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REPORTS

BRINGING UP THE

STATISTICAL HISTORY

OF

THE EUROPEAN ARMY IN INDIA

AND OF

THE NATIVE ARMY AND JAIL POPULATION OF BENGAL

TO

1876;

AND THE CHOLERA HISTORY OF 1875 AND 1876,

IN CONTINUATION OF

REPORTS EMBRACING THE PERIOD FROM 1817 TO 1872.

BY

JAMES L. BRYDEN, M.D., Surgeon-Major, Bengal Army,

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PREFACE.

THE Secretary of State for India having required that the Statistics of the Native Armies and Jails of the Minor Presidencies shall be incorporated in the Annual Series of Tables appended to the Report of the Sanitary Commissioner with the Government of India, the series for 1877 will include, in a uniform shape, the Statistics of the European and Native Armies and the Jail Population of India.

The introduction of this change makes it expedient to close with the returns of 1876 the series of annual compilations having reference to the Bengal Presidency only; and the volume containing the statistics of the six years from 1871 to 1876 is issued along with these commentaries.

Since 1871, the Statistics of the European Army of the Three Presidencies have been placed in my hands, and the results have been published annually. The statistics of a series of years are required adequately to illustrate many questions of importance relating to the medical history of the British Soldier in India, and the First Section of this Report gives for the period the illustrations required to supplement the tables which have reference to sickness and mortality generally.

The statistics of localities and the influence of seasonal changes I shall reserve for a future opportunity, when it may be possible to contrast the experience of the ten years from 1871 to 1880 with that of the decennial period 1860–69, already framed and published as a standard of comparison.

Reference to the Table of Contents will show the subjects which I propose to take up for consideration in the meantime.

In the Second Section, relating to the Native Army of Bengal, the Statistics of the Ten Years from 1867 to 1876 are reviewed, and a Standard for the Ten Years, in a series of forty-nine tables, is appended. The Statistics of the Stations of the Presidency for the period are printed in detail for twelve stations only, which may be taken as representative of areas; but the same Statistics of locality have been made up in detail for each Cantonment of the Presidency, and are available for reference.

The Third Section reviews the Jail Mortality of the Presidency over a period of Eighteen Years. The statistics are arranged in two series, having reference to the eighteen years from 1859 to 1876, and to the ten years from 1867 to 1876. The reason for this will appear when the contents of these tables are discussed. The latter series is drawn up as a Ten-year Standard, uniform with that for the Native Army of Bengal; but, by desire of the Secretary of State for India, the figures of the ten years have been adapted so as to represent the different Jail Administrations of the Presidency. The Ten-year standard consists of fifty-six tables; and this is, I believe, the first time that

the Statistics of the Prisoners of the Presidency have been brought together for a series of years, and reviewed on an adequate basis.

The chapters on the forms which destructive disease assumes in jails, and on epidemic fevers, contagious and non-contagious, open up for study subjects of world-wide importance.

The Fourth Section continues the history of Epidemic Cholera in Hindostan from 1873 to the close of 1876, taking up the narrative from the date at which my report of 1872 closed. It teaches how, when cholera has disappeared, its renewal over the different provinces of India may be expected to occur; and in the successive advances throughout 1875 and 1876, phenomena so striking in their character as to be appreciable by any educated observer, have come forward in every month, and from one end of India to the other, to demonstrate that the distribution of cholera is brought about by the same natural agencies which have been in operation through the past sixty years.

Simla, 1st January 1878.

CONTENTS.

SECTION I.

GENERAL STATISTICS OF THE BRITISH ARMY OF INDIA, 1871—76.

CHAPTER I.

GENERAL STATISTICS OF SICKNESS AND MORTALITY DURING THE SIX YEARS FROM 1871 TO 1876.

	Page
The Strength of the Army of India as represented in the Returns of the period	3
Fluctuation in the Strength of the Army of India during the six years, 1871—76.	3
Disposal of Invalids from India after arrival in England	4
Volunteering from regiments leaving India	4
Desertions during service in India	4
Fluctuation in the annual mortality in the period 1871—76	5
The ratios of sickness, mortality and invaliding for the Army of India, and the general deduction warranted by these ratios	5
Fluctuations in the ratios of sickness and mortality must occur, since epidemic seasons certainly recur at intervals in India	5
The mortality of the Army in relation to the influences of the seasons. Aggregate of the monthly results of the six years	6
The fluctuation of the daily sick-rate—the maximum and minimum of the 72 months	6
The ratios of sickness, mortality and invaliding for the Army of Bengal only, for the 15 years 1861—75, contrasted in 5-year periods	7
The proportion of the Army of Bengal which has now the benefit of change to a hill climate, and the results of residence in the hills	7
The habits of the soldier as affecting the ratios and sickness and mortality—drunkenness	8
Statistics of venereal disease	9
The statistics of the married as compared with the unmarried soldier, contained in a separate report	9
The general statistics of the Three Presidencies contrasted on the results of the period	13
How 100 deaths have been made up in each of the Three Armies	14
Death-ratios in a comparative form	14
Composition of 100 cases of Invaliding in the Three Presidencies contrasted	15
Invaliding-ratios of the Three Presidencies in a comparative form. Chief causes of invaliding in each of the Armies	15
Two Tables are appended to the first Chapter—	
A. The Aggregate of the Sickness and Mortality in the Army of India during the five years from 1871 to 1875, and the prevalence of the principal diseases in each month	16
B. Comparative statement of the Annual Ratios for the Army of India for each year from 1871 to 1876, and the ratios for the Armies of the Three Presidencies contrasted on the results of the five years 1871—75	17

CHAPTER II.

THE STATISTICS OF THE ARMY AS INFLUENCED BY AGE AND LENGTH OF SERVICE IN INDIA.

Strength of the Army in relation to length of service in India. Army of 1871—75	18
Proportion present at the different periods of residence	18
Strength of the Army in relation to age	19
Proportion present at the different ages	20
Army of 1876. Strength in relation to age and length of service in India	21
Deaths of the Army of India in relation to age and length of service, 1873—76	21
Composition of the death-rate, and the liability to death from different causes in relation to length of Indian service	22
How 100 deaths are made up in the earliest and latest periods of Indian service	23
Invaliding in relation to length of Indian service, to age, and to both combined	23
Contents of the series of eight tables recapitulated, which illustrate the relation of the invaliding of the Army to length of residence in India	24
The invaliding ratios of young, mature and old soldiers, and their details, compared—	
A. In relation to length of service	32
B. In relation to age	33
Standard of 1871—75 for invaliding in relation to age	34
Parallel table for the Army of India of 1876	38

PAGE

The Deaths of the Army of India in relation to Age 39
Standard for the Army of Bengal of 1865—70 compared with that of 1871—75. The results for 1876 . 39
Detailed death-ratios extending the range of age from below 20 to 40 and upwards 40
The subject illustrated in a series of eight tables. General deduction in regard to the contents . . 40

CHAPTER III.

THE MEDICAL HISTORY OF REGIMENTS NEW TO INDIA AND OF REGIMENTS AT DIFFERENT PERIODS OF RESIDENCE, SHOWING THE VICISSITUDES INCIDENT TO A TOUR OF INDIAN SERVICE, AND THE LOSS THROUGHOUT.

The medical history of regiments new to India in the period 1871—76 is consistent with that illustrated in previous Reports 49
While the components and their proportions remain the same, there has been a marked diminution in the death-rate 49
The death-rates of 1864-69 and their constitution, compared with those of 1871—75 49
The proportion of deaths from Enteric Fever to the mortality from all diseases 49
The mortality from Enteric Fever in previous years as large as in the period 1871—76 50
General statistics of newly arrived regiments, and the ratios compared with those of 1864—69 . . 50
Locality as affecting the death-rates of newly arrived regiments 51
Statistics of newly arrived regiments in each year from 1871 to 1876. Standard of 1871—75 . . 52
The death statistics of the same body in the second year of Indian service 55
The constitution of the death-rate of new regiments in the first and second years, and its composition in relation to the ages of the men who die 56
The constitution of the invaliding rate of Regiments in the first and second years of Indian service . 57

The Enteric Fever of the Unacclimatised as manifested from 1871 to 1876.

General statistics of prevalence in relation to age and length of service 57
The effects of age and length of residence viewed in combination 58
The Enteric Fever of the unacclimatised has no geography, although certain localities are less favourable than others for its development 58
While the mortality relative to the number treated is high, it is unduly exaggerated in our statistical returns 58
Demonstration of the universality of the manifestation of Enteric Fever. Experience of all regiments in the first year 1871—77 59
Is the Enteric Fever of the unacclimatised a communicable disease? 59
Demonstration of the truth of the assertion made in previous reports, that Enteric Fever is the one disease peculiar to the young soldier in India 60

Numbers required to make good the loss in five years of Indian service by death and invaliding . 61
The loss varies much with circumstances and locality 61
Loss of regiments in the course of their tour of Indian service. Illustration of excessive loss—Her Majesty's 36th Regiment 62
Illustration of average loss—Her Majesty's 1-11th Regiment 62
Statistics of six regiments during Indian service extending over from 9 to 13 years, shown year by year, and the aggregate loss during the period 63
The number lost during the tour of Indian service by death and invaliding among the men who landed in India with their regiments. Illustrated by 42 examples 65
How a body originally 15,529 strong, and representing 23 regiments and brigades of artillery, was reduced in the course of Indian service to 3,554 66

CHAPTER IV.

THE WOMEN AND CHILDREN OF THE ARMY OF INDIA.

Strength of women and children attached to the Army of Bengal, 1860—76 67
Death-rates of the women and children compared in the two periods, 1860—69 and 1870—76 . . 68
Summary of the death statistics of 1860—69, of the women and children of the Bengal Army, for comparison with the standard of 1871—75 which follows 69
The death-rates both of women and children, of recent years, have been very favourable, and cannot be expected to be much lower in the future 69
The aggregate of the sickness and mortality of the women of the Army of India during the five years, 1871—75 70
The ratios for the women of the Army of India for each of these years, and of the Army of each Presidency on the average of the period 71
The components of the death-rate of the children of the Armies of the Three Presidencies compared . 72
Death-rates of children at the different ages, showing the rapid decrease of the ratio as age progresses . 72
The proportion which the cholera-rate bears to the general death-rate of the older children . . 73
How children die at the different ages.—A series of tables based on 4,076 deaths 73
The death-rates of the children of the Armies of the Three Presidencies as influenced by season. Statistics of monthly mortality 75
Aggregate of the sickness and mortality of the children of the Army of India for the five years, 1871—75, showing the prevalence of the principal diseases in each month 76
Comparison of the ratios for the children of the Army of India of each of the five years, 1871—75, and for the children of the Armies of the Three Presidencies on the average of the five-year period 77

TABULAR STATEMENTS CONTAINED IN SECTION I.

CHAPTER I.

Gain and Loss Statement for the Army of India for the six years from 1871 to 1876 1
Annual ratios of sickness, mortality and invaliding. Army of India, 1871—76 5

PAGE

The ratios of sickness, mortality and invaliding for the Army of Bengal, for the 15 years 1861—75, contrasted in 5 year-periods 7
Venereal ratios of the Army of India and of the Three Presidencies, 1871—76 9
Ratios of special diseases contrasted in the Armies of the Three Presidencies 13
Composition of 100 deaths in the armies of the Three Presidencies 14
Comparative death-table for the Three Presidencies, detailing the chief causes of mortality . . . 14
Composition of 100 cases of invaliding in the Armies of the Three Presidencies 15
Comparative invaliding table for the Three Presidencies, detailing the chief causes of invaliding . . 15
The aggregate of the sickness and mortality in the Army of India during the five years from 1871 to 1875, and the prevalence of the principal diseases in each month 16
Comparative statement of the annual ratios of sickness and mortality for the Army of India for each year from 1871 to 1876, and the ratios for the Armies of the Three Presidencies contrasted on the results of the five years, 1871—75 17

CHAPTER II.

Strength of the Army of different periods of Indian Service 18
Proportion present at the different periods of residence 19
Strength of the Army at different ages 19
Army of 1876. Distribution of the Strength by age and length of service in India 20
How 100 deaths are composed at different periods of Indian service (Army of India, 1873—76) . . 21
Deaths of 1873—76 detailed; the death-rates and comparative liability to death at the different periods of Indian service 22
Parallel table for 1876 only 22
Composition of 100 deaths at the earliest and latest periods of Indian service 23
Invaliding in relation to age and length of Indian service, and to both combined 23

Series of Eight Tables illustrating the Relation of the Invaliding of the Army to Length of Residence in India.

1.—Table showing in each year, and for the Armies of the Three Presidencies, the number of men invalided at different periods of Indian service, the ratio per 1,000 of strength, and the percentage of the total invaliding as distributed in relation to length of service in India . . 25
2.—Invaliding of the Army of India, showing the ages of the men invalided from all causes, and the number of years of Indian service completed 26
3.—Invaliding of the Army of India, 1871—75, showing the causes of invaliding, and the length of Indian service of the men who broke down from the different causes 26
4.—Detailed statement showing how, and in what proportion the men of the Army of India of 1871—75 have been invalided in relation to length of residence in India 27
5.—Parallel statement for the Army of Bengal 28
6.—Parallel statement for the Army of Madras 29
7.—Parallel statement for the Army of Bombay 30
8.—Parallel statement for the Army of India of 1876 31
How 100 cases of invaliding are made up in young, mature and old soldiers respectively 32

Standard of 1871—75 for Invaliding in relation to Age—a series of four tables.

1.—Table showing the number of men of the Army of India of 1871—75, invalided at the different ages, the loss per 1,000, and the comparative liability to invaliding from the chief diseases in relation to age 34
2.—Parallel statement for the Army of Bengal 35
3.—Parallel statement for the Army of Madras 36
4.—Parallel statement for the Army of Bombay 37
Parallel table for the Army of India of 1876 38
Liability to death at different ages—the standard for Bengal of 1865—70 compared with that of 1871—76 39
Detailed death-ratios extending the range of age from below 20 to 40 and upwards 40

Series of Four Tables showing the Mortality of the Army of India in relation to Age.

1.—The number and causes of deaths at the different ages from 1871 to 1875 in the Army of India, the ratio of deaths to strength, and the comparative liability to death in relation to age from the chief causes of mortality 41
2.—Parallel table for the Army of Bengal 42
3.—Parallel table for the Army of Madras 43
4.—Parallel table for the Army of Bombay 44
The parallel tables for the Army of India of 1876 follow:—
1.—Army of India 45
2.—Army of Bengal 46
3.—Army of Madras 47
4.—Army of Bombay 48

CHAPTER III.

Sickness and mortality in the first twelve months of Indian service of the regiments which arrived in India between 1871 and 1875, and the prevalence of the chief diseases in each month . . 52
Parallel table for the new regiments of 1876 54
Comparative statement showing the ratios of sickness and mortality of the regiments new to India, in each year from 1871 to 1876 53
Admission-rates and death-rates of the same body of the first and second years contrasted . . . 55
Deaths of regiments in the first and second years of Indian service and their causes, shown in relation to age (1871—76) 56
The constitution of the invaliding-rate of Regiments in the first and second years (1871—76) . . 57
Admissions and deaths from enteric fever in the first year of Indian service in all regiments and batteries which arrived between 1871 and 1877 58

PAGE

The fact demonstrated from the figures of 1871—76, that enteric fever is the disease above all others which contributes to the death-rate of the young soldier 60
Loss in the first five years of Indian service, illustrated from the experience of 13 regiments . . . 62
Loss during a tour of service extending over 9 to 13 years, illustrated by the medical history of six regiments 63
The loss and ratios shown year by year 65
Loss by death and invaliding in the course of Indian service of the original body of men who constituted the regiments on arrival in India. Experience of 42 regiments 65
Loss from all causes, as well as from death and invaliding, in 23 regiments in the course of their tour of Indian service, which occurred amongst the men who constituted the body on arrival in India . 66

CHAPTER IV.

Death Table for the women and children of the Army of Bengal, for the ten years from 1860 to 1869, for comparison with the statistics of the past six years 69
Aggregate of the Sickness and Mortality of the women of the Army of India, for the five years 1871 to 1875 70
Comparative statement showing the ratios of each year for the women of the Army of India, and the ratios for each Presidency on the average of the period 71
Composition of 100 deaths of children in the Armies of the Three Presidencies compared . . . 72
Liability to death at different ages illustrated, showing the rapid decrease of the death-ratio as the ages of the children progress 72
Composition of 100 deaths of children at six different ages—results of 1872—76 73
Deaths and Death-rates from the chief causes of mortality shown in relation to the ages of the children who died. Results from 4,076 deaths, which occurred from 1872 to 1876 74
Comparative liability of children to death in the different months of the year, illustrated by the monthly mortality of the Armies of the Three Presidencies from 1871 to 1875 75
Aggregate of the sickness and mortality of the children of the Army of India for the five years 1871—75, showing the prevalence of the principal diseases in each month. 76
Comparative statement showing the ratios of sickness and mortality for the children of the Army of India for each of the five years 1871—75, and for the children of the Armies of the Three Presidencies on the average of the five-year period 77

SECTION II.

