osteoma	2	'03	...	1	...	...	...	...	...	...	...	...
Myxoma	4	'22	...	...	1	...	...	3	...	...	...	...
Myoma	...	...	...	...	2	...	...	...	...	...	...	...
Neuroma	...	...	...	...	...	...	...	1	...	...	...	...
Lymphadenoma	1	'04	...	...	...	...	...	...	...	...	...	...
Papilloma	8	'74	...	...	...	...	...	...	...	...	5	...	
Warts	100	11'06	...	1	...	...	...	2	...	...	2	...	
Condyloma	...	...	...	...	...	...	...	1	...	...	...	...
Columnar papilloma	1	'05	...	...	...	...	...	...	...	...	13	...	
Adenoma	3	'16	...	...	...	...	...	...	...	...	...	...
Sarcoma	...	'05	...	1	...	...	...	...	...	...	5	2	
Malignant new growth, not defined	...	...	...	...	1	2	...	9	1	2	12	...	
Sarcoma	...	...	...	...	...	...	...	...	...	...	...	...
Carcinoma	3	'09	3	...	1	1	...	6	2	1	15	15	
Rickets	3	'10	...	2	...	...	5	...	...	...	1	...	
Myxœdema	...	...	...	...	...	...	...	...	...	...	2	...	
Anæmia	73	6'62	...	11	13	...	12	487	7	18	657	27	
Chlorosis	...	...	...	...	...	...	...	...	...	...	1	...	
Idiopathic anæmia	...	...	...	...	...	...	...	2	2	...	7	3	
Purpura	5	'30	...	...	...	...	1	...	...	...	2	1	
Leucocythæmia	...	...	...	...	...	...	...	...	...	...	2	...	
Hodgkin's disease	...	'05	...	1	...	...	...	...	...	...	...	1	
Hæmophilia	1	'01	...	...	...	...	...	1	...	...	...	...
Diabetes mellitus	12	1'93	2	5	...	...	...	16	4	3	7	3	
insipidus	3	'26	...	1	1	...	...	...	...	...	13	2	
Immaturity at birth	...	...	...	...	1	...	6	10	...	...	4	...	
Congenital malformation, not defined	...	...	...	...	...	...	...	1	...	...	3	...	
Other general diseases	...	...	...	...	...	...	...	152	...	...	...	...
Hypospadiac fissure of the urethra	2	'10	...	...	...	...	...	...	...	...	...	...
Teeth deficient	1	'03	...	1	...	...	...	...	...	...	...	...
Congenital phimosi	1	'02	...	...	...	...	7	5	...	...	...	...
Deformity of knee joint	...	...	...	...	...	...	...	...	...	...	1	...	
Debility	1,437	109'42	3	303	752	3	280	4	1,420	10	333	945	34
Old age	...	...	...	...	...	...	...	...	...	...	103	22	...
Multiple neuritis	29	4'08	1	5	4	...	...	17	2	6	1	...	...
Degeneration of nerves	1	...	...	...	...	...	...	...	...	...	...	...	...
Spinal meningitis	...	...	...	...	...	...	...	...	...	...	1	1	...
Pachymeningitis	1	'01	1	...	...	...	...	1	...	...	1	...	...
Myelitis	...	...	...	...	...	...	1	6	3	3	4	2	...
Anterior poliomyelitis	1	'07	...	1	...	...	2	1	3	...	3	...	...
Progressive muscular atrophy	3	'16	...	2	...	...	...	3	...	...	1	...	...
Primary lateral sclerosis	2	'05	...	1	...	...	1	...	...	...	4	...	...
Secondary "	1	'02	...	...	...	...	...	...	...	...	...	...	...
Posterior sclerosis	7	1'15	...	7	...	...	...	5	...	5	16	1	...
Postero-lateral sclerosis	2	'24	...	2	...	...	...	...	...	...	1	...	...
Disseminated	3	'25	...	1	...	...	...	...	...	...	1	...	...
Acute ascending paralysis	...	...	...	...	...	...	...	...	...	...	3	2	...
Cerebral meningitis	8	'43	4	...	...	...	5	4	8	7	1	23	19
Pachymeningitis	5	'99	...	2	...	...	...	1	...	...	1	1	...
Leptomeningitis	3	'04	3	...	...	...	...	...	...	...	2	...	...
Hæmorrhage into the membranes of the brain	...	...	...	...	...	...	...	4	3	...	2	2	...
Abscess of the brain	3	'02	3	...	...	...	...	...	...	...	5	5	...
Sclerosis	5	'07	...	3	...	...	...	...	...	...	...	...	...
Softening	1	'04	...	...	...	...	...	2	...	...	3	3	...
Sanguineous apoplexy	2	'46	3	...	...	...	...	1	...	...	18	17	...
Congestion of the brain	3	'14	1	...	...	...	...	3	2	...	1	1	...
Bulbar paralysis	2	'21	...	1	...	...	...	...	...	...	...	...	...
Internal hydrocephalus	...	...	...	...	...	...	2	...	...	...	...	...	...
Apoplexy	1	'01	1	...	...	...	...	...	...	...	6	9	...
Paralysis	...	...	...	...	...	...	...	29	1	4	4	1	...
Paraplegia	6	1'05	...	3	...	...	...	13	1	1	10	3	...
Hemiplegia	5	1'38	...	5	...	...	...	14	1	2	26	6	...
Local paralysis	10	1'35	...	7	...	...	...	11	...	1	13	...	...
Incomplete paralysis	5	'72	...	4	...	...	...	2	...	1	3	...	...
Bedsores	...	...	...	...	...	...	...	1	...	...	...	...	...
Tremor	5	'30	...	2	...	...	...	2	...	1	...	...	...
Paralysis agitans	1	'32	...	1	...	...	...	...	...	...	5	...	...
Chorea	7	'91	...	1	1	...	3	2	...	...	1	...	...
Cramp	1	'03	...	...	...	...	...	...	...	...	...	...	...
Wry-neck	1	'10	...	...	...	...	...	7	...	...	7	...	...
Facial spasm	...	...	...	...	...	...	...	1	...	...	1	...	...
Writer's cramp	2	'06	...	...	...	...	...	...	...	...	...	...	...
Infantile convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy	125	11'65	1	39	5	...	35	24	76	2	22	158	7
Laryngismus stridulus	...	...	...	...	...	...	2	...	...	...	...	...	...
Vertigo	24	1'02	...	1	1	...	...	10	...	3	3	...	...
Headache	14	'90	...	...	2	...	...	45	...	...	85	...	...
Migrain	3	'10	...	...	...	...	...	...	...	...	...	...	...
Anæsthesia	...	...	...	...	...	...	...	6	...	...	...	...	...
Neuralgia	191	8'74	...	2	16	...	...	259	...	8	194	...	...
Hysteria	7	'39	...	1	13	...	...	50	...	7	9	...	...
Somnambulism	...	...	...	...	...	...	...	1	...	...	...	...	...
Aphasia	...	...	...	...	...	...	...	1	...	1	...	...	...
Stammering	1	'00	...	...	...	...	...	1	...	...	...	...	...
Hiccough	...	...	...	...	...	...	...	1	...	...	1	...	...
Nervous weakness	11	'65	...	...	...	...	...	5	...	...	...	...	...
Other diseases of the nervous system	...	...	...	...	...	...	...	41	...	...	...	...	...
Idiocy	...	...	...	...	...	...	...	7	...	...	...	...	...
Mania	18	3'62	...	20	...	...	...	18	4	4	41	3	...
Melancholia	55	15'77	...	54	...	...	...	9	2	3	20	...	...
Dementia	9	3'61	...	11	...	...	...	2	...	2	9	...	...