TEN-YEAR STANDARD FOR THE NATIVE ARMY OF THE BENGAL PRESIDENCY, BASED ON THE STATISTICS OF THE YEARS FROM 1867 TO 1876.

The Statistics of the European and Native Armies compared as related to season 81
Causes of mortality at the different seasons compared in the two bodies 82
Components of the death-rates of the Native and European Armies of 1867—76 compared . . . 82
Etiological distinction between the Fevers of the European and Native Armies 83
Enteric Fever of the native soldier, its nature and the extent of its prevalence 83
The native soldier a foreigner in many parts of India. The ratios of areas adapted to his constitution compared with those of unsuitable localities 83
The characteristics of the death-rate of the native soldier, and their variation with locality . . . 84
The characteristics of the death-rate of Eastern Bengal. The decay of native regiments in Eastern Bengal illustrated 85
Aggregate loss in a four-year tour of service in different Provinces 86
Decay of a native regiment in Upper India illustrated 86
Illustration of the effects of an epidemic season on the health of the native army of Northern India . 87
The cholera ratio of native troops in Hindostan Proper contrasted with that of Eastern Bengal and the North-Western Frontier 87
The deaths of native soldiers at their homes must be taken into account in the calculation of the death-ratio. Comparison of the annual death-rates of the period 88
Annual death-rate of the Frontier Force for the ten-year period 88
The characteristics of the admission-rates and death-rates of the Goorkha regiments 89
Constitution by race of the Native Army of Bengal 89
Fluctuation in strength of the Native Army in the ten years. Chief causes of fluctuation . . . 91

TABULAR STATEMENTS CONTAINED IN SECTION II.

How, taken month by month, 100 deaths are made up in each month in the European and Native Armies respectively 81
How 100 deaths from the chief causes of mortality, are made up in the Native Army 82
Contrasted ratios of areas adapted to the native soldier or unsuited to his constitution; ratios of troops serving Trans-Indus, in Bengal Proper and Assam, and in the Gangetic Provinces and Oudh, 1870—76 84
Components of the death-rate, showing its distinguishing characteristics for the different Provinces, from Bengal Proper to the Punjab Frontier 85
Loss by death and invaliding during a tour of service in the different Provinces illustrated . . . 86
Increase of fever deaths and deaths from pneumonia in Northern India illustrated 87
Death-rates of each of the ten years, for the Regular Army and the Frontier Force, showing the ratios inclusive of absent deaths, as well as the ratios for the men present with their regiments . 88
Ratios for Goorkha Regiments, and the ratios compared with those of the Army of Hindostan Proper . 89
Tabular statement showing the constitution by Race of the Native Army and Frontier Force in two years of the period, 1872 and 1876 89
Tabular statement showing the Gain and Loss in Strength of the Regular Native Army and of the Frontier and Central India Forces for each of the ten years from 1867 to 1876, and for the ten-year period 91

TEN-YEAR STANDARD FOR THE NATIVE ARMY OF THE BENGAL PRESIDENCY, 1867 TO 1876.—TABLES I TO XLIX.

Table of Contents is prefixed to the Tabular Statements.

SECTION III.

STATISTICS OF THE PRISONERS OF BENGAL FOR EIGHTEEN YEARS, FROM 1859 TO 1876: AND EPIDEMIC FEVERS AS AFFECTING THE JAIL POPULATION.

CHAPTER I.

THE GENERAL STATISTICS OF THE JAIL POPULATION OF THE BENGAL PRESIDENCY.

PAGE

In this report the statistics of the various Provinces are arranged according to the Administrations . 153
The jail statistics a record of sanitary progress 153
Contagious fevers, a cause of excessive fluctuation in the jail mortality 153
Taken province by province, the improvement in the health of the prisoners is consistently observed . 154
Both in epidemic diseases and in the diseases of debility, which characterise the death-ratio of prisoners, progress is evident and satisfactory 154
Deaths of Provinces, 1859-76. Comparative statement in two nine-year periods, in summary and in detail 156
Ten-year standard of 1867-76. Its general arrangement 160
Distribution of jail mortality by months. Special diseases as related to monthly mortality 160
Diseases of debility. Proportion of deaths from this class of disease under the different administrations. The death-rate from all causes compared 160
The mortality from bowel complaints as exhibited in relation to season illustrated by a typical example, and by the general provincial ratios 161
The parallel manifestation by months of dysentery, respiratory diseases and fevers 162
Illustrated from the deaths of the jails of the Punjab 162
Contrasts in the composition of the death-ratio of the European Soldier and the Native Prisoner in Bengal. Hepatitis, Enteric Fever, Heat Apoplexy 162
The contagious fevers of jails treated of in the third chapter of this section 162
Fluctuation of mortality in the great jails of Upper India. The significance and importance as an index of the concluding table 163

CHAPTER II.

THE DIFFERENT ASPECTS IN WHICH DESTRUCTIVE DISEASE IN JAILS SHOWS ITSELF.

No record of contagious fevers in the jails of Bengal Proper. This is evident from the fever statistics of the Administration 166
Epidemic contagious diseases have contributed little to the general death-ratio of this Province . . 167
Illustration of what has been effected towards improving the health of prisoners in Lower Bengal—Monghyr Jail as typical 167
Bad jails of Northern and Eastern Bengal, which consistently show a high death-ratio—Rungpore, Backergunge, and Dinagepore 167
Forms which disease has assumed in these jails 167
How prisoners die in the Gangetic Provinces. Benares Jail as typical 168
Destructive disease which appeared in the Benares Jail, and in some jails adjoining, in 1855. Its nature and natural alliances 169
While this contagious cachexy was not a typhus, the same train of symptoms may be manifested in connection with a contagious fever allied to typhus. Contagious fever of 1855, on the North-Western Frontier 170
Jail at Lucknow, showing two aspects—as one of the most unhealthy, and subsequently as one of the most healthy jails of India. Contagious fevers of 1860 and 1866 170
Allahabad Central Jail illustrates the entire absence of cholera of late years, and a long series of healthy seasons interrupted by outbreaks of contagious fever, contagious dysentery and contagious sloughing ulcers 171
Meerut Jail—showing the effects of contagious fever and famine, and of dysentery produced by endemic causes affecting the prisoners 172
Epidemics of malarious fevers as affecting the health of the jails of a Province. Lahore Jail in 1856 . 173
Epidemics of Northern India affecting the jail population, special in their characteristics . . . 173
The geographical area chiefly affected by fevers of the typhus class 173
The alliance of certain respiratory diseases with erysipelas and diphtheria. Jails of the Punjab, 1870-72 174
Association of typhus with erysipelas and diphtheria. Rawalpindi Jail 174
The same association of epidemic disease among the free population of the Province 175
The Lahore Central Jail, affected by these epidemics, illustrates the medical history of other large jails of Northern India 176
Medical history of the Rawalpindi Jail, illustrating the various phases which contagious disease assumes in Northern India 176
The typhus of Northern India is not necessarily a relapsing fever; nor is scurvy among the general population essential for its development 178

CHAPTER III.

EPIDEMIC FEVERS IN RELATION TO JAIL MORTALITY.

Historical record of Epidemic Typhus and Relapsing Fevers in India, and their association with Malarious Fevers and Famine.

Epidemic fever—malarious, relapsing and typhus. How manifested in relation to areas and communities 179
Association of different epidemic fevers, and possible connection one with the other 179
Parallel course of epidemic malarious fevers and cholera 179
All non-contagious fevers appearing at the season when epidemic malaria prevails are not malarious fevers 179
Primarily malarious epidemic fever is not contagious, and mistakes may arise by assuming the contrary 180

PAGE

Importance of distinguishing the different varieties of yellow fevers 180
Epidemic malaria has a history, general and local. A single locality may be taken as typical for a great natural province 180
The Seharunpore district as typical, taking the epidemics from 1810 onwards. The epidemics from 1810 to 1870, were generally and provincially, as well as locally manifested 180
The succession of epidemics of malarious fevers—
Epidemic of 1809 181
Epidemic of 1816 181
Epidemic of 1829 181
Epidemic of 1834 182
Epidemic of 1840 182
Epidemics from 1850 onwards 182
Association of the fever of Lower Bengal with the fever of Upper India 183
Localisation of epidemic malaria in Upper India. The subject illustrated 183
Localised malaria is not allied in its nature to enteric fever. Cases of Her Majesty's 85th and 79th Regiments 183
The association of epidemic malarious fever with famines and contagious fevers. Epidemic periods . 184
Malarious fevers, famine and contagious fevers between 1815 and 1820. Famine of 1818 184
Epidemic malaria preceding the famine. The epidemic fever in the Gangetic Provinces and in Northern and Western India 184
Relapsing contagious fever of the same period. In Upper India in the jails of Moradabad, Seharunpore and Allahabad 185
Typhus and relapsing fever of the period in Western India 186
Alliance of the malarious epidemics of Madras with those of Northern India, epidemics of 1810, 1816 and 1833-34 186
Epidemic malaria, typhus and famine of 1833-38 186
Scurvy preceding the outbreak in Western India 187
Typhus general over Northern and Western India 187
Details illustrating the character of the fever of 1836 and 1837 in Upper India 187
Typhus of the Agra Jail of the spring and hot months of 1838 187
Epidemic malaria, relapsing fever and famine, 1859-66 188
The epidemic of malaria of October 1859 in the Valley of the Ganges—Behar Provinces 188
,, ,, Eastern Bengal 188
,, ,, Benares, Ghazipore, Mirzapore 189
,, ,, Saugor and other tracts of Central India 189
,, ,, Nerbudda Valley 190
Comparative immunity of the jails in all districts affected 190
Loss of a Province during an epidemic of malarious fever. Punjab, 1869-70 190
Epidemic malaria of 1859. Its geographical limit to the west. The jails affected by relapsing fever were beyond this limit 190
The relapsing fever of 1859-66, probably received its main impetus from the occurrence of famine in 1860-61. Its geographical distribution 191
Meteorology predisposing to the development of diseases of the typhus group in India 191
In all epidemic periods several distinct varieties of fevers of the typhus group appear 191
The occurrence of diseases of the typhus class, in connection with the appearance of malarious epidemics, suggests the necessity for keeping the fact in view in studying the pandemic spread of fevers 191

The Aspects in Communities of Fevers of the Typhus Class.

Diseases of the typhus-group may change their type in a community. A continued typhus of the spring may reappear as a relapsing fever in the next cold season 191
Continued yellow typhus 191
The Variety in which the force of the poison is thrown on the lungs. Illustrations from the different historical typhus periods 192
Bubo plague of the Himalayas and Western India 193
Pneumonic typhus, as seen in British Regiments during the last typhus period 193
Relapsing fever of a Native Regiment cantoned in the same station, parallel in time with the pneumonic fever of the Europeans 193
Description of this fever as typical for relapsing typhus 194
Relapsing typhus as described by Hippocrates 194
Epidemic dysentery (? typhus) of Her Majesty's 19th Regiment, which occurred at Amritsar in 1863, when typhus prevailed 195
The only case of contagious dysentery in our European records of the past 20 years. Parallels in former times 196
Dysenteric typhus, the offspring of relapsing typhus, of the Amritsar Jail, of 1864 196
Nature of the contagious dysentery and fever of Her Majesty's 96th Regiment, which suffered at Lahore in 1852 and 1853 196
Dinapore dysentery of 1849-50 197
Enteric typhus (?), in which the lower portion of the small intestine is alone involved 197
The specific character and insidious nature of relapsing contagious fever; the method of its introduction into jails illustrated. Allyghur, Agra and Umballa jails 197
The germ of an outbreak introduced months before, is apt to be overlooked in consequence of the temporary decay of the typhus poison 199
Influence of season on the manifestation of contagious fevers. The contagious fevers of India run parallel in season with those of Egypt 199
Typhus in vessels leaving Calcutta during typhus periods. Typhus of Reunion 200
The natural alliances of typhus. The importance of the study of these alliances 200
The mortality following the introduction of relapsing fever into jails, shown in the results of 51 outbreaks; and the seasons of its commencement, culmination and decay illustrated 202
Contagious fever is almost invariably present among the free community before it appears in jails . 205
Why precautions and sanitary measures have failed to cut short these jail outbreaks 205

TABULAR STATEMENTS CONTAINED IN SECTION III.

Deaths and Death-rates of Administrations. Comparative Statement in two nine-year periods, and for each of the 18 years from 1859 to 1876 156

PAGE

Jail mortality in relation to season. Distribution by Months of 100 deaths from the chief causes of mortality (1867-76) 160
Composition of the death-rate of the jails under the different administrations. Standard of 1867-76 . 160
Deaths from bowel complaints in the Meerut Jail (1867-76), to show how the mortality from bowel complaints falls in relation to season 161
Table showing the fluctuation in the mortality of the great jails of Upper India during the 18 years. An index to the remarks contained in the chapters which follow. 164
Statement proving that contagious fevers have not appeared in these 18 years in the jails of Bengal Proper 166
Death-ratios of Monghyr Jail in the two nine-year periods, illustrating the great improvement in the health of the prisoners 167
Death-ratios of 18 years of the Rungpore, Backergunge and Dinagepore Jails—a record of exceedingly high mortality throughout the period. Facies of disease in these jails 168
Death-ratios and the causes of deaths in the Benares Central Jail, taken as typical for the jails of the Gangetic Provinces 168
Lucknow Central Jail. Two aspects—extreme unhealthiness up to 1866, and the highest attainable standard of health from 1867 onwards 171
Allahabad Jail, attacked by three forms of epidemic contagious disease in the 18 years 171
Meerut Jail for the 18 years—showing the effects of contagious fever and famine, and of dysentery produced by endemic causes affecting the prisoners 172
The Lahore Central Jail, affected by various forms of epidemic contagious disease, illustrating the medical history of other large jails of Northern India 176
The deaths from contagious fevers in the Rawalpindi Jail, shown consecutively through the months of seven years, indicating the persistence of the fevers, and their obedience to the law of growth and decay 177
Deaths from contagious fevers—Typhus and Relapsing, which have occurred in the more important jail outbreaks between 1859 and 1873, and the relation of the outbreaks to the meteorological influences prevalent at the different seasons of the year 202

TEN YEAR STANDARD FOR THE JAIL POPULATION OF THE BENGAL PRESIDENCY, 1867 TO 1876.—TABLES I TO LVI.

Table of Contents is prefixed to the Tabular Statements.

SECTION IV.

THE CHOLERA HISTORY OF 1875 AND 1876, ILLUSTRATING HOW THE AREA OF HINDOSTAN WHEN UNOCCUPIED IS RE-INVADED BY EPIDEMIC CHOLERA.

CHAPTER I.

THE DYING-OUT OF CHOLERA OVER HINDOSTAN IN 1873 AND 1874, AND THE MINIMUM REACHED.

The succession of epidemics is in India a recognised fact. The fact should be recognised in countries invaded from India 275
Geography of the successive epidemics of the past 11 years, and its significance in each case . . 275
Decay of cholera throughout 1873 and 1874 275
The minimum recognised in every Presidency and Province of India. Provinces of Bengal . . . 276
" " Bombay Presidency 276
" " Madras Presidency. 276
Why the cholera of 1872 did not extend in the Madras Presidency 277
General features of the cholera of 1872 on the southern epidemic highway 277
Death of cholera in the Bombay Presidency in March 1873 278

CHAPTER II.

THE RE-APPEARANCE OF CHOLERA WITHIN THE UNOCCUPIED AREA IN THE SPRING OF 1875.

The cholera of the spring of 1875 did not appear over India following human intercourse. How it did appear, and parallel occurrences as illustrative of the phenomenon 279
Parallel history teaches, that the occupation of great areas of Hindostan by an epidemic cholera in motion, but unable to show its presence because distributed at a season when it is incapable of manifestation, is a fact 279
The first case which gave warning that in the spring of 1875 cholera might appear over Western India . 279
Dates at which the spring cholera of 1875 was manifested over India 280
" Bombay Presidency. The cholera of April 1875 did not radiate from Nasik 280
" Madras Presidency. The cholera of April was not imported from Ceylon 281
Ceylon exempted in 1874, as well as the Continent of India 281
First appearance of cholera in the Berars 281
" in the Central Provinces 281
" in Western Malwa 281
" in Bundelkhund 282
" in Rajpootana 282
" in Northern India, west of 80° 282
" in Agra, Muttra, and Bhurtpore 282
" in the Punjab 282
The special area of early spring cholera in the north, the districts of Upper India east of 80° E. Long. 282
Area of repression—west of 80° 282
Area of repression in the Central Provinces 283

PAGE

Area of repression in four districts of the Berars 283
Geography of the spring cholera of Bombay 283
The area in Western and Southern India which remained unoccupied by spring cholera 283
Goruckpore and Busti, the tract first affected by the new epidemic. The aspect in this tract of the cholera of the end of 1874 283
The re-invasion of Oudh 283
The appearance and growth of cholera in Upper and Northern India in the spring of 1875 284
Growth of cholera in the early spring area of the Central Provinces, in the first quarter of 1875 . . 284
Growth of the spring cholera of Madras and Bombay of 1875 284
All throughout India the manifestations of spring cholera in 1875 were links in one common chain . 284

CHAPTER III.