General paralysis of the insane	2	'36	...	1	...	...	...	...	...	...	...	...	...
Delusional insanity	8	3'14	...	14	...	...	...	2	...	1	1	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
Conjunctivitis	405	21'78	...	5	14	...	106	...	1,920	...	6	1,546	...
Granular conjunctivitis	3	'38	...	2	...	...	...	...	57	...	...	120	...
Echymosis	2	'05	...	...	...	...	...	...	...	...	...	...	...
Cedema of conjunctiva . . . . .	...	...	...	...	...	...	...	...	5	...	...	...	3
Chronic hyperæmia . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Keratitis	12	'96	...	2	...	...	1	...	31	...	1	57	...
Ulcerative keratitis	28	2'72	...	3	...	...	...	...	181	...	5	271	...
Gangrene of the cornea . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Opacity	3	'24	...	...	...	...	...	...	18	...	5	13	...
Scleritis	4	'65	...	...	...	...	...	...	3	...	...	...	1
Staphyloma of the sclerotic . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3
Iritis	32	3'25	...	1	1	...	...	...	72	...	7	57	...
Synechia	2	'26	...	...	...	...	...	...	...	...	...	...	...
Mydriasis . . . . .	...	...	...	...	...	...	...	...	2	...	1	2	...
Choroiditis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Congestion of the choroid	1	'10	...	1	...	...	...	...	...	...	...	...	...
Atrophy and degeneration of choroid . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Glaucoma . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	8
Hypopyon . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Optic neuritis	3	'52	...	2	...	...	...	...	...	...	1	...	...
Congestion of optic disc	1	'05	...	...	...	...	...	...	2	...	...	...	...
Atrophy and degeneration of optic nerve and papilla	3	'12	...	2	...	...	...	...	...	...	...	...	1
Retinitis	1	'07	...	1	...	...	...	...	7	...	2	...	...
Degeneration and atrophy of retina	2	'17	...	3	...	...	...	...	...	...	...	...	...
Detachment of retina	2	'19	...	...	...	...	...	...	1	...	...	...	...
Lenticular cataract	3	'10	...	1	...	...	...	...	9	...	6	35	...
Capsular . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3
Dislocation of lens . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	2
Hæmorrhage into the vitreous humour	1	'02	...	...	...	...	...	...	...	...	...	...	...
Opacities of vitreous humour . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Panophthalmitis . . . . .	...	...	...	...	...	...	...	...	26	...	8	3	...
Amblyopia and amaurosis	8	'48	...	1	...	...	...	...	13	...	2	4	...
Functional night blindness	3	'10	...	1	...	...	...	...	...	...	...	...	...
Blindness from intense light	1	'24	...	...	...	...	...	...	...	...	...	...	...
Day blindness	1	'02	...	...	...	...	...	...	...	...	...	...	...
Sympathetic irritation . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Ametropia	2	'05	...	...	...	...	...	...	5	...	2	...	...
Myopia	13	1'13	...	8	...	...	...	...	7	...	4	...	...
Hypermetropia	13	'90	...	5	...	...	...	...	4	...	...	...	...
Astigmatism	6	'10	...	5	...	...	...	...	2	...	1	...	...
Anisometropia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Disorders of accommodation	1	'10	...	...	...	...	...	...	...	...	...	...	...
Asthenopia	3	'51	...	1	...	...	...	...	2	...	1	...	...
Squint	4	'09	...	...	...	...	...	...	1	...	...	...	...
Nystagmus . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Abscess of lacrimal gland	1	'02	...	...	...	...	...	...	...	...	...	...	...
Eversion of puncta	1	'04	...	...	...	...	...	...	2	...	...	...	...
Stricture of canaliculi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Chronic dacryo-cystitis . . . . .	...	...	...	...	...	...	...	...	4	...	...	...	1
Abscess of lacrimal sac . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	6
Fistula of	2	'27	...	1	...	...	...	...	...	...	...	...	3
Obstruction of nasal duct	1	'02	...	1	...	...	...	...	...	...	...	...	1
Epiphora . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	8
Blepharitis marginalis	14	'96	...	...	...	...	2	...	3	...	...	...	...
Madarosis . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Stye	14	'37	...	...	...	...	...	...	54	...	...	...	32
Abscess of the eyelids . . . . .	...	...	...	...	...	...	...	...	5	...	...	...	2
Echymosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3
Trichiasis . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Entropion . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	6
Ectropion . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Cedema of the eyelids . . . . .	...	...	...	...	...	...	...	...	4	...	...	...	22
Ptosis . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	3
Hæmorrhage from the orbit	2	'06	...	...	...	...	...	...	...	...	...	...	...
Other diseases of the eye . . . . .	...	...	...	...	...	...	...	...	32	...	...	...	...
Inflammation of the external ear	507	23'90	...	3	5	...	13	...	359	...	3	362	...
Abscess	10	'49	...	...	...	...	...	...	5	...	...	...	7
Caries . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	3
Accumulation in the external meatus of wax and epidermis	4	'13	...	...	...	...	...	...	2	...	...	...	1
Inflammation of the middle ear	44	3'39	...	4	...	...	...	...	68	...	3	65	...
Abscess	30	2'11	...	8	...	...	...	...	11	...	...	...	25
Ulceration of the membrana tympani	2	'10	...	...	...	...	...	...	3	...	...	...	3
Perforation	107	7'26	...	48	...	...	...	...	1	...	...	...	3
Obstruction of Eustachian tube	1	'09	...	...	...	...	...	...	...	...	...	...	...
Tinnitus	1	'02	...	...	...	...	...	...	2	...	...	...	...
Deafness	24	1'18	...	10	...	...	...	...	20	...	18	...	...
Rhinitis	4	'16	...	...	...	...	...	...	14	...	...	...	1
Coryza	7	'07	...	...	...	...	...	...	2	...	...	...	40
Ozæna	5	'33	...	2	...	...	...	...	2	...	...	...	29
Abscess of the nose	2	'08	...	...	...	...	...	...	...	...	...	...	...
Epistaxis	11	'29	...	...	...	...	...	...	4	...	...	...	53
Inflammation of the accessory sinuses	1	'01	...	...	...	...	...	...	...	...	...	...	...
Inflammation of the naso-pharynx	1	'01	...	...	...	...	...	...	8	...	...	...	...
Pericarditis	1	'10	...	...	...	...	...	...	7	4	...	13	11
Adherent pericardium . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Hæmatopericardium . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Hydropericardium . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	1
Endocarditis	3	'23	2	...	...	...	1	...	3	...	...	6	5
Valvular disease of the heart	207	26'81	20	91	1	...	3	...	31	5	10	121	37
Abscess of the muscular substance of the heart . . . . .	...	...	...	...	...	...	...	...	...	...	...	10	...
Fatty degeneration of the muscular substance of the heart	7	'05	8	...	...	...	...	...	3	2	3	12	11
Atrophy of the heart . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Hypertrophy of the heart	6	'46	1	1	...	...	...	...	...	...	...	...	2
Dilatation of the heart	7	1'32	1	...	...	...	...	...	7	1	1	5	1
Aneurysm of the heart	1	'01	1	...	...	...	...	...	...	...	...	...	...
Rapture of the heart . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
Disease of the coronary arteries	...	...	...	...	...	...	...	...	...	...	2	3
Thrombus	1	'03	1	...	...	...	...	...	...	...	2	1
Angina pectoris	1	'14	...	...	1	...	...	...	2	2	4	...
Syncope	5	'07	2	...	...	...	...	...	3	6	3	6
Disordered action of the heart	469	43'60	...	103	5	...	...	...	56	1	20	13
Endarteritis obliterans	...	...	...	...	...	...	...	...	...	1	...	3
Degeneration of arteries	...	...	...	...	...	...	...	...	...	...	1	...
Dilatation of arteries	...	...	...	...	...	...	...	...	3	...	...	...
Aneurysm of arteries	19	2'21	14	5	...	...	...	...	9	1	2	3
Traumatic aneurysm	...	...	...	...	...	...	...	...	...	...	...	3
Thrombosis	4	'15	...	1	...	...	...	...	1	...	1	2
Embolism	3	'26	1	1	...	...	...	...	...	...	...	3
Phlebitis	25	1'55	...	4	2	...	...	...	9	...	1	1
Obstruction of veins	1	'03	...	1	...	...	...	...	2	...	1	...
Thrombosis of veins	20	2'39	...	7	...	...	...	...	2	...	...	2
Phlegma-ia dolens	...	...	...	...	2	...	...	...	...	...	...	...
Phleboliths	1	'07	...	...	...	...	...	...	...	...	...	...
Varix	94	7'55	...	23	6	...	...	...	25	...	32	3
Varicose aneurysm	1	'02	...	...	...	...	...	...	...	...	...	...
Nævus	1	'03	...	...	...	...	...	...	...	...	...	...
Capillary nævus	1	'10	...	...	...	...	...	...	...	...	...	...
Other diseases of the circulatory system	...	...	...	...	...	...	...	...	2	...	...	...
Croup	...	...	...	...	...	4	...	...	...	...	...	...
Hay-fever	...	...	...	...	...	...	...	...	1	...	...	...
Laryngitis	41	1'97	...	3	2	6	...	...	131	1	1	26
Edema of glottis	...	...	...	...	...	...	...	...	...	...	...	1
Aphonia	...	...	...	...	...	...	...	...	...	...	...	1
Paralysis	...	...	...	...	...	...	...	...	...	...	...	1
Tracheitis	...	...	...	...	...	...	...	...	5	...	...	2
Bronchitis	1,343	63'76	1	17	52	329	15	3,262	28	54	2,812	39	
Dilatation of bronchi	...	...	...	...	...	...	...	...	...	...	...	1
Spasmodic asthma	35	2'18	1	7	3	4	...	...	158	1	25	796
Congestion of the lungs	3	'18	...	...	...	...	...	...	7	...	...	8
Hæmorrhage from	...	...	...	...	...	...	...	...	2	1	...	1
Hæmoptysis (not defined)	11	1'00	...	1	...	...	...	...	16	1	...	33
Pulmonary apoplexy	...	...	...	...	...	...	...	...	...	...	...	2
Edema of the lungs	...	...	...	...	...	...	...	...	...	...	...	1
Pneumonia	241	17'01	34	3	10	3	14	1,548	334	4	1,660	473	
Broncho-pneumonia	13	'81	...	...	...	...	2	24	7	...	60	7
Abscess of the lungs	1	'13	1	...	...	...	...	...	1	...	4	4
Gangrene of the lungs	...	...	...	...	...	...	...	...	1	1	6	6
Cirrhosis of the lungs	...	...	...	...	...	...	...	...	1	...	1	1
Phthisis	6	1'82	1	...	...	1	...	...	13	3	2	13
Emphysema	3	'30	...	1	...	...	...	...	6	...	10	2
Pleurisy	92	7'13	3	1	2	1	1	277	15	5	175	14	
Empyema	3	'38	1	...	...	...	...	...	1	1	9	4
Hæmothorax	...	...	...	...	...	...	...	...	...	...	1	1
Hydrothorax	...	...	...	...	...	...	...	...	...	...	1	...
Pneumothorax	...	...	...	...	...	...	...	...	1	...	...	...
Adhesions of pleura	3	'39	...	1	...	...	...	...	1	...	1	...
Other diseases of the respiratory system	...	...	...	...	...	...	...	48	...	...	...	...
Inflammation of lip	1	'02	...	...	...	...	...	...	1	...	...	1
Ulceration of lip	...	...	...	...	...	...	...	...	1	...	...	...
Stomatitis	8	'39	...	...	1	...	13	27	...	...	73	...
Ulceration of the mouth	6	'17	1	...	1	...	1	19	...	...	32	...
Gangrene	...	...	...	...	...	...	...	...	...	...	4	3
Disorders of dentition	...	...	...	...	...	80	9	...	...	...	1	...
" " with convulsions	...	...	...	...	...	6	4	...	...	...	...	...
" " " bronchitis	...	...	...	...	...	2	1	...	...	...	...	...
" " " diarrhœa	...	...	...	...	...	7	2	...	...	...	...	...
Suppuration of the dental pulp	...	...	...	...	...	...	...	1	...	...	...	...
Caries of dentine	63	4'08	...	21	...	2	...	17	...	...	71	...
Necrosis of cementum	...	...	...	...	...	...	...	1	...	...	1	...
Inflammation of the dental periosteum	62	1'33	...	1	2	...	2	15	...	...	2	...
Abscess of the dental periosteum	175	5'06	...	...	6	...	3	161	...	...	339	...
Inflammation of the periosteum and alveoli	6	'23	...	...	...	...	...	7	...	...	9	...
Ulceration of gums	9	'57	...	...	...	...	...	7	...	...	92	...
Caries of alveoli	4	'13	...	...	...	...	...	6	...	...	10	...
Necrosis of "	4	'91	...	...	...	...	...	...	...	...	2	...
Atrophy of "	...	...	...	...	...	...	...	...	...	1	...	...
Malposition of teeth	...	...	...	...	...	1	...	...	...	...	...	...
Too-hache	...	...	...	...	...	...	...	1	...	...	...	...
Glossitis	4	'08	...	...	1	...	1	6	...	...	...	...
Ulceration of tongue	2	'05	...	...	...	...	...	6	...	...	7	...
Sore throat	721	26'39	...	...	19	...	32	212	...	1	96	...
Ulceration of fauces and tonsils	6	'17	...	...	1	...	...	1	...	...	62	...
Follicular tonsillitis	631	21'16	...	...	8	...	33	269	1	...	46	...
Quinsy	53	1'06	1	...	4	...	1	2	...	...	...	...
Hypertrophy of tonsils	6	'22	...	...	...	...	1	1	...	...	...	...
Elongated uvula	...	...	...	...	...	...	...	...	...	...	3	...
Inflammation of salivary glands	3	'08	...	...	...	...	...	8	...	...	17	...
Suppuration	...	...	...	...	...	...	...	2	...	...	...	...
Salivary fistula	...	...	...	...	...	...	...	...	...	...	2	...
Inflammation of the pharynx and œsophagus	6	'21	...	1	...	1	1	25	...	...	4	1
Post-pharyngeal abscess	...	...	...	...	...	...	...	1	...	...	1	...
Ulceration of the pharynx and œsophagus	1	'01	1	...	...	...	...	4	1	...	...	...
Stricture of the pharynx and œsophagus	...	...	...	...	...	...	...	...	...	...	1	...
Dysphagia	1	'01	...	...	...	...	...	...	...	...	...	...
Gastritis	74	3'39	4	2	10	...	5	47	...	1	60	5	
Ulceration of the stomach	4	'46	...	1	1	...	...	5	...	...	14	6
Hæmatemesis	5	'15	...	...	...	...	...	6	...	1	11	3
Melæna	...	...	...	...	...	...	...	...	...	...	3	1
Dilatation of stomach	2	'09	...	...	...	...	...	1	...	...	1	...
Stricture of "	...	...	...	...	...	...	...	...	...	...	1	1
Indigestion	515	18'23	...	8	45	...	7	216	...	3	631	...	
Pyrosis	1	'02	...	...	1	...	...	1	...	...	...	...