THE GENERAL PHENOMENA ATTENDING THE OCCUPATION OF THE CHOLERA AREA OF THE SPRING OF 1875.

The cholera of the spring of 1875 was neither introduced by human intercourse, nor locally grown from pre-existing germs 285
The parallel of the invasion of Western India in 1872. Appreciation of this invasion in the spring of 1872 285
The significance of the spring cholera of 1818 of Western India, reviewed after the experience of 1872 and 1875 286
The cholera of the endemic area preceding and accompanying the new cholera of 1874-75 287
General conclusion regarding the primary distribution of the epidemic 287

CHAPTER IV.

THE CHOLERA OF THE MONSOON OF 1875.

Meteorology of the third week of June, over Central and Upper India 288
The first appearance of the cholera of 1875 in Northern India was with the monsoon 288
Invasion of the Punjab. Occupation of the eastern districts and of the Himalayas 288
Parallel in the Berars of the invasion of 20th June of Northern India 289
Movement of 20th June, affecting only the three northern districts of the Nizam's territories geographically associated with the Berars 289
The districts of the Central Provinces adjoining were not entered by cholera on 20th June 289
The general invasion of the Central Provinces was from 20th July onwards 289
What was in progress in the Central Provinces at this date was but a portion of a far wider movement. 290
The cholera deaths registered in the Bombay Presidency in 1875 re-arranged according to a natural method. The striking phenomena displayed 290
Analysis of the death registration of the Madras Presidency, showing the limits of the areas of spring and monsoon cholera 293
Invasion of Madras. The sequence in which the area of the Presidency was covered—A, by spring cholera; and B, by monsoon cholera 294
The tract in the north-east of Madras a natural area, and exhibited as such by the distribution of cholera in 1872 and 1875 295
How and whence the cholera of the monsoon of 1875 moved on the Madras Presidency 295
The invasion of July 1818 as illustrative 295
The parallel phenomenon of renewed activity displayed by the cholera of the Punjab of the same week. 296
The extreme northern limit of the epidemic of 1875. The limitation defined, and identified as the same which defined the epidemics of 1856 and 1861 296
The British soldier taken as a type, and the homologous phenomenon of the attack of many cantonments over the whole epidemic area within a few days, in the monsoon of 1875 297
Renewed activity in Upper India at dates subsequent to the first week of August 297
The death of the cholera of 1875 in Upper, Central and Western India, while it remained in vital activity in the extreme south 297

CHAPTER V.

THE LEADING FEATURES OF THE CHOLERA OF 1876.

Great development of cholera in the endemic area in the end of 1876. Was there any fresh distribution of cholera over India coincident with this manifestation? 299
The increase over Madras at this time may have been only that normal for the season, and related to a cholera already present 300
Shadow of cholera in the Central Provinces at this time 300
Banda cholera of October 1876 300
Aspect of cholera in Bombay in 1876. Was the cholera of the spring of 1877 of the Deccan a new cholera? 300
Aspect of the cholera of 1876 in the North-Western Provinces and Oudh 300
The onward progress in 1876 of the cholera of 1875, in Northern India. The advance into Cashmere and beyond the Frontier in the spring of 1876 301
The possibility of limitation in the North-West anticipated in August 1875. The general anticipations then formed, as given to the Government of India at the time 301
How these anticipations were realized 301
The limitation in the North-West, the aerial wall which retained the cholera. What is meant by an aerial wall admirably illustrated by the geography of the death registration of the Punjab of 1875, as contrasted with that of 1876 302
This illustration typical against the theory of the radiation of cholera 302
Cholera of the Bolan Pass of 9th April 1876. Probably an invading cholera of November 1875 . . 304
Parallel. The Cashmere cholera of April 1876, invading in the end of 1875 304
The significance of the April cholera of the Frontier of 1876 illustrated by the epidemic phenomena of April 1875 304
An isolated case of cholera on 10th April 1876 in Delhi Fort, a shadow of the same in the East of the Punjab 304

PAGE

Parallel on the North-West Frontier in April 1862 305
Advance on Northern India with the monsoon of 1876. The Murree cholera of July 305
General advance over Northern India in 1876 in the same week in which the general advance over so many tracts of India in 1875 occurred. Nowshera exempted in this advance, and throughout 1876. Former experience how utilised 305
Invasion of the Peshawar Valley in 1876. The aspect of the invasion 306
Aspect of the outbreak at Peshawar and Kohat in 1869, 1872 and 1876 compared 306
Death of the epidemic of 1875-76 in Upper India 307
Malarious fever moving parallel with the cholera of 1876 in Northern India 307
Cholera in its endemic home is purely a malarious miasm. Cholera registration of the Jessore district for five years illustrating this aspect 308
In the epidemic area of Hindostan cholera is not a locally generated miasm 308

CHAPTER VI.

GENERAL CONCLUSIONS SUGGESTED BY THE STUDY OF THE CHOLERA OF 1875 AND 1876.

Question of the importation of cholera in this epidemic, and its spread by human agency . . . 310
The effect of sanitary conditions as influencing the propagation of cholera. Remarkable illustrations . 310
Results of investigations regarding the importation and local spread of cholera in 1875 . . . 311
Inadequate theory is always apt to lead on to erroneous deductions. Illustrations 312
Epidemic advance in 1875 was not gradual, nor by marginal extension 312
It is quite possible that the aspect of cholera is double; one aspect predominating in India and the other in countries beyond, as in the case of malarious and relapsing fever epidemics . . 313
If there be these two aspects of cholera, criticism which does not recognise such a possibility is certain to be unsatisfactory 313
Aspects of the disease called cholera in England and America, as distinguished from the epidemic cholera of India 313
Conclusions from personal experience are founded on an inadequate basis. It is essential that the study should be systematic, and followed out as it is in India 314
The cholera of 1875 beyond Hindostan. The cholera of Syria of 1875, which appeared on the same day as the cholera of Western India 314
CONCLUSION 315

TABULAR STATEMENTS CONTAINED IN SECTION IV.

The decay of cholera from 1872 to 1874 in the different natural areas, illustrated 276
The cholera deaths of the Bombay Presidency of 1875 re-arranged according to a natural method, differentiating the areas of spring and monsoon cholera 291
Analysis of the cholera registration of the Madras Presidency, showing the limits of the areas of spring and monsoon cholera 293
The geography of the cholera of the general population of the Punjab in 1875 and 1876, illustrating what is meant by an aerial wall, and typical against the theory of the radiation of cholera . 303
Sudden increase of fevers in the Frontier Stations in the week in which Peshawar was attacked . . 308
Cholera registration of the Jessore district, showing the annual rise and fall from 1871 to 1876, month by month, of endemic cholera, with the aspect of a purely malarious miasm 308

POSTSCRIPT.

Renewed movement of epidemic cholera in 1877-78 317

APPENDIX TO SECTION IV.

Cholera Deaths of the General Population of India, 1873 to 1876.

1.—Northern and Eastern Bengal and Assam 320
2.—South-Western Bengal, Behar Provinces and Oudh 322
3.—North-Western Provinces 324
4.—Punjab 326
5.—Central Provinces and the Berars 328
6.—Bombay Presidency 330
7.—Madras Presidency and British Burmah 332

SECTION I.

GENERAL STATISTICS OF THE BRITISH ARMY OF INDIA FROM 1871 TO 1876.

No.

Extract from the Proceedings of the Government of India, in the Home Department (Sanitary),—under date Simla, the October 1878.

READ—

A letter from the Sanitary Commissioner with the Government of India, No. 515, dated the 3rd September 1878, submitting the two undermentioned volumes of Returns and Report prepared by Surgeon-Major J. L. Bryden, M.D., Statistical Officer to the Sanitary Commissioner with the Government of India.

(1).—Volume IV.—Annual Returns of the European Army of India and of the Native Army and jail population of the Bengal Presidency from 1871 to 1876.

(2).—Volume V.—Report on the statistics of the European Army of India and of the Native Army and jails of Bengal to the end of 1876, and also the history of epidemic cholera in India in 1875 and 1876.

RESOLUTION.

THESE two volumes of sanitary returns and memoranda are in continuation of the three volumes which were prepared in 1874. The tables for six years, 1871 to 1876, which are contained in volume IV, have appeared as appendices to the annual reports of the Sanitary Commissioner with the Government of India for those years. They embrace statistics for the European troops of all three Presidencies, and for the native troops and jails of the Bengal Presidency. These tables represent much annual labour, and their value for future reference will be great and lasting. They form a complete record of sickness and mortality among the communities concerned. In future, commencing from the year 1877, these tables will, it is understood, include not only all European troops, but all the native troops and all the jails of India. The Government of India consider that a collection of data of this kind, as affording material for inductions and generalizations on most important subjects, will prove of great value.

2. Volume V, cited in the preamble, contains a series of short reports on the European soldiers, native soldiers and prisoners, with a separate report on cholera, each subject being illustrated by summaries and other arrangements of figures. The facts put forward in these reports have much practical value, especially those bearing on European soldiers, *viz.*, the diseases which prove most fatal to them at different ages and in different Presidencies, the influence of age and Indian residence on mortality and invaliding, how each affects the results, and how the two act together. In fact, there is hardly any point in connection with sickness and mortality among British soldiers in India on which information is likely to be wanted, which is not taken up and discussed with a thorough knowledge of the facts.

3. The statistics set forth in these reports afford satisfactory evidence of the results which attention to sanitary measures has already effected among the British troops and among prisoners in jail. For instance, the death-rate of the European army in India averaged only 17·62 per mille per annum during the five years 1871-75, as compared with 20 per mille, which the Army

Sanitary Commission reported in 1863 to be the death-rate which ought eventually to be attained. Among the European troops in the Bengal Presidency the death-rate has ranged thus—

During the five years.				
1861-65	...	...	...	29·30 per mille.
1866-70	...	...	...	27·48 „
1871-75	...	...	...	18·50 „

The ratio of invaliding has also fallen to 42·50 per mille during the period 1871-75, from 49·66 per mille in the preceding five years.

In the jails of the Bengal Presidency the average death-rate during the nine years 1868-76 was 15·62 per mille per annum, as compared with an average rate of 29·48 per mille during the nine years 1859-67.

4. The Governor General in Council desires that the acknowledgments of the Government of India may be conveyed to Dr. Bryden for the valuable work of which the present volumes are the outcome.

ORDER.—Ordered, that this Resolution be forwarded to the Sanitary Commissioner with the Government of India for information and communication to Dr. Bryden, and to the Military Department for information.

(True Extract.)

C. BERNARD,
Offg. Secretary to the Govt. of India.

Govt. Central Branch Press, Simla,—No. 511 H. D.—8-10-79—185.

REPORT ON THE STATISTICS

OF THE

BRITISH ARMY IN INDIA AND THE NATIVE ARMY AND JAILS OF BENGAL, TO THE END OF 1876,

AND THE

HISTORY OF EPIDEMIC CHOLERA IN INDIA IN 1875-76.

SECTION I.

GENERAL STATISTICS OF THE BRITISH ARMY OF INDIA, 1871—76.

CHAPTER I.

GENERAL STATISTICS OF SICKNESS AND MORTALITY DURING THE SIX YEARS FROM 1871 TO 1876.

The statistical history of the Army of Bengal from the mutiny year onwards has been the subject of various reports submitted to the Government of India, and these up to 1870 have been incorporated in the Statistical Standard published in 1871.

From 1871 onwards, the returns of the European troops in Madras and Bombay have also appeared in my annual compilations, and I propose to review the results of the first half of the decennial period 1871—80 for the Army of India as a body, in anticipation of a more complete retrospect, due after the expiry of the ten years.

The Army of India, as represented in our returns, is a body averaging about 58,500 men.

The Strength of the Army of India, as represented in the statistical returns for the period.

After the close of the trooping season in 1871, the strength left in India was 57,500, which before October was diminished by death to 56,951, the minimum reached in the five years. Before March 1872, the Army was reinforced by 3,000 men, and the strength was steadily maintained at between 58,000 and 60,000 all through the period. In one month only the strength of 60,000 was exceeded; for March 1874 our returns give 60,163,—an excess caused merely by the arrival of fresh troops before the departure of others leaving India in course of relief. Of the above total, Bengal has maintained an average of 36,500, Madras 11,300, and Bombay 10,700.

The fluctuation in this body from 1871 to 1876 is approximately represented in the following statement, which relates only to regiments which have passed the year in India, and is not to be critically compared with the table which follows, in which the strength, deaths, and invaliding are shown somewhat to exceed the numbers here given :—

Fluctuation in the Strength of the Army of India during the six years 1871-76.

Gain and Loss Statement for the Army of India for the six years from 1871 to 1876.

	1871.	1872.	1873.	1874.	1875.	Total for the five years.	Average for the five years.	1876.
Strength at the beginning of each year—								
At head-quarters and on detachment, . . .	55,611	57,627	58,291	58,284	59,102	288,915	57,783	57,478
On staff employment . .	89	82	91	64	84	410	82	122
In military and other prisons	312	328	342	321	361	1,664	333	412
Total Strength in India towards the commencement of the year* . . .	56,012	58,037	58,724	58,669	59,547	290,989	58,198	58,012
Increase during the year—								
Recruits	3,687	4,250	3,451	3,534	2,457	17,379	3,476	3,466
Men enlisted in India during the year	161	114	130	111	155	671	134	177
Men re-engaged . . .	1,107	592	1,207	1,090	606	4,602	2,040	2,317
Transfers received . .	1,146	1,069	901	944	1,536	5,596		
Deserters re-joined . .	33	21	23	27	22	126	25	11
TOTAL INCREASE .	6,134	6,046	5,712	5,706	4,776	28,374	5,675	5,971

* Corps arriving in the yearly months of the year give their strength on landing in India.

Gain and Loss Statement for the Army of India for the six years from 1871 to 1876—contd.

	1871.	1872.	1873.	1874.	1875.	Total for the five years.	Average for the five years.	1876.
Decrease during the year—								
Deaths	974	1,396	889	795	1,015	5,069	1,014	881
Passed Invaliding Committees :—								
For Discharge	688	701	596	615	534	12,017	2,403	2,273
For change of climate	1,691	1,719	1,841	1,795	1,837			
Discharged by purchase	70	64	112	149	117	512	102	128
,, by sentence of Courts Martial	106	61	108	88	84	447	90	74
,, service expired	681	579	918	1,309	1,313	4,800	3,085	4,780*
Transfers	2,288	1,803	2,143	2,119	2,273	10,626	15,426	
Desertions	64	92	81	64	78	379	76	55
TOTAL DECREASE	6,562	6,415	6,688	6,934	7,251	33,850	6,770	8,191
Strength of the Army towards the close of each year, not including regiments which may have arrived in course of relief	55,584	57,668	57,748	57,441	57,072	285,513	57,103	55,792

Besides the fully recruited regiments which have replaced the weaker bodies removed from India, 17,379 recruits from England were required to replace the loss by death and invaliding from 1871 to 1875; for in this period 5,147 men died, and 12,035 were invalided, and the strength was thus diminished by 17,182.

The loss by invaliding varies little from year to year :—

Number of Men Lost by Invaliding from 1871 to 1875.

1871.	1872.	1873.	1874.	1875.	Average of the five years.
2,381	2,438	2,434	2,411	2,371	2,407

The facilities for removal to England are great, and are fully taken advantage of; and that the death statistics of the Army of India of the present day show to advantage as a consequence of the weeding out of these sickly men year by year, is not doubtful.

The Army Medical Reports published annually in England debit to India the deaths among invalids during the voyage home and after arrival at Netley. The mortality of the Army of India from 1871 to 1875 is shown to be increased by these additional deaths to this extent :—

1871.	1872.	1873.	1874.	1875.	Average.
70	60	63	42	69	61

Disposal of Invalids from India after arrival in England.

A return furnished to the House of Commons by the War Office in February of the current year, shows that a body of 10,041 invalids for India, arriving between 1870 and 1874, were disposed of after landing in England, as under :—

To duty.	To Pension.	To Asylum.	Died.	Otherwise disposed of.
5,587	3,858	199	174	223

It is satisfactory to find that more than one-half of the men sent home were considered fit for further service.

Volunteering from Regiments leaving India.

It is also satisfactory to know that hitherto the volunteering from regiments on leaving India has compensated to a great extent for the loss of time-expired men. Out of the regiments which have left India in the past five years, nearly 5,000 men elected to remain in the country. The statement for 1876, however, shows that the number of men whose service expired during the year was greater by 1,014 than the average of the previous five years, and with shortened service this source of loss will naturally increase.