Vomiting	1	'01	...	...	2	...	...	...	...	...	1	...
Gastralgia	1	'09	...	...	...	...	...	2	...	...	5	...
Excessive appetite	...	...	...	...	...	...	...	...	...	...	1	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
Other diseases of the urinary system	...	...	...	...	...	...	...	...	7	...	...	...	...
Urethritis	7	'12	...	...	...	...	...	...	5	...	...	...	...
Gleet	1	'02	...	...	...	...	...	...	...	...	...	1	...
Abscess of the urethra	...	...	...	...	...	...	...	...	1	...	...	1	...
Ulcer of the	...	...	...	...	...	...	...	...	5	...	1	...	...
Hæmorrhage from the urethra	1	'09	...	...	...	...	...	...	2	...	...	...	...
Stricture of the urethra	70	5'69	1	4	...	...	...	...	18	...	...	58	...
Urethral fistula	4	'34	...	3	...	...	...	...	4	...	...	3	...
Extravasation of urine	1	'27	...	...	...	...	...	...	...	...	...	7	4
Impacted calculus	...	...	...	...	...	...	...	...	1	...	...	1	...
Inflammation of the prostate	4	'28	...	1	...	...	...	...	1	...	...	...	...
Abscess	...	...	...	...	...	...	...	...	1	...	...	...	...
Hypertrophy	...	...	...	...	...	...	...	...	...	...	...	2	...
Posthitis	...	'14	...	...	...	...	...	...	11	...	...	1	...
Edema of the prepuce	1	'02	...	...	...	...	...	...	...	...	...	1	...
Phimosis	20	1'38	...	...	...	...	...	1	...	...	...	123	...
Paraphimosis	13	'76	...	...	...	...	...	...	7	...	...	13	...
Inflammation of the penis	4	'08	...	...	...	...	...	...	...	...	...	...	...
Balanitis	78	3'37	...	...	...	...	...	...	8	...	...	6	...
Abscess of the penis	...	'13	...	...	...	...	...	...	11	...	...	25	...
Ulcer	178	13'01	...	...	...	...	...	...	70	...	...	1	...
Gangrene	...	...	...	...	...	...	...	...	...	...	...	2	1
Edema	...	...	...	...	...	...	...	...	1	...	...	122	...
Soft chancre	3,921	300'15	...	1	...	...	...	...	627	...	3	4	...
Inflammation of the scrotum	1	'01	...	...	...	...	...	...	...	...	...	15	...
Abscess	...	...	...	...	...	...	...	...	2	...	...	7	2
Sloughing	...	...	...	...	...	...	...	...	2	1	...	1	...
Edema	3	'28	...	...	...	...	...	...	4	...	...	22	...
Soft chancre	...	...	...	...	...	...	...	...	...	...	...	1	...
Pruritus	...	...	...	...	...	...	...	...	2	...	...	5	...
Inflammation of the spermatic cord	...	...	...	...	...	...	...	...	4	...	...	...	...
Hydrocele	4	'28	...	...	...	...	...	...	3	...	...	2	...
Hæmatocele	...	...	...	...	...	...	...	...	...	...	...	1	...
Variococele	34	2'07	...	1	...	...	...	...	6	...	1	1	...
Hæmatocele of the tunica vaginalis	2	'37	...	...	...	...	...	...	48	...	5	140	...
Hydrocele	51	3'31	...	...	...	...	...	...	...	...	...	114	...
Inflammation of the testicle	...	...	...	...	...	...	...	...	...	...	...	71	1
Orchitis	468	30'58	...	6	...	...	...	...	277	...	3	4	...
Epididymitis	11	'87	...	...	...	...	...	...	17	...	1	4	...
Abscess of the testicle	...	...	...	...	...	...	...	...	...	...	...	1	...
Protrusion of tubuli	...	...	...	...	...	...	...	...	...	...	...	1	...
Spermatorrhœa	1	'16	...	...	...	...	...	...	1	...	...	...	...
Inflammation of ovary	...	...	...	...	15	...	...	...	...	...	...	...	...
of Fallopian tube	...	...	...	...	3	...	...	...	...	...	...	...	...
Perimetritis	...	...	...	...	2	...	...	...	...	...	...	...	...
Parametritis	...	...	...	...	6	...	...	...	...	...	...	1	...
Parametric abscess of uterine ligament	...	...	...	...	...	...	...	...	...	...	...	5	...
Metritis (651)	...	...	...	...	10	...	...	...	...	...	...	...	...
Ulcer of the uterus	...	...	...	...	9	...	...	...	...	...	...	...	...
Hypertrophy of the uterus	...	...	...	...	1	...	...	...	...	...	...	...	...
Sub-involution of the uterus	...	...	...	...	1	...	...	...	...	...	...	...	...
Abrasion	...	...	...	...	5	...	...	...	...	...	...	...	...
Displacement and distortions of the uterus	...	...	...	...	...	...	...	...	...	...	...	1	...
Retroversion of the uterus	...	...	...	...	2	...	...	...	...	...	...	1	...
Retroflexion	...	...	...	...	...	...	...	...	...	...	...	1	...
Prolapsus	...	...	...	...	5	...	...	...	...	...	...	...	...
Procidentia	...	...	...	...	2	...	...	...	...	...	...	...	...
Stricture	...	...	...	...	1	...	...	...	...	...	...	1	...
Prolapse of the vagina	...	...	...	...	...	...	...	...	...	...	...	...	...
Inflammation of the vulva	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess	...	...	...	...	2	...	...	...	...	...	...	1	...
Noma of the labia	...	...	...	...	...	...	...	...	...	...	...	3	...
Amenorrhœa	...	...	...	...	6	...	...	...	...	...	...	3	...
Dysmenorrhœa	...	...	...	...	26	...	1	...	...	...	...	13	...
Menorrhagia	...	...	...	...	16	...	...	...	...	...	...	1	...
Metrorrhagia	...	...	...	...	5	...	1	...	...	...	...	16	...
Leucorrhœa	...	...	...	...	1	...	...	...	...	...	...	...	...
Hydrorrhœa	...	...	...	...	6	...	...	...	...	...	...	1	...
Cramp and spurious labour pains	...	...	...	...	2	...	...	...	...	...	...	7	1
Hæmorrhage from the uterus during pregnancy	...	...	...	...	67	...	...	...	...	...	...	1	...
Abortion	...	...	...	...	...	...	...	...	...	...	...	1	...
Vesicular mole	...	...	...	...	...	...	...	...	...	...	...	1	...
Atony of the uterus	...	...	...	...	...	...	...	...	...	...	...	...	...
Mechanical obstacle to the expulsion of the fœtus	...	...	...	...	2	...	...	...	...	...	...	1	...
Retention of the placenta	...	...	...	...	1	...	...	...	...	...	...	...	...
Still-birth	...	...	...	...	...	...	...	...	...	...	...	...	...
Asphyxia of infant	...	...	...	...	...	...	1	1	...	...	...	...	...
Retention of the placental fragments	...	...	...	...	1	...	...	...	...	...	...	...	...
Metritis (716)	...	...	...	...	3	...	...	...	...	...	...	...	...
Abscess of the areola	...	...	...	...	4	...	...	...	...	...	...	2	...
Mastitis	...	...	...	...	5	...	...	...	...	...	...	...	...
puerperal	...	...	...	...	2	...	...	...	...	...	...	1	...
Suppuration of mammary gland	...	...	...	...	3	...	...	...	...	...	...	2	...
puerperal	...	...	...	...	4	...	...	...	...	...	...	...	...
Sinus	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyperæmia	...	...	...	...	2	...	...	...	...	...	...	2	...