Desertions during service in India.

The loss by desertion in the five years was 253 only; the number that deserted was 379, and of these 126 were received back. Nearly one-half of all desertions from the Army of Bengal take place from Calcutta and Dum-Dum. Fort William, from 1871 to 1875, gave 87 desertions, out of a total for the Presidency of 217.

Fluctuation of the Annual Mortality in the period 1871—76.

The number of deaths has ranged from 806 in 1874 to 1,425 in 1872; or, excluding cholera deaths, from 752 in 1876 to 998 in 1872. In the past four years the range of the annual mortality has been within 100, if cholera be excluded. And it is right that cholera should be thus placed separately, since this cause of mortality is as yet an item incapable of being reduced to an average that can be reckoned on, even approximately.

* Time-expired 1,974, 1,014 above the average of 1871—75.

The total deaths of the Army in India are shown below :—

	1871.	1872.	1873.	1874.	1875.	1876.
	996	1,425	899	806	1,021	886
Cholera deaths . .	62	427	47	11	194	134
	934	998	852	795	827	752

The Ratios of Sickness, Mortality, and Invaliding for the Army of India, and the general deduction warranted by these ratios.

In the Report of the Army Sanitary Commission, published in 1863, the anticipation was made, that, under the improved conditions then proposed, the Army of India would eventually show a death-rate of 20 per 1,000 ; and a lower rate was anticipated in the event of the chief causes of mortality being found to be more or less under control when systematically studied, and when a correct etiology was made the basis of sanitary measures. And the anticipated reduction of mortality would, it was inferred, be attended by a corresponding diminution of the hospital population, and an increase of the effective strength.

The following are the results for the past six years :—

Annual Ratios of Sickness, Mortality, and Invaliding.

ARMY OF INDIA, 1871-76.

Daily Sick-rate per 1,000 of Strength.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
57·9	56·2	55·3	57·5	56·8	56·7	56·6

Admission-rate per 1,000 of Strength.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
1449·6	1497·0	1328·1	1357·7	1337·8	1393·7	1361·5

Death-rate per 1,000 of Strength for Cholera.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
1·09	7·25	·80	·18	3·32	2·54	2·32

Death-rate per 1,000 for Violent Deaths, Accidental and Suicidal.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
1·81	1·63	1·70	1·66	1·73	1·71	1·61

Died per 1,000 from All Causes after deducting Cholera and Violent Deaths.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
14·63	15·33	12·80	11·74	12·43	13·37	11·39

Loss per 1,000 by Invaliding.

1871.	1872.	1873.	1874.	1875.	Average of five years.	1876.
43·62	43·21	44·58	43·78	40·25	43·09	38·90

All throughout is to be observed the tendency to system and order, except in the one main cause of fluctuation, namely, cholera. The daily sick-rates are most consistent; and in the last four years the admission-rates have been nearly identical. The proportion of violent deaths varies scarcely at all from year to year; and the deaths from climatic diseases have varied by only 1 per 1,000 for the last four years, while the ratio is as small as the most sanguine observer could have hoped for ten years since. The ratio for 1876 is smaller than that of any previous year; and the aspect of the whole seems to indicate that we are holding under control the sickness and mortality of the Army, and that chance and the vicissitudes of Indian service have done little in this period to disturb the normal equilibrium. The more we go into details the more will this steadiness become apparent, and these results afford a good guarantee that in the future what has been accomplished will be maintained. We have had no examples of the troops within a provincial area becoming rapidly deteriorated as a body by evil epidemic influences.

Fluctuations in the Ratios of Sickness and Mortality must occur, since epidemic seasons certainly recur at intervals in India.

Seasons such as 1856, 1860-61, and 1869 must recur in India, but it is our expectation that in such a case the influence of an epidemic of fever or even of cholera, shall fall lightly in comparison with former experience, and that the constitutions of the men affected shall not be undermined beyond recovery, as was too frequently the case in former times. But I should hold out a false hope were I to allege that under favourable sanitary conditions the effects of epidemic influences, over which we have no control, can be altogether abrogated. Take the years 1868 and 1869 as illustrative; and while it is true that the epidemics of malaria and cholera ran a parallel course all over Northern and Western India, it was fever, and not cholera, which determined the general character of the year over the vast tract affected from the Ganges to the Indus:

Army of Bengal in the epidemic year 1869 contrasted with the Army in the preceding year 1868, a healthy and non-epidemic year.

	Daily sick per 1,000.	Number of admissions.	Deaths excluding cholera.	Cholera deaths.
1868 . .	52·5	45,394	578	57
1869 . .	59·5	59,882	915	570

The Army of India cannot be insured against a similar experience in time to come; we must be fully prepared for the possible occurrence, and we must not be disappointed if, in the future, such exceptional visitations come in to affect our average after a succession of favourable seasons.

Very consistent, too, is the incidence of mortality when viewed month by month.

The Mortality of the Army in relation to the Influences of the Seasons. Aggregate of the monthly results of the six years 1871—76.

The great mortality from fever and bowel complaints of the last quarter of the year, so characteristic of our older statistics, has almost disappeared, and in November begins a condition consistently maintained to the end of January. February, March, and April, taken as a quarter, exhibit disease at a minimum; and in the six months from May to October we have before us a maximum in which the exaggeration is normal and legitimate. Deducting the cholera deaths of the period, 5,158 men died in the six years 1871—76, and these deaths were distributed month by month thus:—

Month.	Died.	Died per cent. of total deaths.		Death-rate per 1,000.	
November .	406	7·9	23·8	1·16	3·52
December . .	407	7·9		1·17	
January . .	409	8·0		1·19	
February . .	348	6·8	20·0	1·00	2·93
March . .	345	6·7		·98	
April . .	336	6·5		·95	
May . .	430	8·3	56·3	1·22	8·30
June . .	537	10·4		1·53	
July . .	474	9·2		1·35	
August . .	469	9·1		1·34	
September .	532	10·3		1·52	
October . .	465	9·0		1·34	
TOTAL . .	5,158	100·0		14·75	

Heat apoplexy, which is a variable item from year to year, doubles in June; and fevers, dysentery, and hepatitis cause the high death-rate of September; in June 1·53 per 1,000 died, and in September 1·52—and these were the highest monthly ratios. July, August, and October follow with ratios of 1·34, 1·34, and 1·35 per 1,000; May, with heat influence tending towards its maximum, gives 1·22; February, March, and April, when excessive climatic influences are in abeyance, give an average of ·98; and the cold-weather months, November, December, and January, afford ratios of 1·16, 1·17, and 1·19: and the whole makes up an annual loss of 14·75 per 1,000.

The Daily Sick-rate fluctuated between a maximum of 68 and a minimum of 47, taken over the seventy-two months of the period.

In no month of the seventy-two from 1871 to 1876, did the daily sick-rate of the Army of India, as a body, reach 7 per cent.; and it fell below 5 per cent. in six months only of the period. From 5 to 6 per cent. was the range in forty-five out of the seventy-two months; the maximum reached was 68 per 1,000, and this in only one month, and the minimum of 47 occurred in two months only.

Number Daily Sick per 1,000 of the Army of India from 1871—76.

Number of months.	47—50.	51—55.	56—60.	61—65.	66—68.
72	12	22	17	15	6

The Ratios of Sickness, Mortality, and Invaliding for the Army of Bengal only, for fifteen years from 1861 to 1875, contrasted in five-year periods.

We have the opportunity of contrasting in three periods of five years the ratios for the Army of Bengal. The daily sick-rate for the five years 1871—75 is identical with that of the five years 1866—70, being 57·5 per 1,000, which contrasts with a ratio of 70·6 for the five years preceding 1866. The admission-rates are as below: 1871—75, 1439·8; 1866—70, 1571·3; 1861—65, 1830·5. The cholera death-rate fell from 9·02 in 1861—65 to 6·98 in 1866—70, and to 3·23 in 1871—75: and deaths from climatic diseases, which varied between 16 and 20 per 1,000 from 1861 to 1870, and rose to 25 only in the bad year 1869, sank to an average of 13·59 in the period 1871—75.

Taken as a whole, this statement may be regarded as indicating that causes are in operation which tend to define the bounds which disease in India, when unwatched and unheeded, is certain to transgress.

Comparative Statement showing the Ratios of Sickness and Mortality in the Army of Bengal from 1861 to 1875.

THE RATIOS OF SICKNESS, MORTALITY, AND INVALIDING FOR THE ARMY OF BENGAL FOR THE 15 YEARS 1861—75, CONTRASTED IN 5-YEAR PERIODS.

Daily Sick-rate per 1,000 of Strength.

1861.	1862.	1863.	1864.	1865.	1861—65.
82·0	76·8	69·6	62·1	60·2	70·6
1866.	1867.	1868.	1869.	1870.	1866—70.
58·1	53·4	52·5	59·5	63·8	57·5
1871.	1872.	1873.	1874.	1875.	1871—75.
59·2	56·8	55·7	58·7	57·6	57·5

Admission-rate per 1,000 of Strength.

1861.	1862.	1863.	1864.	1865.	1861—65.
2045·6	1970·8	1838·4	1641·6	1605·3	1830·5
1866.	1867.	1868.	1869.	1870.	1866—70.
1501·7	1412·5	1438·3	1729·5	1731·9	1571·3
1871.	1872.	1873.	1874.	1875.	1871—75.
1507·7	1514·1	1349·8	1443·8	1387·5	1439·8

Death-rate per 1,000 of Strength from Cholera.

1861.	1862.	1863.	1864.	1865.	1861—65.
23·73	9·61	4·09	2·55	3·12	9·02
1866.	1867.	1868.	1869.	1870.	1866—70.
1·37	13·84	1·81	16·46	·63	6·98
1871.	1872.	1873.	1874.	1875.	1871—75.
·71	10·66	·90	·21	3·66	3·23

Death-rate per 1,000 from Violent Deaths.

1861.	1862.	1863.	1864.	1865.	1861—65.
1·32	1·45	1·94	1·81	1·45	1·78
1866.	1867.	1868.	1869.	1870.	1866—70.
2·09	1·30	1·62	1·62	1·83	1·70
1871.	1872.	1873.	1874.	1875.	1871—75.
1·74	1·75	1·66	1·71	1·53	1·68

Died per 1,000 from All Causes after deducting Cholera and Violent Deaths.

1861.	1862.	1863.	1864.	1865.	1861—65.
20·88	17·05	18·09	16·74	19·67	18·50
1866.	1867.	1868.	1869.	1870.	1866—70.
16·65	15·81	16·68	24·81	19·44	18·80
1871.	1872.	1873.	1874.	1875.	1871—75.
15·50	15·15	12·89	12·78	12·37	13·59

Loss per 1,000 from Invaliding.

1861.	1862.	1863.	1864.	1865.	1861—65.
28·09	31·50	34·97	36·75	46·87	35·64
1866.	1867.	1868.	1869.	1870.	1866—70.
49·04	47·28	45·49	53·98	52·50	49·66
1871.	1872.	1873.	1874.	1875.	1871—75.
47·53	43·73	42·16	40·39	38·71	42·50

The proportion of the Army of Bengal which has now the benefit of change to a hill climate, and the results of residence in the hills.

A large proportion of the Army has now the chance of comparative immunity afforded to it by removal during the hot season from the influences of the plains. In Bengal one-fourth of the strength is now located in the hills during the hot weather; besides women and children, the hill stations received in 1876, 6,791 men; the convalescent depôts, 2,184; and the Cherat Sanitarium, 700,—a total of 9,675 out of a strength of 36,500.

Taken month by month, the average is much smaller, since the strength of the depôts is not maintained in the cold weather, and because the regiments at hill stations are frequently recalled to the plains for the cold months, while the reliefs also are so timed that the new regiments reach the hill station only before the setting in of the heat.

Unhealthy regiments,—drawn, for example, from Mecan Meer or Peshawar,—continue to give a high admission-rate in any hill climate; but in no case has the phenomenon observed in the years before the mutiny occurred, that men continued to die after arrival at hill stations, and in a higher ratio in the second than in the first year. In the five years preceding 1857, the three regiments at Kasauli, Dagshai, and Subathu gave an annual death-rate of 27 per 1,000. Of a total of 260 deaths, 140 were caused by dysentery and diarrhœa; and out of the 140, upwards of 100 occurred in the second year of the occupation of the hill station. Of the remaining deaths, many were caused by debility, scurvy, spleen disease, and peritonitis, showing the permanent damage to the constitution brought about by the climate of Peshawar, from which three of the regiments were transferred.

The death-rate of the hill stations is now very consistent, when the cholera-rate is excluded. Our depôts and hill stations of Northern India have not escaped in the epidemics of 1872 and 1875-76, and the same contingency must be regarded as probable when cholera again invades the Punjab.

These are the general results for the hill stations of Bengal:—

Ratio per 1,000 of Strength.

	Strength.	Admissions.	Daily Sick.	Deaths, excluding Cholera.	Ratio for Cholera.
1871 . .	3,652	1114·7	48·5	9·04	...
1872 . .	3,379	846·7	42·9	11·84	6·22
1873 . .	4,149	1081·0	51·3	9·88	...
1874 . .	4,511	911·8	43·5	9·53	...
1875 . .	4,450	996·2	42·9	7·41	·90
1876 . .	5,393	1016·0	45·6	11·12	2·23

In 1871 and 1872 the road-making parties were not included in these totals. In 1871 a party of 1,127 men gave 4 deaths in all; and in 1872, out of 668 men engaged on the same work, 3 only died.

Cherat has been used throughout the period as a sanitarium for Peshawar and Nowshera in the hot months. In the epidemics of 1872 and 1876 not a single case of cholera showed itself at Cherat. The deaths have averaged 8 in each year, out of a strength of 750. In the six years 46 deaths occurred; some were due to disease contracted at Peshawar, but 18 were caused by enteric fever, which originated in the sanitarium. With two exceptions, these fever deaths occurred in young men under 25, and generally in men new to the country. Of the six fatal cases during the last three years, the longest period of residence was 16 months.

Notwithstanding the prevalence of this special cause of mortality, Cherat has hitherto admirably fulfilled the purpose on account of which its occupation was urged.

The convalescent depôts have naturally a much higher daily sick-rate; but here, again, the mortality is small in proportion to what was considered normal in past times:—

Convalescent Depots of the Bengal Presidency.

	Strength.	Ratio per 1,000. Daily sick.	Death-rate, excluding Cholera.	Cholera-rate.
1871 . .	2,275	93·4	12·75	...
1872 . .	2,320	96·7	14·23	15·51
1873 . .	2,052	100·0	11·21	...
1874 . .	2,157	89·0	11·59	...
1875 . .	2,094	89·3	11·46	4·30
1876 . .	2,158	86·7	10·66	7·88

The favourable aspect of the death-rate of these Depôts must be viewed in connection with the increased opportunities for the despatch of invalids to England in the spring of each year.

The habits of the soldier as affecting the ratios of sickness and mortality.

The habits of the soldier tell in his favour or against him, as well as general influences, climatic or epidemic.

Drunkenness.

It is gratifying to note that in the Army of India in the past six years sixty deaths only were attributed to *delirium tremens*, of which 33 occurred in 1871 and 1872, and 27 in the four following years. The annual average number of deaths for the Army of Bengal from 1871 to 1876 is 4·7; for the five years preceding 1871 it was 14·0; and for 1861 to 1865, 17·6 died on the average annually.

The number of old and drunken soldiers is no doubt less, and the Army, as a body, is younger and more rapidly weeded. A steady minimum appears to have been reached during the last four years—

Delirium Tremens of the Army of India, 1871 to 1876.

	1871.	1872.	1873.	1874.	1875.	1876.
Cases	290	245	163	181	201	189
Treated per 1,000 of Strength .	5·1	4·2	2·8	3·1	3·4	3·3
Died out of each 100 cases treated	7·6	4·5	3·1	4·4	4·0	3·2

Out of the total of 60, 35 who died of *delirium tremens* were sergeants, 8 corporals, and 17 privates. The large proportion of sergeants liable to die from this cause was noticed in previous reports.

The statistics of drunkenness do not show much improvement from year to year. The number of cases of drunkenness reported, averaged annually in Bengal 28·7 per cent. of the strength of the Army, in Madras 44·0, and in Bombay 40·7.

Cases of Drunkenness reported from 1871 to 1875.

	1871.	1872.	1873.	1874.	1875.	Average.		
Army of Bengal .	11,750	11,779	8,976	10,988	8,926	10,484	out of a strength of	36,542
Army of Madras .	*	4,960	5,051	5,346	4,683	5,010	,,	11,393
Army of Bombay .	4,643	4,552	4,568	3,568	4,259	4,318	,,	10,607

Statistics of Venereal Disease. The statistics of the married as compared with those of the unmarried soldier contained in a separate report.

Venereal diseases still contribute enormously to swell the admission-rate and daily sick-rate of the Armies of the three Presidencies, and the ratios of 1876 are not more favourable than the average of 1871—75. The admissions from venereal affections of all kinds still afford annually a ratio of not less than 20 per cent. in relation to the strength. If this does not imply that a fifth part of the whole Army passes annually through the hospital for venereal disease in some form, it is still very serious to find in five years an admission-rate equal to that of the strength of the whole Army of India. Seven thousand cases of secondary affections were treated in the five years; of these 534 were invalided under the head of secondary syphilis; but it is probable that very many more of those affected disappeared from the Army, sent home for rheumatism or general debility. Regarded merely as affording a certain ratio, the invaliding from syphilis cannot be said to form a large proportion of the total invaliding; and this is to be observed, that if the ratio has not diminished it has not gone on increasing:—

Invalided per 1,000 for Secondary Syphilis, 1871—76.

1871.	1872.	1873.	1874.	1875.	1876.
2·02	1·86	1·43	1·63	1·61	1·69

It may be objected that orchitis and inflammation of the inguinal glands are not necessarily derived from a venereal source, and should not be shown as below. But the large number of cases entered, leaves no doubt of the origin of the great majority; and the many forms of venereal which escape tabulation will more than compensate for exaggeration of the ratio due to such a cause.

A total of 62,267 admissions from diseases of a venereal origin is made up thus:—

Venereal Affections, Army of India, 1871—75.

Aggregate Strength 292,615.

	Admissions.	Ratio per 1,000 per annum.	Ratios of 1876.
Primary syphilis . . .	18,588	63·5	59·8
Gonorrhœa . . .	24,963	85·3	93·4
Phymosis . . .	252		
Stricture . . .	1,105	10·5	9·1
Warts . . .	756		
Orchitis, gonorrhœal . .	969		
TOTAL .	46,633	159·3	162·3
Secondary syphilis . .	6,999	23·9	23·9
Inflammation of the inguinal glands . . .	5,318	29·5	28·1
Orchitis	3,317		
TOTAL .	62,267	212·7	214·3

In the table below the admissions and ratios are detailed year by year, and for the Armies of the Three Presidencies.

* The Return from Madras for 1871 was not received.

Venereal Diseases of the European Army, 1871—75.

Army of Bengal.

Forms of Disease.	1871. Strength, 35,071.		1872. Strength, 36,591.		1873. Strength, 36,817.		1874. Strength, 37,190.		1875. Strength, 37,814.		1871-75. Strength, 183,483.		1876. Strength, 37,028.	
	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.
Primary Syphilis	2,572	73·3	2,266	61·9	1,809	49·1	2,466	66·3	2,696	71·3	11,809	64·4	2,215	59·8
Gonorrhœa	3,371	96·1	3,194	87·2	3,178	86·3	3,683	99·0	3,559	94·1	16,985	92·6	3,730	100·7
Phymosis	23		39		23		21		43		149		24	
Stricture	134	19·8	152	19·0	133	9·5	158	9·8	137	15·5	714	11·2	147	9·6
Warts	104		74		96		104		155		533		111	
Orchitis, gonorrhœal	119		112		97		81		252		661		72	
Total	6,323	189·2	5,837	159·1	5,336	144·9	6,513	175·1	6,842	180·9	30,851	168·2	6,299	170·1
Secondary Syphilis	849	24·2	830	22·6	660	17·9	860	23·1	787	20·8	3,986	21·7	784	21·2
Inflammation of the inguinal glands	630	32·3	521	27·2	503	26·4	427	24·4	539	22·2	2,620	26·4	537	26·3
Orchitis	563		476		469		481		301		2,239		436	
Total	8,305	236·7	7,664	208·9	6,968	189·2	8,281	222·6	8,469	223·9	39,687	216·3	8,056	217·6

Army of Madras.

Forms of Disease.	1871. Strength, 10,673.		1872. Strength, 11,369.		1873. Strength, 11,413.		1874. Strength, 11,556.		1875. Strength, 11,253.		1871-75. Strength, 56,264.		1876. Strength, 11,155.	
	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.
Primary Syphilis	597	55·9	743	65·4	715	62·6	917	79·3	786	69·8	3,758	66·8	675	60·5
Gonorrhœa	855	80·1	700	61·5	656	57·5	767	66·4	887	78·8	3,865	68·7	884	79·3
Phymosis	8	6·6	12	7·2	6	7·4	10	9·8	9	12·7	45	8·7	4	8·4
Stricture	27		30		37		50		54		198		36	
Warts	21		21		19		23		27		111		17	
Orchitis, gonorrhœal	14		19		22		30		53		138		37	
Total	1,522	142·6	1,525	134·1	1,455	127·5	1,797	155·5	1,816	161·3	8,115	144·2	1,653	148·2
Secondary Syphilis	383	35·9	333	29·2	285	24·9	348	30·1	428	38·0	1,777	31·6	329	29·5
Inflammation of the inguinal glands	318	45·8	314	37·1	266	34·5	313	38·7	268	35·3	1,479	38·2	238	32·2
Orchitis	171		103		128		134		129		670		121	
Total	2,394	224·3	2,280	200·4	2,134	186·9	2,592	224·3	2,641	234·6	12,041	214·0	2,341	209·9

Army of Bombay.

Forms of Disease.	1871. Strength, 10,740.		1872. Strength, 10,734.		1873. Strength, 10,586.		1874. Strength, 10,507.		1875. Strength, 10,301.		1871-75. Strength, 52,868.		1876. Strength, 10,323.	
	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000	Admissions.	Ratio per 1,000.	Admissions.	Ratio per 1,000.
Primary Syphilis	654	60·9	584	54·4	619	58·5	662	63·0	502	48·7	3,021	57·1	611	59·2
Gonorrhœa	830	77·3	813	75·7	943	89·1	740	70·4	787	76·4	4,113	77·8	849	82·2
Phymosis	14		9		8		10		17		58		5	
Stricture	38	8·2	20	6·7	31	8·9	45	7·8	59	19·1	193	10·1	50	8·4
Warts	11		10		25		13		53		112		12	
Orchitis, gonorrhœal	25		33		30		14		68		170		20	
Total	1,572	146·4	1,469	136·8	1,656	156·5	1,484	141·2	1,486	144·2	7,667	145·0	1,547	149·8
Secondary Syphilis	270	25·1	151	14·0	257	24·3	285	27·1	273	26·5	1,236	23·4	285	27·6
Inflammation of the inguinal glands	246	31·0	191	25·6	275	34·8	271	33·9	236	29·5	1,219	31·0	230	30·4
Orchitis	87		84		93		85		68		417		84	
Total	2,175	202·5	1,895	176·4	2,281	215·6	2,125	202·2	2,063	200·2	10,539	199·4	2,146	207·8

The special returns for married and unmarried soldiers have been discontinued since 1871. The results for the five years 1867-71 were summarised in the Annual Report of the Sanitary Commissioner for 1871, pages 49-52, and as they seemed consistent, it was deemed unnecessary to continue the enquiry.

In the two tables which conclude this chapter, the results for the Army of India are aggregated and the ratios shown year by year, as well as for the period; and the results of the period for the Armies of the Three Presidencies are placed side by side, to contrast the ratios of disease and death as these are manifested in Northern, Western and Southern India.

The general statistics of the Three Presidencies contrasted on the results of the period 1871-76.

With the highest death-rate and daily sick-rate, Madras gives the lowest admission-rate. The meaning of this is, that in the climate of Southern India, while dysentery and hepatitis come forward in an excessive ratio, the climatic fevers of Northern and Western India comparatively disappear; and, indeed, to show to the full the contrast of the fever ratio it is necessary to exclude the statistics of Kamptee, which, as regards liability to fever, is associated naturally and geographically with Bengal and Bombay, and not with Madras.

The ratio for enteric fever is as high in Madras as in Bengal or Bombay; and it is not in the cases of fevers returned as "continued" or "remittent" that the contrast is chiefly marked, although for such fevers Bengal shows an admission-rate of 175 per 1,000 as contrasted with a ratio of 111 for Madras.

In the years 1871-76, Kamptee gave more than the half of the admissions of the Madras Presidency attributed to intermittent fevers—3,174 out of 6,253 admissions. Leaving out these admissions and the strength of the troops cantoned in this station, the ratio for intermittent fever for the Madras Presidency stands thus, in contrast with the ratios for Bengal and Bombay :—

Ratio for Intermittent Fevers in the Three Presidencies contrasted.

Admitted per 1,000 of Strength.

	Madras (excluding Kamptee).	Bengal.	Bombay.
1871	64·0	417·3	510·3
1872	60·7	315·4	502·0
1873	55·9	352·7	411·6
1874	32·9	358·7	334·6
1875	40·1	336·9	384·8
1876	48·2	398·3	411·8
1871-76	50·3	362·8	426·9

This statement shows that cases of intermittent fever are seven times in the Army of Bengal, and eight times in the Army of Bombay, more numerous than in the Army of Madras. As a consequence, in the six years, the Madras Army afforded only 144 admissions on account of spleen enlargement—an average of 24 annually, out of a strength exceeding 11,000.

To compensate for this, dysentery and hepatitis, taken together, are doubled in Madras as compared with Bengal and Bombay:

ADMISSION-RATE FOR DYSENTERY AND HEPATITIS IN THE ARMIES OF THE THREE PRESIDENCIES CONTRASTED.

Admitted per 1,000 of Strength.

	Dysentery.			Hepatitis.		
	Madras.	Bengal.	Bombay.	Madras.	Bengal.	Bombay.
1871	73·0	34·2	23·2	66·5	59·7	44·5
1872	85·1	35·0	34·6	59·3	56·0	34·9
1873	91·8	29·1	27·1	81·7	50·5	52·0
1874	82·2	26·2	23·7	82·5	45·2	48·0
1875	68·7	27·9	29·0	71·1	40·8	40·4
1876	63·9	26·7	27·5	63·3.	46·3	44·1
1871-76	77·7	29·8	27·5	70·8	49·7	44·0

Dysentery and Hepatitis combined.

	Madras.	Bengal.	Bombay.
1871	139·5	93.9	67·7
1872	144·4	91·0	69·5
1873	173·5	79·6	79·1
1874	164·7	71·4	71·7
1875	139·8	68·7	69·4
1876	127·2	73·0	71·6
1871-76	148·5	79·5	71·5

Composition of 100 deaths in the Armies of the Three Presidencies.

It necessarily follows that the liability to death from hepatitis and dysentery is doubled in Madras, while the chances of death from fevers other than enteric are small, compared to what they are in the other presidencies.

This is the comparative expectation, reckoning liability at 100—

	Madras.	Bengal.	Bombay.	
Dysentery	51·44	26·93	21·63	=100
Hepatitis	45·24	27·31	27·45	=100
Fevers, other than enteric . .	19·63	51·85	28·52	=100

This statement shows how we may expect 100 deaths to be made up in the Armies of Bengal, Madras, and Bombay. It is framed on the results of the six years 1871-76, excluding cholera, small-pox, and deaths from violence:

Bengal.		Bombay.		Madras.	
Hepatitis . 15 } Dysentery . 9 }	24	Hepatitis . 17 } Dysentery . 9 }	26	Hepatitis . 23 } Dysentery . 17 }	40
Enteric fevers .	13	Enteric fever .	14	Heart disease .	13
Other fevers .	11	Apoplexy . .	13	Enteric fever .	10
Heat apoplexy .	11	Phthisis . .	10	Phthisis .	9
Heart diseases .	9	Heart disease .	9	Heat apoplexy .	9
Phthisis . .	9	Fevers not returned as enteric .	7	Fevers not returned as enteric	4
Respiratory diseases	8	Respiratory diseases	5	Respiratory diseases	2
Delirum tremens .	1	Delirium tremens	2	Delirium tremens	2
All others .	14	All others . .	14	All others .	11
TOTAL . .	100		100		100

The deaths and death-rate are detailed, and the comparative liability to death from the chief causes of mortality is defined in the following Table:—

Aggregate of the Average Annual Strengths of the six years 1871-76, on which the ratios of the table are calculated.

Army of Bengal.	Army of Bombay.	Army of Madras.
219,290	63,279	67,451

*Deaths and Death-rates for the six-year period, and the Ratio of Liability to Death from the chief causes of mortality, contrasted in the Three Presidencies.**

Causes of Deaths.	Number of Deaths.			Death-rate per 1,000.			Comparative ratio of liability to death.			
	Bengal.	Bombay.	Madras.	Bengal.	Bombay.	Madras.	Bengal.	Bombay.	Madras.	Total.
Hepatitis	427	124	218	1·95	1·96	3·23	27·31	27·45	45·24	100
Dysentery	268	62	157	1·22	·98	2·33	26·93	21·63	51·44	100
Enteric fever	373	105	93	1·70	1·66	1·38	35·87	35·02	29·11	100
Other fevers	306	49	36	1·40	·77	·53	51·85	28·52	19·63	100
Heat apoplexy	308	98	82	1·40	1·55	1·22	33·57	37·17	29·26	100
Heart disease	268	67	118	1·22	1·06	1·75	30·27	26·30	43·43	100
Phthisis pulmonalis . . .	269	72	83	1·23	1·14	1·23	34·17	31·66	34·17	100
Respiratory diseases . . .	222	36	18	1·01	·57	·27	54·60	30·80	14·60	100
Delirium tremens	28	15	17	·13	·24	·25	20·97	38·71	40·32	100
All other causes	410	104	102	1·87	1·64	1·51	37·25	32·67	30·08	100
All causes . .	2,879	732	924	13·13	11·57	13·70	34·20	30·13	35·67	100

* Cholera, smallpox, and violent deaths are omitted in this contrasted statement.

The characteristic distinction is maintained in the Invaliding of Madras; out of each 100 cases invalided, 32 were attributed to dysentery or liver affection, against 20 in Bengal and 18 in Bombay. On the average of the six years 1871-76, 100 cases of invaliding from the Three Presidencies were constituted thus :—

	Madras.	Bengal.	Bombay.
Dysentery	14 } 32	5 } 20	4 } 18
Hepatitis	18 }	15 }	14 }
General debility	18	20	26
Spleen disease	...	1	1
Fevers	2	4	8
Respiratory diseases	2	4	3
Heart disease	6	7	4
Palpitation	4	6	3
Epilepsy and brain affections	3	3	3
Mental affections	2	3	3
Phthisis	9	9	7
Rheumatism	4	6	4
Syphilis	6	4	4
All other causes	12	13	16
All causes	100	100	100

Dysentery and hepatitis cause an increase in the invaliding-rate of Madras, as compared with that of Bengal and Bombay, of 6 per 1,000, the averages being for Madras 45·71, for Bengal 39·87, and for Bombay 39·25 : dysentery gives in Madras an annual loss per 1,000 of 6·58, in Bengal 1·79, and in Bombay 1·56 ; and hepatitis and dysentery, taken together, 14·56, 7·96, and 6·89 in the Three Presidencies respectively. The ratios for fever and spleen affections fall to a minimum, as in the case of the admission-rate for these diseases, and the relative liability to invaliding is less than one-third in the case of the Army of Madras.

The extent of invaliding in the Three Presidencies is contrasted in this statement, which exhibits also the ratio contributed by the chief causes on account of which the soldier is sent home sick from India :—

Aggregate of the average annual strengths of the six years, 1871-76.

Army of Bengal.	Army of Bombay.	Army of Madras.
219,290	63,279	67,451

Invaliding rates, and the Ratio of Liability to the Chief Causes of Invaliding contrasted in the Three Presidencies, on the results of 1871-76.

Causes of Invaliding.	Number of cases of invaliding.			Invaliding rate per 1,000.			Ratio of liability.			
	Bengal.	Bombay.	Madras.	Bengal.	Bombay.	Madras.	Bengal.	Bombay.	Madras.	Total = 100.
Fevers	334	189	44	1·52	2·99	·65	29·46	57·95	12·59	100
Phthisis pulmonalis	809	174	273	3·69	2·75	4·05	35·18	26·21	38·61	100
Rheumatism	506	110	125	2·31	1·74	1·85	39·15	29·49	31·36	100
Syphilis	320	112	191	1·46	1·77	2·83	24·09	29·21	46·70	100
Epilepsy and brain affections	276	77	106	1·25	1·22	1·57	30·94	30·20	38·86	100
Mental affections	272	69	70	1·25	1·09	1·04	36·98	32·25	30·77	100
Heart disease	619	88	170	2·82	1·39	2·52	41·90	20·66	37·44	100
Palpitation	527	80	114	2·40	1·26	1·69	44·86	23·55	31·59	100
Respiratory diseases	331	75	68	1·51	1·18	1·01	40·81	31·89	27·30	100
Dysentery	392	99	444	1·79	1·56	6·58	18·03	15·71	66·26	100
Hepatitis	1,354	337	538	6·17	5·33	7·98	31·67	27·36	40·97	100
Spleen disease	100	28	10	·46	·44	·15	43·81	41·90	14·29	100
General debility	1,790	658	558	8·16	10·40	8·27	30·41	38·76	30·83	100
All other causes	1,114	388	372	5·08	6·13	5·52	30·36	36·64	33·00	100
All causes	8,744	2,484	3,083	39·87	39·25	45·71	31·94	31·44	36·62	100

Table showing the Aggregate of Sickness and Mortality in the Army of India during the Five Years from 1871 to 1875, and the prevalence of the principal Diseases in each Month.