Inflammation of the male breast	1	'15	...	...	...	...	...	...	3	...	...	1	1
Abscess	...	...	...	...	...	...	...	...	...	...	...	2	...
Ostitis	3	'31	...	1	...	...	...	...	16	...	...	3	...
Periostitis	50	4'24	...	6	1	...	1	...	61	...	5	30	...
Chronic abscess of bones	...	...	...	...	...	...	...	...	...	...	...	1	...
Caries of bones	9	'92	...	...	...	...	...	1	11	...	2	15	...
Necrosis	9	'83	...	1	...	...	...	...	14	...	1	31	3
Hypertrophy of bone	2	'07	...	1	...	...	...	...	1	...	...	...	...
Un-united fracture or false joint	...	...	...	...	...	...	...	...	...	...	...	...	...
Synovitis	422	27'43	...	23	2	...	...	...	440	1	15	140	2
Ankylosis	11	'74	...	7	...	...	...	...	6	...	6	5	...
Dislocation of articular cartilage	16	1'14	...	4	...	...	...	...	2	...	...	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.							NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.		
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
Loose body	3	'16	...	...	...	...	...	2	...	...	...	...	...
Relaxation of ligaments	4	'37	...	...	...	...	...	...	...	...	...	...	...
Dislocation of joints . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Knock knee	1	'06	...	...	...	...	...	...	...	...	...	...	...
Caries of spine	2	'08	1	...	...	...	...	1	...	1	...	...	...
Necrosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Psoas, lumbar, post-pharyngeal, and other abscesses	1	...	...	...	...	...	...	1	...	1	...	1	1
Posterior curvatura of the spine	1	'17	...	1	...	...	...	1	...	2	...	...	...
Angular	1	'21	...	1	...	...	...	2	...	...	...	1	...
Lateral . . . . .	...	...	...	1	...	...	...	2	...	1	...	...	...
Inflammation of muscles	1	'28	...	...	...	...	...	3	...	...	...	4	...
Suppuration	1	'36	...	1	...	...	...	...	...	...	...	4	...
Atrophy	1	'39	...	...	...	...	...	4	...	...	...	...	...
Pseudo-hypertrophic paralysis . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...
Idiopathic muscular atrophy . . . . .	...	...	...	...	...	...	...	3	...	4	...	...	...
Myalgia	86	3'40	...	...	1	...	...	328	...	17	143	...	...
Contracture of fasciæ	5	'20	...	1	...	...	...	8	...	...	...	1	...
Inflammation of tendons	2	'03	...	...	...	...	...	2	...	...	...	...	...
Adhesions of tendons	1	'04	...	...	...	...	...	2	...	...	...	...	...
Contraction	17	1'29	...	3	...	...	...	1	...	...	...	...	...
Tenosynovitis	6	'43	...	...	...	...	...	9	...	...	...	16	...
Thecal abscess . . . . .	...	...	...	...	...	...	...	6	...	...	...	4	...
Ganglion	4	'20	...	...	...	...	...	7	...	...	...	4	...
Inflammation of bursa	24	1'57	...	1	...	...	...	13	...	...	...	2	...
Abscess	4	'09	...	...	...	...	...	6	...	...	...	...	...
Bunion	8	'51	...	1	...	...	...	5	...	...	...	...	...
Bursal cyst	2	'08	...	...	...	...	...	1	...	...	...	...	...
" tumour	1	'05	...	...	...	...	...	...	...	...	...	...	...
Club-foot	1	'02	...	...	...	...	1	...	...	...	...	...	...
Flat-foot . . . . .	...	...	...	5	...	...	...	7	...	2	...	...	...
Hallux valgus	14	'64	...	...	...	...	...	7	...	...	...	...	...
" with hammer toe	3	'53	...	2	...	...	...	...	...	...	...	...	...
Hammer toe	1	'06	...	...	...	...	...	...	...	...	...	...	...
Inflammation of the connective tissue	29	2'19	...	1	...	...	...	2	...	...	...	...	...
Abscess	496	22'13	...	6	2	...	9	427	...	1	493	2	6
Gangrene	727	33'80	...	1	8	...	13	1,563	2	7	4,266	8	3
Eidema	1	'05	...	...	...	...	...	2	...	2	11	...	1
Elephantiasis	14	'79	...	1	...	...	...	45	...	1	6	...	...
Undue formation of fat . . . . .	...	...	...	...	...	...	...	2	...	1	...	...	...
Erythema	1	'05	...	1	...	...	...	...	...	...	...	...	...
Roseola	10	'37	...	...	...	...	...	6	...	...	7	...	...
Pityriasis rosea	3	'08	...	...	...	...	...	...	...	...	2	...	...
Urticaria	2	'09	...	...	...	...	...	1	...	...	...	...	...
Prickly heat	39	1'48	...	1	...	6	...	83	...	...	96	...	...
Eczema	12	'42	...	...	...	1	...	3	...	...	42	...	...
Impetigo	371	21'41	...	1	4	46	...	419	1	1	365	...	...
Prurigo	26	1'06	...	...	...	...	...	29	...	...	16	...	...
Lichen	1	'04	...	...	...	...	...	3	...	...	2	...	...
Psoriasis	4	'13	...	...	...	...	...	8	...	...	1	...	...
Miliaria	31	3'65	...	...	...	...	...	17	...	...	20	...	...
Herpes	1	'02	...	...	...	...	...	1	...	...	...	...	...
Zona	39	1'19	...	...	2	1	...	86	...	...	56	...	...
Pemphigus	28	'98	...	...	...	1	...	62	...	...	49	...	1
Dermatitis herpetiformis	141	5'13	...	2	...	12	...	11	1	...	10	...	...
Acne . . . . .	...	...	...	...	...	...	...	3	...	...	1	...	...
Sycosis	15	1'16	...	...	...	...	...	12	...	...	3	...	...
Seborrhœa	17	'70	...	1	...	...	...	8	...	...	...	...	...
Ecthyma	1	'03	...	...	...	...	...	...	...	...	...	...	...
Icthyosis . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	...
Sclerodermia	2	'38	...	1	...	...	...	1	...	...	...	...	...
Leucodermia . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	...
Alopecia	1	'18	...	...	...	...	...	3	...	...	...	...	...
Area	1	'01	...	...	...	...	...	...	...	...	...	...	...
Chilblain . . . . .	...	...	...	...	...	...	...	1	...	...	1	...	...
Frostbite . . . . .	...	...	...	...	...	...	...	2	...	2	...	...	...
Ulcer . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Cicatrices	529	30'25	...	...	10	7	...	3,288	...	2	3,339	...	...
Fissure	2	'21	...	...	...	...	...	1	...	...	...	...	...
Boil	1,024	40'76	...	...	6	19	...	2,855	...	1	2,358	...	...
Carbuncle	13	'76	...	...	...	...	...	33	...	...	248	...	1
Gangrene . . . . .	...	...	...	...	...	...	...	17	...	1	1	...	...
Whitlow . . . . .	...	...	...	...	...	2	...	380	...	...	554	...	...
Onychia	205	7'17	...	1	2	...	...	17	...	...	26	...	...
Keratosis pilaris	177	7'57	...	...	2	...	...	...	...	...	1	...	...
Corn . . . . .	...	...	...	...	...	...	...	6	...	...	2	...	...
Ainham	24	'95	...	...	...	...	...	1	...	...	1	...	...
Cheloid	1	'08	...	...	...	...	...	...	...	...	...	...	...
Wen	25	'97	...	...	...	...	...	5	...	...	17	...	...
Adenoma sebaceum . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	...
Molluscum contagiosum . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	...
Hyperidrosis	8	'30	...	...	...	...	...	1	...	2	1	...	...