Months.	Aggregate strength of the five years.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.															Violent Deaths.	Suicidal Deaths.
						Cholera.	Small-pox.	Enteric Fever.	All other Fevers.	Apoplexy.	Delirium Tremens.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Diseases.		
January	287,900	15,077	52·4	354	1·23	...	4	28	21	8	1	25	55	2	51	36	42	1	1	...	33	40	6
February	280,773	14,889	51·2	391	1·03	...	3	21	11	7	2	33	61	...	22	29	35	...	1	2	40	35	9
March	294,839	14,538	49·3	293	·99	6	5	15	17	13	1	21	44	...	24	35	21	...	1	2	40	36	12
April	295,244	15,309	51·9	309	1·05	24	7	42	29	28	6	19	33	1	16	24	22	...	...	1	25	17	15
May	294,352	16,196	55·0	436	1·48	67	7	53	30	60	5	29	48	1	13	28	21	...	...	1	37	21	15
June	293,820	16,949	57·7	510	1·73	44	4	57	36	142	7	20	49	...	11	24	30	...	...	2	46	31	7
July	292,981	17,718	60·5	461	1·57	59	2	50	28	61	9	31	39	...	15	34	29	1	2	1	37	21	12
August	292,328	18,513	63·3	644	2·20	260	...	48	37	29	5	45	39	3	6	31	30	1	1	2	49	32	16
September	291,274	18,937	65·0	642	2·20	181	...	37	57	25	6	59	78	2	7	37	24	...	...	2	56	25	8
October	289,079	18,410	63·7	459	1·59	67	...	34	41	7	8	49	75	1	14	37	36	...	...	2	40	36	12
November	292,979	16,876	57·6	387	1·32	39	...	21	32	6	3	47	63	1	17	37	35	...	1	...	51	25	18
December	290,409	15,417	53·1	351	1·21	3	1	20	18	8	1	49	48	...	42	40	37	...	1	...	35	40	8
						741	33	466	357	394	54	417*	672	11	238	392	362	3	10	11	489	349	148
						Died per 1,000 of the Average Strength.																	
For the five years	292,162	16,569	56·7	5,147	17·62	2·54	·11	1·59	1·22	1·35	·18	1·43	2·30	·04	·82	1·34	1·24	·01	·03	·04	1·67	1·20	·51

* In the five years, 33 deaths were returned under the head of Diarrhœa.

Causes of Admissions.	Number of Admissions into Hospital in each Month.												Total admitted during the Five Years.	Admitted per 1,000 of Strength.	Died out of each Hundred Cases treated.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	9	37	130	56	87	415	250	87	51	7	1,129	3·9	65·63
Small-pox	17	20	28	65	39	16	11	...	2	1	5	3	207	·7	15·94
Enteric fever	91	59	59	110	116	88	91	100	151	65	46	71	1,047	3·6	44·51
Fever, Intermittent	5,695	3,905	4,159	5,390	6,355	6,894	7,706	9,294	11,072	13,605	11,448	8,089	93,435	319·8	
Fevers, Remittent and Continued	1,444	1,403	2,476	4,211	4,803	4,974	5,000	4,825	5,754	4,689	3,038	2,013	44,630	152·7	·26
Apoplexy	19	18	46	79	127	311	164	75	56	26	17	12	950	3·3	41·47
Delirium Tremens	87	64	89	89	88	72	124	130	115	99	81	60	1,089	3·7	5·00
Dysentery	874	657	706	785	819	830	1,063	1,357	1,358	1,158	957	982	11,546	39·5	3·33
Diarrhœa	985	766	1,115	1,467	1,292	1,389	2,515	2,733	1,857	1,245	1,144	1,215	17,723	60·7	·19
Hepatitis	1,094	1,080	1,120	1,174	1,255	1,388	1,576	1,541	1,597	1,447	1,214	1,116	15,602	53·4	4·31
Spleen disease	112	144	134	145	152	169	183	156	146	187	152	163	1,843	6·3	·60
Respiratory diseases	2,420	2,181	2,173	2,011	1,705	1,479	1,632	1,544	1,407	1,518	1,734	2,126	21,930	75·0	1·09
Phthisis Pulmonalis	225	165	202	141	162	218	269	249	261	265	281	245	2,683	9·2	13·49
Scurvy	8	5	8	7	9	15	9	10	5	9	11	10	106	·4	9·43
Rheumatism	1,484	1,346	1,482	1,443	1,424	1,515	1,588	1,531	1,456	1,405	1,189	1,236	17,099	58·5	
Venereal diseases	5,666	5,008	5,805	5,431	4,328	4,117	4,371	4,055	3,823	3,811	3,904	4,603	54,922	188·0	
Eye diseases	423	381	561	635	567	527	569	650	630	527	419	388	6,277	21·5	·46
Abscess and Ulcer	2,089	1,979	2,300	2,526	2,388	2,576	2,724	2,361	2,130	1,893	1,907	1,832	26,705	91·4	
Wounds and accidents	2,341	2,253	2,640	2,477	2,268	2,117	2,154	1,968	1,973	2,127	2,074	2,063	27,055	92·6	
All other causes	3,707	3,469	4,496	5,285	5,421	5,470	6,721	6,202	6,283	5,745	4,500	3,931	61,221*	209·5	
	28,691	24,894	29,599	33,499	33,448	34,221	38,560	39,106	40,326	39,909	34,172	30,765	407,190		
	Admitted per 1,000 of the Average Strength in each Month.														
	99·7	85·6	100·4	113·5	113·6	116·5	131·6	133·8	138·4	138·1	116·6	105·9	1393·7		

* Out of this total the Epidemic Dengue of 1872 gave 7,486 admissions, a ratio of 25·6 per 1,000.

Comparative Statement of the Annual Ratios of Sickness and Mortality of the Army of India, for each year from 1871 to 1876, and the ratios for the Armies of the Three Presidencies contrasted on the results of the five years 1871-75.

	RATIOS PER 1,000 OF STRENGTH.									
	Army of India, 1871-76.						Average of the five Years 1871-75.			
	1871.	1872.	1873.	1874.	1875.	1876.	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
I.—Average Daily Sick-rate of each Month.										
January	51·6	51·7	52·0	50·5	56·0	50·3	52·4	50·8	58·6	51·0
February	53·0	49·8	47·8	50·8	54·7	51·3	51·2	50·5	57·2	47·1
March	53·5	47·5	48·9	47·3	49·5	49·0	49·3	49·3	51·2	47·5
April	53·6	49·6	51·7	51·6	52·8	50·2	51·9	52·6	52·7	48·5
May	58·0	54·4	53·3	53·8	55·7	54·1	55·0	57·2	54·5	48·1
June	62·3	56·4	55·7	56·5	57·7	57·0	57·7	59·9	57·6	50·3
July	64·5	56·2	58·8	61·9	61·1	58·3	60·5	62·0	60·3	55·3
August	66·3	61·6	61·9	67·3	59·6	59·6	63·3	65·6	62·1	56·7
September	65·0	67·7	64·4	66·4	61·5	65·5	65·0	67·3	64·4	57·9
October	61·7	67·0	61·7	65·8	62·2	66·0	63·7	64·6	63·7	60·3
November	55·0	58·9	55·5	61·2	57·4	61·7	57·6	57·8	58·8	55·8
December	50·5	53·5	51·5	56·6	53·1	55·8	53·1	53·0	56·7	48·6
Annual Average Sick-rate	57·9	56·2	55·3	57·5	56·8	56·6	56·7	57·5	58·1	52·3
II.—Admission-rate of each Month.										
January	121·1	103·6	95·5	88·6	90·7	86·0	99·7	99·5	99·1	100·8
February	97·2	82·0	83·0	83·3	83·0	104·9	85·6	84·9	90·5	83·1
March	102·9	90·3	93·7	108·4	106·7	84·9	100·4	98·8	98·2	108·3
April	110·1	125·7	128·6	97·1	105·6	92·9	113·5	117·9	102·0	110·3
May	148·3	112·5	103·0	103·1	102·4	124·4	113·6	118·8	101·2	108·9
June	124·1	110·9	108·3	108·1	131·3	106·4	116·5	120·0	103·7	117·7
July	129·3	141·0	134·2	141·5	111·7	109·3	131·6	134·2	116·4	139·0
August	159·7	135·5	115·2	124·0	135·4	141·6	133·8	141·1	109·3	134·5
September	116·7	154·9	148·8	133·9	117·0	135·7	138·4	149·3	106·8	134·6
October	141·6	192·8	113·0	122·0	121·1	164·9	138·1	145·2	105·3	147·8
November	102·6	128·9	102·1	112·8	136·6	113·8	116·6	122·7	88·8	125·2
December	95·6	119·6	102·6	114·6	96·4	96·8	105·9	107·4	95·1	112·6
Annual Admission-rate	1449·6	1497·0	1328·1	1357·7	1337·8	1361·5	1393·7	1439·8	1216·2	1423·8
III.—Composition of the Annual Admission-rate.										
Cholera	2·1	10·7	1·3	·2	4·9	3·5	3·9	4·8	2·0	2·5
Intermittent fever	372·7	313·8	320·4	298·2	295·8	335·0	319·8	355·7	100·3	429·8
Remittent and continued fevers	156·3	158·5	135·7	163·5	149·8	145·5	152·7	174·8	111·4	120·6
Enteric fever	3·6	3·8	3·6	4·1	2·8	4·6	3·6	3·7	4·1	2·7
Apoplexy	2·2	4·5	2·9	2·4	4·1	4·3	3·3	3·2	2·6	4·0
Delirium tremens	5·1	4·2	2·8	3·1	3·4	3·3	3·7	3·0	4·7	5·0
Dysentery	39·5	44·7	40·9	36·6	35·8	33·9	32·5	30·4	80·3	27·5
Diarrhœa	62·8	74·9	53·9	49·2	62·6	50·5	60·7	61·1	63·0	56·6
Hepatitis	58·1	52·8	56·8	53·0	46·5	49·1	53·4	50·3	72·3	44·0
Spleen disease	6·6	5·1	6·6	5·9	7·3	5·8	6·3	7·6	2·3	6·2
Respiratory diseases	76·1	68·5	76·9	82·6	71·1	72·4	75·0	83·9	58·3	62·4
Phthisis pulmonalis	9·7	9·9	9·2	8·3	8·9	8·1	9·2	8·9	11·1	8·2
Rheumatism	63·2	58·8	56·3	62·6	51·7	57·0	58·5	63·5	48·7	51·9
Venereal diseases	196·8	179·0	166·7	192·7	205·1	189·9	188·0	195·8	178·7	171·0
Eye diseases	23·3	22·3	21·0	20·6	29·4	17·4	21·5	22·3	17·1	23·4
Abscess and ulcer	94·5	91·0	90·4	92·9	88·3	83·1	91·4	82·5	110·9	101·5
Injuries	95·0	87·8	82·0	94·5	96·8	97·5	92·6	89·3	100·6	95·5
All other causes	182·0	306·7*	193·7	187·3	182·6	200·6*	210·6	199·0	247·8	211·0
Annual Admission-rate	1449·6	1497·0	1328·1	1357·7	1337·8	1361·5	1393·7	1439·8	1216·2	1423·8
IV.—Composition of the Annual Death-rate.										
Cholera	1·09	7·25	·80	·18	3·32	2·33	2·54	3·23	1·01	1·75
Remittent and continued fevers	1·74	1·38	1·11	·86	1·04	·51	1·22	1·53	·55	·87
Enteric fever	1·62	1·87	1·34	1·70	1·44	1·82	1·59	1·69	1·26	1·62
Apoplexy	·83	1·93	1·29	·95	1·73	1·63	1·35	1·33	1·08	1·70
Delirium tremens	·39	·19	·09	·14	·14	·10	·18	·13	·27	·28
Dysentery	1·46	2·02	1·41	1·26	·98	1·21	1·43	1·24	2·45	·98
Hepatitis	2·73	2·45	2·33	2·16	1·85	1·68	2·39	2·05	3·47	1·91
Respiratory diseases	·99	·95	·85	·52	·77	·66	·82	1·06	·39	·53
Heart disease	1·63	1·28	1·53	1·25	1·03	1·05	1·34	1·27	1·84	1·07
Phthisis pulmonalis	1·53	1·24	1·16	1·03	1·25	1·07	1·24	1·25	1·28	1·17
All other diseases	1·71	2·02	1·69	1·87	2·21	1·58	1·90	2·04	1·52	1·85
Violent deaths	1·19	1·07	1·20	1·27	1·25	1·09	1·20	1·13	1·51	1·07
Suicidal deaths	·62	·56	·50	·39	·48	·32	·51	·55	·48	·40
Annual Death-rate	17·53	24·21	15·30	13·58	17·48	15·32	17·62	18·50	17·02	15·20

* Dengue in 1872 gave an admission-rate of 127 per 1,000, and added 12 per 1,000 to the admission-rate of 1876.

CHAPTER II.

THE STATISTICS OF THE ARMY AS INFLUENCED BY AGE AND LENGTH OF SERVICE IN INDIA.

The Strength of the Army in relation to Age and Length of Service in India—Army of 1871-75.

The figures which follow show that in the period under review one-fifth only of the men composing the Army of India serve in the country over seven years; four-fifths are removed in the seven years, and the history is consistent throughout.

One half of the Army is composed of men who have spent four seasons or less in India.

These are the proportions taken on the average of the five years 1871-75; one hundred soldiers of the Army of India stand thus in relation to length of residence:—

1—4 years.	5—7 years.	Above 7 years.	
55	24	21	= 100

Out of an average strength of 58,000, 12,200 men remained after seven years' service; after four years' residence only 26,250, or 45 per cent., continued to serve; and 55 per cent. of the Army, 31,650 men, were new soldiers, recently landed and spending their first seasons in India.

In accordance with this statement, it follows that the Army of India is a young army, taken as a body.

Only 2 per cent. of the whole strength exceeds 40 years of age, and only 14 per cent. 35: 86 per cent. of the total are men below 35; and 65 per cent. of the Army are men under 30. The restrictions placed of late years on sending immature soldiers to India have resulted in this, that the returns of the Army for 1875 show only 1,264 lads under 20 and those of 1876, 1,185.

The natural sub-division of the Army in relation to age would appear to be as under; and these were the proportions out of each hundred present at the different ages:

Young soldiers. Below 24.	Mature soldiers. 25 to 34.	Old soldiers. 35 and upwards.	
38	48	14	‖ 100

The details year by year, and for the Armies of the Three Presidencies, are here given. The Age Statements show the full strength of the Army; but the Return for Length of Residence is deficient for several regiments, and so far incomplete. The deficiencies, however, do not seriously interfere with the general results:—

Strength of the Army at different periods of Indian Service.

ARMY OF INDIA, 1871-75.

Year.	Total Strength.	Residence in India. 1—4 years.	5—7 years.	Above 7 years.
1871	56,662	32,558	12,133	11,971
1872	58,063	33,042	13,403	11,618
1873	57,291	32,080	13,534	11,677
1874	58,594	31,658	15,105	11,831
1875	58,901	28,905	15,978	14,018
	289,511	158,243	70,153	61,115
1871-75	57,902	31,649	14,031	12,222

ARMY OF BENGAL, 1871-75.

1871	34,713	19,287	8,076	7,350
1872	35,577	18,423	10,200	6,954
1873	35,939	18,006	10,091	7,842
1874	36,318	18,400	11,115	6,803
1875	37,190	18,107	9,964	9,119
	179,737	92,223	49,446	38,068
1871-75	35,947	18,445	9,889	7,613

ARMY OF MADRAS, 1871-75.

1871	11,141	5,885	2,295	2,961
1872	11,445	6,828	1,433	3,184
1873	10,642	7,332	1,311	1,999
1874	11,353	6,589	1,997	2,767
1875	11,169	5,251	3,013	2,905
	55,750	31,885	10,049	13,816
1871-75	11,150	6,377	2,010	2,763

ARMY OF BOMBAY, 1871-75.

Year.	Total Strength.	1—4 years.	5—7 years.	Above 7 years.
1871	10,808	7,386	1,762	1,660
1872	11,041	7,791	1,770	1,480
1873	10,710	6,742	2,132	1,836
1874	10,923	6,669	1,993	2,261
1875	10,542	5,547	3,001	1,994
	54,024	34,135	10,658	9,231
1871-75	10,805	6,827	2,132	1,846

Proportion present at the different Periods of Residence.

ARMY OF INDIA, 1871-75.

	1871.	1872.	1873.	1874.	1875.	Average for the five years.
Resident from 1 to 4 years	58	57	56	54	49	55
„ „ 5 to 7 years	21 } 42	23 } 43	24 } 44	26 } 46	27 } 51	24 } 45
„ above 7 years	21 }	20 }	20 }	20 }	24 }	21 }
TOTAL =	100	100	100	100	100	100

ARMY OF BENGAL, 1871-75.

	1871.	1872.	1873.	1874.	1875.	For the period.
Resident from 1 to 4 years	56	52	50	51	49	51
„ „ 5 to 7 years	23 } 44	29 } 48	28 } 50	30 } 49	27 } 51	28 } 49
„ above 7 years	21 }	19 }	22 }	19 }	24 }	21 }
TOTAL =	100	100	100	100	100	100

ARMY OF MADRAS, 1871-75.

	1871.	1872.	1873.	1874.	1875.	For the period.
Resident from 1 to 4 years	53	59	69	58	47	57
„ „ 5 to 7 years	21 } 47	13 } 41	12 } 31	18 } 42	27 } 53	18 } 43
„ above 7 years	26 }	28 }	19 }	24 }	26 }	25 }
TOTAL =	100	100	100	100	100	100

ARMY OF BOMBAY, 1871-75.

	1871.	1872.	1873.	1874.	1875.	For the period.
Resident from 1 to 4 years	68	71	63	61	52	63
„ „ 5 to 7 years	17 } 32	16 } 29	20 } 37	18 } 39	29 } 48	20 } 37
„ above 7 years	15 }	13 }	17 }	21 }	19 }	17 }
TOTAL =	100	100	100	100	100	100

Strength of the Army of India at the different Ages in each year, and the proportion present at the different Ages on the average of the period 1871-75.

ARMY OF INDIA, 1871-75.

	All ages.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
1871	56,964	5,591	17,091	15,576	12,922	4,938	846
1872	58,777	4,042	18,976	15,454	13,250	5,934	1,121
1873	59,923	2,979	20,230	16,043	12,927	6,522	1,222
1874	60,347	1,893	20,773	16,140	11,971	7,843	1,727
1875	59,896	1,264	20,022	17,487	10,692	8,492	1,939
Aggregate 1871-75	295,907	15,769	97,092	80,700	61,762	33,729	6,855
Average	59,181	3,154	19,418	16,140	12,352	6,746	1,371
Proportion at the different ages. TOTAL 100		5·33	32·81	27·27	20·87	11·40	2·32
		38		27		35	
		100					

ARMY OF BENGAL, 1871-75.

	All ages.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
1871 . .	35,300	3,010	10,582	10,070	8,205	3,000	433
1872 . .	36,349	2,220	11,453	9,829	8,500	3,696	651
1873 . .	37,681	1,675	12,005	10,640	8,426	4,135	800
1874 . .	37,517	793	12,719	10,336	7,723	4,894	1,052
1875 . .	37,383	755	12.443	11,237	6,570	5,109	1,269
Aggregate 1871-75 .	184,230	8,453	59,202	52,112	39,424	20,834	4,205
Average . .	36,846	1,691	11,840	10,422	7,885	4,167	841
Proportion at the different ages ... }	TOTAL 100	4·59	32·13	28·29	21·40	11·31	2·28
			37	28		35	
				100			

ARMY OF MADRAS, 1871-75.

1871 . .	10,703	1,121	2,787	2,884	2,719	996	196
1872 . .	11,486	820	3,440	3,000	2,800	1,180	246
1873 . .	11,521	665	3,996	2,617	2,701	1,304	238
1874 . .	11,907	365	4,038	2,798	2,453	1,791	462
1875 . .	11,707	273	3,864	3,041	2,221	1,872	436
Aggregate 1871-75 .	57,324	3,244	18,125	14,340	12,894	7,143	1,578
Average . .	11,465	649	3,625	2,868	2,579	1,429	315
Proportion at the different ages ... }	TOTAL 100	5·66	31·62	25·01	22·50	12·46	2·75
			37	25		38	
				100			

ARMY OF BOMBAY, 1871-75.

1871 . .	10,961	1,460	3,722	2,622	1,998	942	217
1872 . .	10,942	1,002	4,083	2,625	1,950	1,058	224
1873 . .	10,721	639	4,229	2,786	1,800	1,083	184
1874 . .	10,923	735	4,016	3,006	1,795	1,158	213
1875 . .	10,806	236	3,715	3,209	1,901	1,511	234
Aggregate 1871-75 .	54,353	4,072	19,765	14,248	9,444	5,752	1,072
Average . .	10,870	814	3,953	2,850	1,889	1,150	214
Proportion at the different ages ... }	TOTAL 100	7·49	36·36	26·22	17·38	10·58	1·97
			44	26		30	
				100			

Composition by Age and Length of Service of the Army of 1876.

The Army of 1876 had 47 per cent. of its strength resident from one to four years; 75 per cent. had been seven years or less in the country; and 9·6 of the whole were men whose residence exceeded ten years.

In relation to age, 3 per cent. of the Army exceeded 40; and 17 per cent. were from 35 upwards. Reckoning the soldier old at 30, 100 men of the strength were made up thus:—

	Young soldiers. Below 24.	Mature soldiers. 25 to 29.	Old soldiers. 30 and upwards.
TOTAL = 100	33	33	34

Distribution by Length of Indian Service of the Army of India of 1876.

YEARS OF RESIDENCE IN INDIA.

	Total Strength.	1 to 4 years.	5 to 7 years.	Above 7 years.
Army of Bengal . .	36,420	17,492	9,413	9,515
Army of Madras . .	11,261	4,898	3,871	2,492
Army of Bombay . .	10,284	4,846	2,989	2,449
Army of India . .	57,965	27,236	16,273	14,456
TOTAL . .	100	47	28	25
				53

Distribution by Age of the Army of India of 1876.

	Total Strength.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
Army of Bengal .	36,741	673	11,571	12,308	6,015	4,943	1,231
Army of Madras .	11,135	384	3,418	3,205	1,970	1,719	439
Army of Bombay .	10,286	128	2,939	3,538	1,871	1,446	364
Army of India .	58,162	1,185	17,928	19,051	9,856	8,108	2,034
TOTAL .	100	2	31	33	17	14	3
			33			34	

Deaths of the Army of India in relation to Age and Length of Service—four years, 1873-76.

It is only in the last four years of the period under review, that the opportunity has been afforded for tabulating the deaths of the Army in relation to the length of residence in the country of the men who die.

There are nearly 100 deficiencies in the rolls of 1873-76, chiefly in those of 1873-74; and deaths from cholera, small-pox and accidents are naturally excluded in a comparative statement intended to show the relative liability to death of men at different periods of residence. In the table below, 2,792 deaths are accounted for, and the results are as under:—

Men resident from 5 to 7 years give the lowest ratio—8·83 per 1,000, which is less by 3·67 per 1,000 than that of the younger class, for which the ratio is 12·50; and the old soldier, resident above 7 years, has died at the still higher rate of 14·54 per 1,000.

Of the difference of 3·67 between the young and the middle class, 2·64 is made up by the mortality attending the fevers of the young and unacclimatised: in the acclimatised class the ratio of mortality for fever of all kinds was 1·10, while among the men resident from 1 to 4 years 3·74 per 1,000 died from fevers, enteric fever contributing 2·77 of this total. Heat apoplexy, phthisis, dysentery and even hepatitis show a higher ratio in the young than in the older soldier; and, indeed, except in the case of heart disease, the ratios of the acclimatised class appear consistently in a favourable aspect. In the class of old men, deaths from fever are comparatively rare, the liability to die from enteric fever, for example, being 3·87 as contrasted with 82·44 in the young, and 13·69 in the class resident from 5 to 7 years, reckoning liability at 100. But in every other respect the tendency is to degeneration, as is shown by the liability to death doubling, or nearly doubling, in the last column of the table, in the instance of all diseases which are intensified by the climate of India.

Composition of the Death-rate, and the relative Liability to Death from different causes in relation to Length of Indian service.

How 100 deaths are composed at different periods of Indian service, as deduced from the medical history of the last four years, is shown below:—

ARMY OF INDIA, 1873-76.

In first four years.		Fifth, sixth, and seventh years.		Above the seventh year.	
Enteric fever . .	22·2	Hepatitis . .	18·9	Heart disease . .	16·2
Hepatitis . .	14·0	Apoplexy . .	11·9	Hepatitis . . .	16·0
Apoplexy . .	11·8	Heart disease .	11·2	Dysentery . .	13·3
Phthisis . . .	9·0	Dysentery . .	10·1	Apoplexy . .	10·3
Dysentery . .	9·0	Phthisis . .	8·1	Phthisis . . .	8·2
Other fevers . .	7·8	Fevers . .	7·3	Respiratory diseases .	6·8
Heart disease . .	5·8	Suicide . .	6·1	Fevers . . .	6·0
Respiratory diseases	4·4	Respiratory diseases.	5·9	Suicide . . .	5·2
Suicidal deaths .	2·1	Enteric fever .	5·2	Enteric fever . .	·9
All other diseases (excluding cholera, small-pox, and accidents).	13·9	All other diseases	15·3	All other diseases .	17·1
TOTAL .	100·0		100·0		100·0

The details, and the ratios of mortality, are placed on the following page. How men young or new to India, die, will be further illustrated in the succeeding chapter, which gives the history of men in the early years of their Indian service.

Aggregate Strength of the Army of India at different Periods of Residence, 1873-76.

Army as a body.	1 to 4 years in India.	5 to 7 years in India.	Above 7 years in India.
232,751	119,879	60,890	51,982

*Deaths of the Four Years, and Death-rates at the different Periods of Residence.**

(Not including Deaths from Cholera, Smallpox and Accidents.)

Causes of Deaths.	Deaths from 1873 to 1876.				Death-rates per 1,000 of the above strength.			Ratio of liability in Percentages.			
	1 to 4 years.	5 to 7 years.	8 to 10 years.	above 10 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total =100.
Enteric fever	332	28	5	2	2·77	·46	·13	82·44	13·69	3·87	100
Remittent and continued fevers.†	117	39	27	19	·97	·64	·88	38·96	25·70	35·34	100
Heat apoplexy	178	64	39	39	1·48	1·05	1·50	36·72	26·06	37·22	100
Dysentery	134	54	44	56	1·12	·89	1·93	28·43	22·59	48·98	100
Hepatitis	210	102	57	64	1·75	1·67	2·33	30·43	29·04	40·53	100
Respiratory diseases	66	32	25	27	·55	·52	1·00	26·57	25·12	48·31	100
Heart disease	87	60	50	72	·73	·99	2·35	17·94	24·32	57·74	100
Phthisis pulmonalis	135	44	30	32	1·13	·72	1·19	37·17	23·69	39·14	100
Suicide	31	33	14	25	·26	·54	·75	16·77	34·84	48·39	100
All other causes	208	82	56	73	1·74	1·35	2·48	31·24	24·24	44·52	100
All causes	1,498	538	347	409	12·50	8·83	14·54	34·85	24·62	40·53	100

* In the death-rolls of the earlier years of this period, there are above 100 cases in which the periods of residence is omitted. Both weekly and annual returns now contain a column for length of residence, which is invariably filled in.

† So returned.

I place alone, for comparison, and as a specimen of a parallel statement to appear annually in future, the results of 1876, which are beautifully consistent with the standard :—

Strength of the Army of India of 1876 at different Periods of Residence.

Army as a body.	1—4 years.	5—7 years.	8—10 years.	11 years and upwards.
57,965	27,236	16,273	8,895	5,561

Deaths of the Army of India of 1876 in relation to Length of Residence.

(Excluding Accidental Deaths, Cholera and Smallpox.)

Causes of Deaths.	Residence in India of men who died.				Died per 1,000 of Strength.			Liability to die at the different periods of Residence.			
	1—4 years.	5—7 years.	8—10 years.	11 years and upwards.	1—4 years.	5—7 years.	Above 7 years.	1—4 years.	5—7 years.	Above 7 years.	Total=100.
Enteric fever	94	9	...	1	3·45	·55	·07	84·77	13·51	1·72	100
Other fevers	19	4	4	5	·70	·25	·62	44·59	15·92	39·49	100
Heat apoplexy	58	17	12	7	2·13	1·04	1·32	47·44	23·16	29·40	100
Dysentery	33	14	9	12	1·21	·86	1·45	34·38	24·43	41·19	100
Hepatitis	41	22	15	18	1·51	1·35	2·28	29·38	26·26	44·36	100
Respiratory diseases	16	9	5	6	·59	·55	·76	31·05	28·95	40·00	100
Heart diseases	24	13	9	14	·88	·80	1·59	26·91	24·47	48·62	100
Phthisis pulmonalis	31	11	7	11	1·14	68	1·25	37·13	22·15	40·72	100
Suicide	9	12	4	5	·33	·74	·62	19·53	43·78	36·69	100
All other causes	47	20	12	21	1·72	1·23	2·28	32·89	23·52	43·59	100
All causes	372	131	77	100	13·66	8·05	12·24	40·24	23·71	36·05	100

Composition of 100 deaths at the earliest and latest periods of Indian service.

Of the total of 2,792 deaths above represented, exactly 1,000 occurred in the first and second years of Indian service; and among men whose residence exceeded ten years, there were 409 deaths. It is interesting to compare the composition of the deaths of these two classes:—

Composition of 100 Deaths of men in the first and second years in India, and of men whose residence exceeded ten years.

1st & 2nd years in India.		Above ten years.	
Enteric fever	26·7	Heart disease	17·6
Hepatitis	12·3	Hepatitis	15·7
Heat Apoplexy	12·2	Dysentery	13·7
Phthisis	9·1	Apoplexy	9·5
Dysentery	8·5	Phthisis	7·8
Other Fevers	8·0	Respiratory diseases	6·6
Heart disease	4·7	Suicide	6·1
Respiratory diseases	4·4	Fevers	4·6
Suicide	1·8	Enteric Fever	·5
All other diseases	12·3	All other diseases	17·9
	100·0		100·0

Enteric fever heads the first column and takes the last place in the second; and the position is reversed in the case of heart disease, which caused 18 per cent. of the deaths of the old men.

Invaliding in relation to length of Indian service and to age, and to both combined.

Forty-eight per cent. of the Invaliding from the Army of India occurs in men who have been under five years in India; and in the past six years, the percentage has varied only between 46 and 51,—a very limited range. Of 14,177 men invalided from 1871 to 1876, 6,790 were of four years' Indian service or less; 24 per cent., or 3,403 out of the whole, had served from 5 to 7 years; and the remainder 3,984, or 28 per cent., were men who had passed more than seven years in the country.

I have placed below the results for each year of the period 1871 to 1875 in the Three Presidencies, to make the facts conspicuous; for it is a matter of serious moment that so large a proportion of men break down in the first years of their residence, necessitating a large annual supply of recruits to fill the vacancies, and who, in turn, succumb to the same influences. Where the ratio of invaliding per cent. of the total in the early years is exorbitant—for example, in the Bombay Presidency in 1871 and 1872,—it is necessary to refer for the explanation to the previous column, "Invalided per 1,000 of Strength," which shows that the excess was due not to the large number invalided, but to a large proportion of men of short service in India happening in these years to be on the strength of the Army of Bombay.

These are the general results for the Armies of the Three Presidencies:

Invalided per cent. of the total invaliding at the different periods of Indian Service, 1871—75.

	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
1 to 4 years	48·1	45·4	48·5	57·3
5 „ 7 „	23·2	24·9	18·7	23·1
Above 7 „	28·7	29·7	32·8	19·6
TOTAL	100·0	100·0	100·0	100·0

Of 5,724 soldiers who broke down in the five years 1871 to 1875 in the first four years of residence, 3,071 were men of one and two years' service, and 2,653 were invalided in the third and fourth years; 2,965 were young men of 25 and under, and 2,759 were over this age.

The details on the results of the period, are given in this statement, in which the age and length of service of the men invalided is shown in combination. It shows that of all invalided in the first four years, 73 per cent. were under 30, and 84 per cent. below 35; of all invalided in the fifth, sixth or seventh years, 70 per cent. were under 35; and even of the oldest class, 41 per cent. did not exceed the age of 35, which, as we have seen, is the limit beyond which only 14 per cent. of the whole Army continues to serve in India.

Invaliding of the Army of India 1871-75, in relation to Age and Length of Service in India shown in combination.

Ages of men invalided.	Length of Indian service.			Invalided per cent. of total.					
	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.		5 to 7 years.		Above 7 years.	
24 and under	2,479	305	5	43·31		11·02		·15	
25 to 29	1,688	1,036	373	29·49	84·26	37·41	69·74	10·91	41·49
30 „ 34	656	590	1,040	11·46		21·31		30·43	
35 „ 39	631	591	1,322	15·74		30·26		58·51	
40 & upwards	270	247	678						
TOTAL	5,724	2,769	3,418	100·00		100·00		100·00	
Per cent. of total	48·06	23·25	28·69						
	71·31								

The results for 1876 are closely assimilated to this standard:

Army of India.—Invaliding of 1876.