Bromidrosis	4	'10	...	...	...	...	...	...	...	...	...	...	...
Lupus	8	'54	...	...	...	...	...	2	...	...	2	...	...
Delhi boil . . . . .	...	...	...	5	...	...	...	...	...	...	1	...	...
Mycosis fungoides	7	'91	...	...	...	1	...	63	...	...	...	...	...
Other local diseases . . . . .	...	...	...	...	...	...	...	514	...	...	...	...	...
ACCIDENTAL:—													
Heat-stroke	70	3'15	15	...	...	2	1	6	2	...	255	39	...
Sun-stroke	25	1'00	3	1	1	...	...	25	5	1	20	13	...
Heat-apoplexy	62	4'11	19	5	1	1	...	21	14	...	58	25	...
Effects of cold . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	...
Effects of chemical irritants and corrosives . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	...
Lightning stroke	1	'05	1	...	...	...	...	...	...	...	...	...	...
Multiple injury	14	'64	13	1	...	...	...	5	...	2	29	1	...

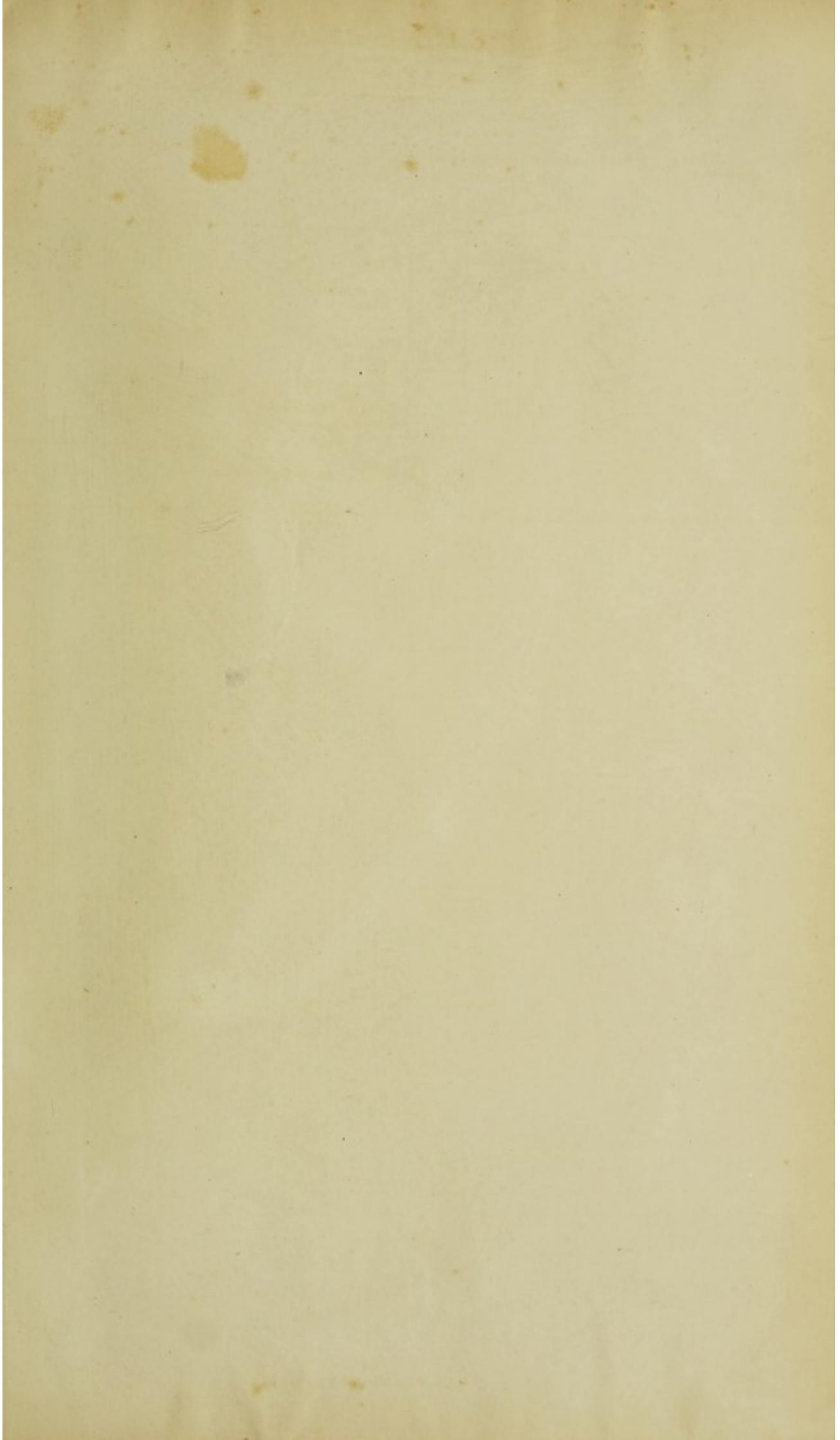
DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.
	Admissions.	Constantly sick.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.					
ACCIDENTAL—contd.													
Suffocation from submersion . . . . .	...	...	17	...	...	...	...	...	...	...	1	6
" " strangulation . . . . .	...	...	1	...	...	...	...	...	6	...	1	1
" " plugging of air-passages with foreign substances . . . . .	...	...	5	...	...	...	...	...	...	...	...	1
Suffocation from overlaying . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Privation	1	'02	...	...	...	...	1	...	...	...	...	...
Shock . . . . .	...	...	...	...	...	...	...	...	...	...	2	6
Burns and scalds (general and local)	53	1'84	...	...	1	...	11	1	291	...	335	2
Frost-bite . . . . .	...	...	...	...	...	...	...	...	2	...	...	...
Abrasions	539	17'67	...	...	...	...	4	...	1,693	...	136	...
Contusions	1,332	54'92	2	5	7	...	16	...	2,530	...	1,196	2	
Wounds	1,649	72'14	...	13	6	...	24	...	3,014	1	3,851	3	
" from gunshot	26	1'70	2	8	...	...	...	...	150	7	13	1
Strains and sprains	1,513	65'67	...	11	5	...	3	...	1,283	5	289	...	
Dislocation of spine . . . . .	...	...	1	...	...	...	...	...	9	...	2	...
" of other bones	60	3'71	...	6	2	...	2	...	99	...	8	56	
Rupture of muscles, tendons, and ligaments	5	'19	...	...	...	...	...	...	5	...	...	2
Fracture of the vault of the skull	9	'84	3	3	...	...	1	...	...	...	1	1
" " base of the skull	5	'15	3	...	...	...	...	...	4	5	...	1
" " spine	1	'01	1	...	...	...	...	...	...	...	...	1
" " other bones	329	37'80	...	21	1	...	18	...	331	...	33	359	
Foreign bodies in tissues and organs	6	'23	1	...	...	...	1	...	15	...	...	15
Effects of irritants and corrosives	2	'13	...	...	...	...	...	...	2	...	...	32
" mechanical injuries . . . . .	...	...	...	...	...	...	...	...	8	...	...	...
Rupture of arteries . . . . .	...	...	...	...	...	...	...	...	2	...	...	...
Wound of skull with fracture	1	...	1	...	...	...	...	...	2	...	...	...
Concussion of brain	28	1'97	...	2	...	...	2	...	42	...	1	1
Laceration	1	'13	...	1	...	...	...	...	3	1	...	1
Compression	5	'43	4	...	...	...	...	...	1	...	1	2
Contusion of eyeball with detachment of retina	1	'07	...	...	...	...	...	...	...	...	...	...
Rupture of membrana tympani . . . . .	...	...	...	...	...	...	...	...	...	...	3	...
Fracture of ribs with injury to lung	1	'10	...	...	...	...	...	...	...	...	...	...
Rupture of heart . . . . .	...	...	...	...	...	...	...	...	...	...	2	2
Concussion of spinal cord	4	'41	...	1	...	...	...	...	2	...	1	1
Compression of	2	'10	...	1	...	...	...	...	...	...	...	...
Contusion of abdomen with rupture of viscera . . . . .	...	...	...	...	...	...	...	...	2	2	...	...
Rupture of stomach . . . . .	...	...	...	...	...	...	...	...	1	1	...	...
" spleen	1	...	2	...	...	...	...	...	2	5	5	8
" urethra from fracture of . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
" pelvis	1	'01	1	...	...	...	...	...	1	...	...	...
" kidney	1	'14	...	...	...	...	...	...	...	...	...	...
" bladder . . . . .	...	...	...	...	...	...	...	...	1	...	...	...
Crush of testicle	1	'05	...	...	...	...	...	...	...	...	...	...
Separation of epiphyses . . . . .	...	...	...	...	...	...	...	...	1	...	...	...
Green-stick fracture	1	'24	...	1	...	...	1	...	...	...	...	...
Internal derangement of joints . . . . .	...	'03	...	...	...	...	...	...	...	...	...	...
Killed by the fall of a roof . . . . .	...	...	...	...	...	...	...	...	...	1	...	...
Other injuries . . . . .	...	...	...	...	...	...	...	...	576	...	...	...
POISON :—													
Arsenic . . . . .	...	...	...	...	...	...	...	...	3	1	...	...
Mercury . . . . .	...	...	...	...	...	...	...	...	5	...	...	...
Lime . . . . .	...	...	...	...	...	...	...	...	...	...	2	...
Oxalic acid . . . . .	...	...	...	...	...	...	...	...	1	1	...	...
Acetanilide	1	'02	...	...	...	...	...	...	...	...	...	...
Alcohol	1	'02	1	...	...	...	...	...	...	1	...	...
Hyoscyamus . . . . .	...	...	...	...	...	...	...	...	1	1	...	...
Indian hemp . . . . .	...	...	...	...	...	...	...	...	5	1	1	...
Lathyrus . . . . .	...	...	...	...	...	...	...	...	...	...	1	...
Opium . . . . .	...	...	...	...	...	...	...	...	11	3	9	4
Poisonous fungi . . . . .	...	...	...	...	...	...	...	...	...	...	3	1
Marking nut . . . . .	...	...	...	...	...	...	...	...	2	...	...	...
Thorn apple . . . . .	...	...	...	...	...	...	...	...	2	...	1	...
Decayed and poisonous food	1	'02	...	...	1	...	...	...	...	...	...	...
Ptomaines	11	'31	4	...	...	...	3	...	...	...	1	1
Lobster	1	'01	...	...	...	...	...	...	...	...	...	...
Chloroform vapour	2	...	2	...	...	...	...	...	...	...	...	...
Irritant poison . . . . .	...	...	...	...	...	...	...	...	...	...	3	1
Not defined . . . . .	...	...	...	...	...	...	...	...	10	...	...	...
POISONED WOUNDS :—													
Poisoned wound by dog	67	3'15	...	...	3	...	7	...	3	...	4	...
" " jackal . . . . .	...	...	...	...	...	...	...	...	9	...	...	...
" " snake	2	'05	...	...	...	...	...	...	9	...	11	3
" " rat . . . . .	...	...	...	...	...	...	...	...	2	...	1	...
" " scorpion	3	'07	...	...	...	...	...	...	7	...	...	...
" " centipedes	2	'10	...	...	...	...	...	...	...	...	31	...
" " fish	1	'01	...	...	...	...	...	...	1	...	1	...
" " stinging insects . . . . .	...	...	...	...	...	...	...	...	6	1	3	...
" " septic matters	2	'04	...	...	2	1	...	...	5	...	...	...
" " vegetable substances	1	'11	...	...	...	...	...	...	...	...	...	...
" " not defined . . . . .	...	...	...	...	...	...	...	...	6	...	...	...

DISEASES.	TROOPS ON FIELD SERVICE.				DISEASES.	TROOPS ON FIELD SERVICE.			
	EUROPEAN TROOPS.		NATIVE TROOPS.			EUROPEAN TROOPS.		NATIVE TROOPS.	
	Admissions.	Deaths.	Admissions.	Deaths.		Admissions.	Deaths.	Admissions.	Deaths.
Primary lateral sclerosis	...	...	1	...	Obstruction of lymphatics	...	...	1	...
Cerebral meningitis	1	1	6	6	Goitre	...	...	1	...
Hæmorrhage into the brain	...	...	2	1	Acute nephritis	...	...	2	...
Apoplexy	...	...	1	1	Calculus in kidney	...	...	1	...
Paralysis	...	...	5	...	Inflammation of the bladder	1	...	4	...
Hemiplegia	...	...	2	1	Calculus in the bladder	...	...	1	...
Occupation neurosis	1	...	...	...	Irritability of the bladder	1	...	...	...
Epilepsy	2	...	2	...	Retention of urine	...	...	1	...
Neuralgia	8	...	36	...	Urethritis	...	...	1	...
Mania	1	...	1	...	Urethral fistula	...	...	2	...
Melancholia	...	...	1	...	Balanitis	...	...	1	...
Dementia	...	...	5	...	Ulcer of the penis	1	...	4	...
Conjunctivitis	10	...	70	...	Soft chancre	46	...	46	...
Granular conjunctivitis	...	...	2	...	Hæmatocele of the spermatic cord	...	...	1	...
Keratitis	...	...	5	...	Varicocele of the spermatic cord	3	...	...	...
Ulcerative keratitis	1	...	11	...	Hydrocele of the tunica vaginalis	...	...	1	...
Iritis	2	...	4	...	Orchitis	11	...	16	...
Degeneration and atrophy of retina	...	...	1	...	Epididymitis	...	...	1	...
Lenticular cataract	1	...	...	...	Ostitis	...	...	1	...
Functional night-blindness	...	...	1	...	Periostitis	...	...	4	...
Stye	...	...	2	...	Caries of bones	...	...	1	...
Inflammation of the external meatus	4	...	13	...	Necrosis	...	...	2	...
Inflammation of the middle ear	1	...	3	...	Synovitis	7	...	42	...
Deafness	...	...	3	...	Idiopathic muscular atrophy	...	...	1	...
Rhinitis	...	...	2	...	Myalgia	...	...	9	...
Coryza	1	...	...	...	Ganglion	...	...	1	...
Inflammation of the accessory sinuses of the nose	...	...	2	...	Bunion	...	...	1	...
Valvular disease of the heart	4	...	2	1	Hammer toe	2	...	...	...
Angina pectoris	1	1	...	...	Inflammation of the connective tissue	5	...	27	...
Syncope	...	...	1	1	Abscess of the connective tissue	7	...	65	...
Disordered action of the heart	6	...	1	...	Erythema	...	...	2	...
Aneurysm	...	...	3	1	Erythema	...	...	4	...
Embolism	...	...	...	1	Urticaria	...	...	12	...
Phlebitis	...	...	1	...	Eczema	1	...	...	...
Thrombosis of the veins	2	...	2	...	Impetigo	1	...	...	...
Varix	3	...	2	...	Psoriasis	1	...	...	...
Laryngitis	1	...	25	10	Herpes	...	...	8	...
Bronchitis	25	...	658	10	Zona	...	...	6	...
Spasmodic asthma	...	...	11	...	Acne	1	...	...	...
Hæmoptysis	1	...	...	...	Chilblain	...	...	20	...
Œdema of the lungs	...	...	1	...	Ulcer	6	...	90	...
Pneumonia	7	...	230	87	Cicatrices	...	...	1	...
Broncho-pneumonia	...	...	14	...	Boil	11	...	55	...
Phthisis	1	...	16	3	Carbuncle	...	...	1	...
Pleurisy	2	...	50	3	Gangrene	...	...	1	1
Stomatitis	...	...	4	...	Whitlow	2	...	7	...
Caries of dentine	1	...	1	...	Onychia	1	...	...	...
Gum-boil	5	...	7	...	Corn	...	...	1	...
Suppuration of the gums	...	...	1	...					
Ulceration of the gums	...	...	1	...	Accidental:—				
Sore throat	6	...	8	...	Heat-stroke	...	1	...	...
Follicular tonsillitis	9	...	23	...	Sun-stroke	...	...	1	...
Quinsy	...	...	4	...	Heat-apoplexy	...	...	1	1
Inflammation of the pharynx	...	...	3	...	Effects of cold	...	...	1	...
Gastritis	2	...	1	...	Suffocation from submersion	...	...	1	4
Hæmatemesis	1	...	...	...	" " carbonic acid gas	...	...	...	1
Indigestion	4	...	34	...	Burns and scalds (general and local)	4	...	44	...
Enteritis	...	...	4	...	Frost-bite	...	...	11	...
Typhlitis	...	...	4	1	Abrasions	2	...	16	...
Concretions	...	...	1	...	Contusions	27	...	110	...
Sprue	2	...	...	...	Wounds	15	...	95	...
Hernia	1	...	8	...	" gunshot	...	...	21	...
Constipation	...	...	4	...	Strains and sprains	20	...	37	...
Colic	4	...	26	...	Dislocations	2	...	3	...
Diarrhœa	16	...	138	1	Fracture of the base of the skull	...	...	...	1
Fissure of the anus	...	...	1	...	Fracture of other bones	5	...	36	...
Fistula in ano	1	...	5	...	Concussion of the brain	...	...	1	...
Piles	3	...	27	1	Rupture of the urethra	1	1	1	...
Hepatitis	5	...	11	...	Killed by a crocodile	...	...	...	1
Abscess of the liver	1	...	3	...	" by the fall of a wall	...	...	...	2
Congestion of the liver	1	...	...	...		
Jaundice	3	...	14	...	Poison:—				
Gallstones	...	...	3	...	Alcohol	...	...	1	...
Peritonitis	...	...	5	5	Hydrate of chloral	...	...	1	...
Ascites	...	...	1	1					
Inflammation of lymph glands	13	...	24	1					
Suppuration of "	...	...	6	...					
Hypertrophy of "	...	...	2	...					
Inflammation of lymphatics	1	...	1	1					

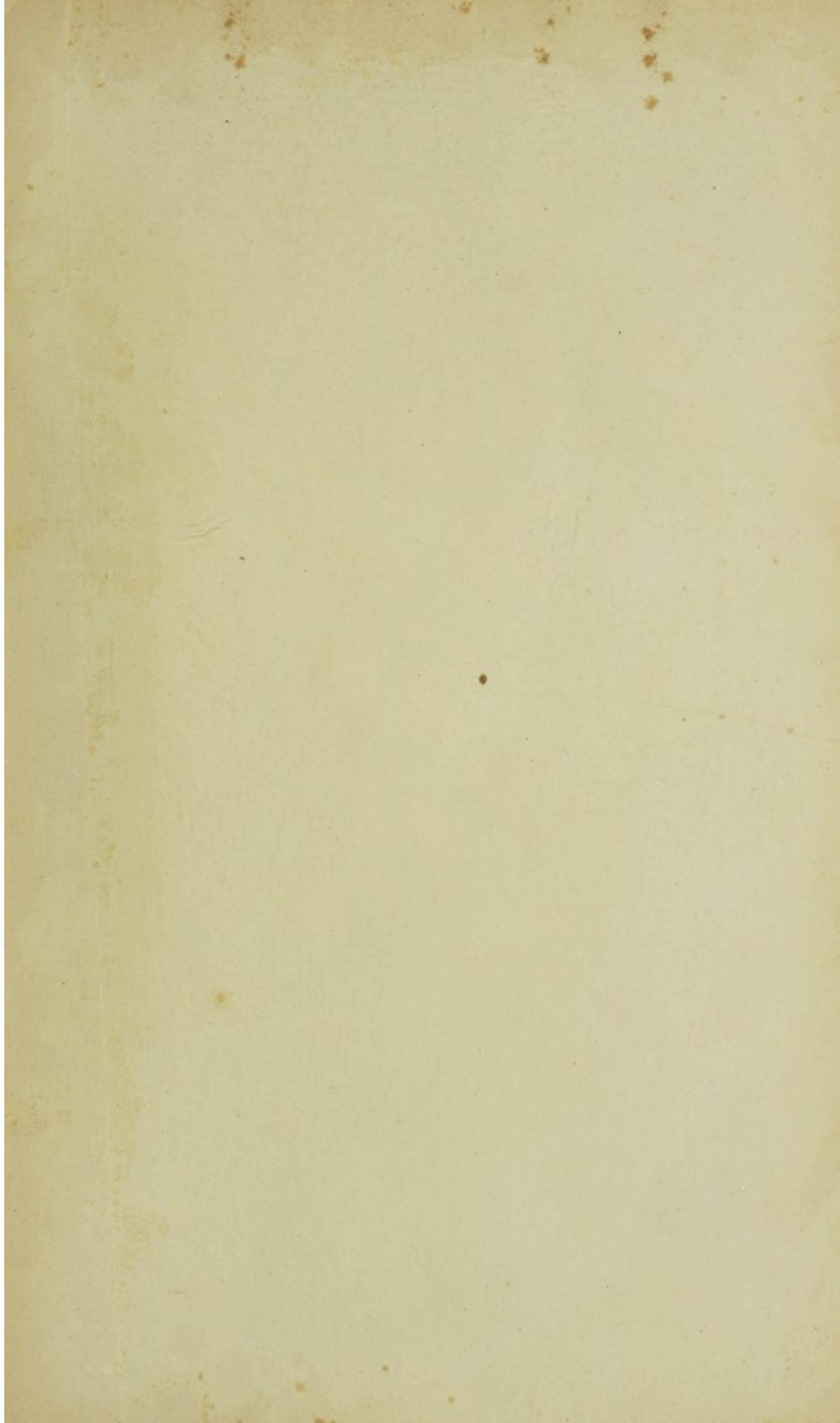
TABLE LIII—concluded.

DETAIL of DISEASES.

DISEASES.	TROOPS ON FIELD SERVICE.				DISEASES.	TROOPS ON FIELD SERVICE.			
	EUROPEAN TROOPS.		NATIVE TROOPS.			EUROPEAN TROOPS.		NATIVE TROOPS.	
	Admis- sions.	Deaths.	Admis- sions.	Deaths.		Admis- sions.	Deaths.	Admis- sions.	Deaths.
Poisoned Wound :—					In action :—				
" by dog . . .	...	...	2	...	Spear wound . . .	...	...	4	4
					Killed . . .	...	...	...	1
Homicidal :—					Not defined :—				
Gunshot wound . . .	...	...	...	4	Wound . . .	...	...	...	2
Bayonet wound . . .	1	...	...	...	Gunshot wound . . .	...	...	...	4
					Fracture . . .	...	...	...	1
Suicidal :—					No appreciable disease	8	...
Gunshot wound	3	Not yet diagnosed	13	...
					GRAND TOTAL . . .	687	4	5,531	245







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1901,

WITH

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



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