Ages.	Number Invalided.	Length of Indian service. 1 to 4 years.	5 to 7 years.	8 to 10 years.	11 and upwards.	Invalided per cent. of total. 1 to 4 years.	5 to 7 years.	Above 7 years.
Under 25	448	401	43	3	1	37·69	6·74	·68
25 to 29	694	322	289	82	1	30·26	45·29	14·44
30 „ 34	326	92	102	87	45	8·65	16·00	22·96
35 „ 39	519	161	139	87	132	23·40	31·97	61·92
40 & upwards	290	88	65	40	97			
	2,277	1,064	638	299	276	100·00	100·00	100·00
Total=100		46·73	28·02	25·25				
		74·75						

76·60 | 68·03 | 38·08

The ratio in which the men of the Army of India are invalided does not increase by length of service as much as might be expected. It seems as if the survivors were the better lives, and that the phenomenon is in accordance with the fact that so many bad lives are eliminated from the Army in the earlier years of service.

These were the ratios per 1,000 of strength for the Army of India of 1876:

1 to 4 years.	5 to 7 years.	Above 7 years.
39·07	39·20	39·78

But this exaggerates the fact; it is not the case that the invaliding ratio is as high at one period of service as at another.

The standard of 1871-75 shows this clearly, and the truth of the average is shown by the beautiful consistency of the ratios year by year, as exhibited in the table on the following page.

1 to 4 years.	5 to 7 years.	Above 7 years.
36·19	39·41	55·85

The invaliding ratio seems to keep very constant up to 35 and up to 10 years of service. These, for example, are the figures for the Army of Bengal of 1876:

1 to 4 years.	5 to 7 years.	8 to 10 years.	Above 10 years.
34·93	36·65	36·68	44·07

Under 25.	25 to 29 years.	30 to 34 years.	35 to 39 years.	40 and upwards.
22·70	30·63	32·58	63·12	135·66

The details in which the ratio at the different periods of service differs may be studied in the series of tables which follows. In these the chief causes of invaliding in the different years of service in the Army of India and in the Armies of Bengal, Madras, and Bombay are set forth, and the ratio of loss and liability to succumb to the different diseases delineated, as shaped out by the history of the Army in these six years.

Here I need only call attention to the contents of these tables. What they teach cannot be satisfactorily considered apart from the question of the influence of age on the death-rate and invaliding-rate, which is taken up in the next paragraph.

Contents of the series of eight tables illustrating the relation of the Invaliding of the Army of India to Length of Residence.

The first table of the series shows the number invalided per 1,000 of strength in each year in the Three Armies, and in the Army of India, and shows the proportion invalided among young soldiers, mature soldiers, and old soldiers respectively.

The second table shows the ages of 11,911 men, the total invalided from 1871 to 1875, and the length of service in India of each man invalided, dividing Indian service into seven periods,—namely, the first, second, third, and fourth years; the fifth, sixth and seventh years taken together; the eighth, ninth, and tenth years as a separate period, and all residence above ten years as the last sub-division.

The third table shows the diseases to which invaliding was attributable, distributed in four periods of Indian service—namely, 1 to 4 years, 5 to 7 years, 8 to 10 years, and above 10 years.

The fourth table takes up the same in detail, and gives the loss per 1,000 from the chief causes of invaliding at the different periods of residence in India, and the ratio of liability to invaliding for special diseases in relation to length of exposure to the influences of the Indian climate.

The fifth, sixth, and seventh tables show in what respects the same details have differed in the Armies of the Three Presidencies.

The eighth table contains the same results as shown in the history of 1876; and it is the first of a series which it is proposed to continue year by year for comparison with the standard of 1871—75.

Table showing in each Year and for the Armies of the Three Presidencies, the number of men Invalided at different periods of Indian Service, the Ratio per 1,000 of Strength, and the percentage of the Total Invaliding as distributed in relation to Length of Residence in India.

Armies.	Year.	Number invalided after years of Indian service.				Invalided per 1,000 of Strength.			Invalided per cent. of total Invaliding.			
		1 to 4 years.	5 to 7 years.	Above 7 years.	Total.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Army of Bengal	1871	750	313	490	1,553	38·89	38·76	66·67	48·29	20·16	31·55	100
	1872	590	377	489	1,456	32·02	36·96	70·32	40·52	25·90	33·58	100
	1873	606	347	435	1,388	33·06	34·39	55·47	43·66	25·00	31·34	100
	1874	674	390	363	1,427	36·63	35·09	53·36	47·23	27·33	25·44	100
	1875	689	383	384	1,456	38·05	38·44	42·11	47·32	26·31	26·37	100
Average of 5 years	.....	662	362	432	1,456	35·88	36·71	56·82	45·47	24·86	29·67	100
Army of Madras	1871	216	100	169	485	36·70	43·57	57·08	44·54	20·62	34·84	100
	1872	188	67	164	419	27·53	46·75	51.51	44·87	15·99	39·14	100
	1873	326	90	185	601	44·46	68·65	92·55	54·24	14·98	30·78	100
	1874	304	107	194	605	46·14	53·58	70·11	50·25	17·69	32·06	100
	1875	233	128	143	504	44·37	42·48	49·23	46·23	25·40	28·37	100
Average of 5 years	.....	253	99	171	523	39·74	48·46	62·03	48·38	18·93	32·69	100
Army of Bombay	1871	238	41	49	328	32·22	23·27	29·52	72·56	12·50	14·94	100
	1872	294	56	88	438	37·74	31·64	59·46	67·12	12·79	20·09	100
	1873	214	106	128	448	31·74	49·72	69·72	47·77	23·66	28·57	100
	1874	167	130	79	376	25·04	65·23	34·94	44·41	34·58	21·01	100
	1875	237	130	49	416	42·73	43·32	24·57	56·97	31·25	11·78	100
Average of 5 years	.....	230	93	78	401	33·69	43·44	42·58	57·36	23·19	19·45	100
Army of India	1871	1,204	454	708	2,366	36·98	37·42	59·14	50·89	19·19	29·92	100
	1872	1,072	500	741	2,313	32·45	37·31	63·78	46·35	21·61	32·04	100
	1873	1,146	543	748	2,437	35·72	40·12	64·06	47·03	22·28	30·69	100
	1874	1,145	627	636	2,408	36·17	41·51	53·76	47·55	26·04	26·41	100
	1875	1,159	641	576	2,376	40·10	40·12	41·09	48·78	26·97	24·25	100
Average of 5 years	.....	1,145	554	681	2,380	36·19	39·41	55·85	48·11	23·28	28·61	100
Army of India	1876	1,064	638	575	2,277	39·07	39·20	39·78	46·73	28·02	25·25	100

Invaliding of the Army of India 1871—75, showing the Ages of the Men Invalided from All Causes, and the number of Years of Indian Service completed.

Ages.	1 to 4 Years..				1st to 4th year.	5th to 7th year.	8th to 10th year.	Above 10 years.	Total at all periods.
	1st.	2nd.	3rd.	4th.					
16	2	2	...	...	4	...	...	...	4
17	3	2	2	...	7	...	...	...	7
18	4	7	4	2	17	...	...	...	17
19	41	8	7	2	58	2	...	...	60
20	109	56	14	2	181	9	...	...	190
21	226	135	51	5	417	4	...	...	421
22	230	235	134	26	625	29	...	...	654
23	164	215	163	50	592	86	1	...	679
24	136	160	179	103	578	175	4	...	757
25	119	132	129	106	486	193	10	...	689
26	92	102	100	118	412	248	41	1	702
27	58	73	101	101	333	221	72	3	629
28	32	62	72	100	266	204	99	2	571
29	25	38	53	75	191	170	132	13	506
30	25	25	38	61	149	148	127	38	462
31	18	28	22	60	128	110	92	74	404
32	24	33	33	34	124	108	113	108	453
33	28	31	21	41	121	108	82	144	455
34	31	28	33	42	134	116	111	151	512
35	29	23	35	28	115	114	76	162	467
36	23	57	35	30	145	114	106	177	542
37	16	30	38	52	136	127	89	192	544
38	18	30	38	37	123	145	80	202	550
39	9	16	37	50	112	91	71	167	441
40	11	21	23	37	92	75	48	121	336
41	5	16	10	27	58	50	33	88	229
42	3	12	11	19	45	48	31	53	177
43	...	5	9	14	28	22	22	68	140
44	2	3	5	8	18	20	14	44	96
45	...	...	3	9	12	11	14	38	75
46	...	1	3	2	6	9	9	19	43
47	...	1	...	1	2	4	4	17	27
48	...	...	...	3	3	3	3	13	22
49	...	1	...	1	2	3	2	11	18
50	...	...	2	...	2	1	2	6	11
51	...	...	...	...	...	...	...	3	3
52	...	...	1	...	1	...	...	6	7
53	...	...	...	...	...	1	...	4	5
54	...	...	...	1	1	...	1	3	5
55	...	...	...	...	...	...	...	1	1
Total	1,483	1,588	1,406	1,247	5,724	2,769	1,489	1,929	11,911

Invaliding of the Army of India, 1871—75, showing the Causes of Invaliding, and the Length of the Indian Service of the men who broke down from the different causes.

Causes of Invaliding.	Years of Indian Service.				Total at all periods.
	1 to 4 years.	5 to 7 years.	8 to 10 years.	Above 10 years.	
Fevers	238	111	70	65	484
Phthisis pulmonalis	610	237	114	96	1,057
Rheumatism and Neuralgia	293	181	101	188	763
Venereal affections	250	150	81	90	571
Epilepsy and Brain affections	203	69	28	30	330
Mania	56	27	10	6	99
Melancholia	41	24	5	5	75
Dementia	97	29	20	16	162
Valve-disease of heart	289	90	37	45	461
Hypertrophy of heart	131	35	17	14	197
Aneurism	36	17	14	20	87
Palpitation	412	141	40	27	620
Bronchitis and Asthma	146	105	62	74	387
Dysentery and Diarrhœa	444	184	85	78	791
Hepatitis	860	463	238	287	1,868
Spleen disease	45	28	17	20	110
Anæmia and Debility	876	553	353	634	2,416
All other causes	699	321	181	225	1,426
All causes	5,726	2,765	1,493	1,920	11,904*

* In several cases the record is deficient.

Detailed Statement showing how and in what proportion the men of the Army of India have been Invalided in relation to Length of Residence in India.

AGGREGATE STRENGTH OF THE ARMY OF INDIA AT DIFFERENT PERIODS OF RESIDENCE, 1871—75.

Army as a body (Aggregate Strength of the five years).	1 to 4 years in India.	5 to 7 years in India.	Above 7 years in India.
289,511	158,243	70,153	61,115

NUMBER INVALIDED, AND THE INVALIDING RATIOS AT THE DIFFERENT PERIODS OF RESIDENCE.

CAUSES OF INVALIDING.	NUMBER INVALIDED IN THE FIVE YEARS.			INVALIDED PER 1,000 OF STRENGTH.			RATIO OF LIABILITY IN PERCENTAGES.			
	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Fevers	238	111	135	1·50	1·58	2·21	28·36	29·87	41·77	100
Phthisis pulmonalis	610	237	210	3·85	3·38	3·44	36·08	31·68	32·24	100
Rheumatism and Neuralgia	293	181	289	1·85	2·58	4·73	20·20	28·16	51·64	100
Venereal affections	250	150	171	1·58	2·14	2·80	24·23	32·82	42·95	100
Epilepsy and Brain affections	203	69	58	1·28	·98	·95	39·88	30·53	29·59	100
Mental affections	194	80	62	1·23	1·13	1·01	36·50	33·53	29·97	100
Heart disease	456	142	147	2·88	2·03	2·40	39·40	27·77	32·83	100
Palpitation	412	141	67	2·60	2·01	1·10	45·53	35·20	19·27	100
Bronchitis and Asthma	146	105	136	·92	1·50	2·23	19·78	32·26	47·96	100
Dysentery and Diarrhœa	444	184	163	2·81	2·62	2·67	34·69	32·35	32·96	100
Hepatitis	860	463	545	5·44	6·60	8·92	25·95	31·49	42·56	100
Spleen disease	45	28	37	·29	·40	·60	22·48	31·01	46·51	100
Anæmia and Debility	876	553	987	5·54	7·88	16·15	18·73	26·65	54·62	100
All other causes	699	321	406	4·42	4·58	6·64	28·26	29·28	42·46	100
All causes	5,726	2,765	3,413	36·19	39·41	55·85	27·53	29·98	42·49	100

Detailed Statement showing how and in what proportion the men of the Army of Bengal have been Invalided in relation to Length of Residence in India.

DISTRIBUTION BY LENGTH OF INDIAN SERVICE OF THE STRENGTH OF THE ARMY OF BENGAL, 1871—75.

Total Strength.	Four years and under.	Five to seven years.	Above seven years.
179,737	92,223	49,446	38,068

INVALIDING OF 1871—75, AND THE INVALIDING RATIOS AT THE DIFFERENT PERIODS OF INDIAN SERVICE.

CAUSES OF INVALIDING.	INVALIDED AFTER YEARS OF INDIAN SERVICE.			INVALIDED PER 1,000 OF THE ABOVE STRENGTH.			RATIO OF LIABILITY IN PERCENTAGES.			
	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Fevers	98	75	112	1·06	1·52	2·94	19·20	27·54	53·26	100
Phthisis pulmonalis	394	150	132	4·27	3·03	3·47	39·65	28·13	32·22	100
Rheumatism and Neuralgia	176	128	196	1·91	2·59	5·15	19·79	26·84	53·37	100
Venereal affections	116	92	96	1·26	1·86	2·52	22·34	32·98	44·68	100
Epilepsy and Brain affections	125	44	36	1·36	·89	·94	42·63	27·90	29·47	100
Mental affections	131	55	41	1·42	1·11	1·08	39·34	30·75	29·91	100
Heart disease	324	106	89	3·51	2·15	2·34	43·87	26·88	29·25	100
Palpitation	300	104	47	3·25	2·10	1·23	49·39	31·91	18·70	100
Bronchitis and Asthma	100	78	88	1·08	1·58	2·31	21·73	31·80	46·47	100
Dysentery and Diarrhœa	182	98	52	1·98	1·98	1·36	37·22	37·22	25·56	100
Hepatitis	471	310	347	5·11	6·27	9·12	24·93	30·58	44·49	100
Spleen disease	28	21	33	·30	·43	·87	18·75	26·87	54·38	100
Anæmia and Debility	466	357	647	5·05	7·22	17·00	17·25	24·67	58·08	100
All other causes	398	197	247	4·32	3·98	6·49	29·21	26·91	43·88	100
All causes	3,369	1,815	2,163	35·88	36·71	56·82	27·73	28·37	43·90	100

Detailed Statement showing how and in what proportion the men of the Army of Madras have been Invalided in relation to Length of Residence in India.

DISTRIBUTION BY LENGTH OF INDIAN SERVICE OF THE STRENGTH OF THE ARMY OF MADRAS, 1871—75.

Total Strength.	Four years and under.	Five to seven years.	Above seven years.
55,750	31,885	10,049	13,816

INVALIDING OF 1871-75, AND THE INVALIDING RATIOS AT THE DIFFERENT PERIODS OF INDIAN SERVICE.

CAUSES OF INVALIDING.	INVALIDED AFTER YEARS OF INDIAN SERVICE.			INVALIDED PER 1,000 OF THE ABOVE STRENGTH.			RATIO OF LIABILITY IN PERCENTAGES.			
	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Fevers	23	6	8	·72	·60	·58	37·90	31·58	30·52	100
Phthisis pulmonalis	125	49	56	3·92	4·88	4·05	30·50	37·98	31·52	100
Rheumatism and Neuralgia	56	30	63	1·76	2·99	4·56	18·90	32·12	48·98	100
Venereal affections	90	31	56	2·82	3·08	4·05	28·34	30·96	40·70	100
Epilepsy and Brain affections	43	14	16	1·35	1·39	1·16	34·62	35·64	29·74	100
Mental affections	25	12	15	·78	1·19	1·09	25·49	38·89	35·62	100
Heart disease	82	22	48	2·57	2·19	3·47	31·23	26·61	42·16	100
Palpitation	75	13	12	2·35	1·29	·87	52·11	28·60	19·29	100
Bronchitis	14	14	29	·44	1·39	2·10	11·20	35·37	53·43	100
Dysentery	217	72	99	6·81	7·17	7·17	32·20	33·90	33·90	100
Hepatitis	231	86	144	7·25	8·56	10·42	27·64	32·63	39·73	100
Spleen disease	5	...	2	·16	...	·15	...	...	...	100
General debility	148	87	212	4·64	8·66	15·34	16·20	30·24	53·56	100
All other causes	133	51	97	4·17	5·07	7·02	25·65	31·18	43·17	100
All causes	1,267	487	857	39·74	48·46	62·03	26·45	32·26	41·29	100

Detailed Statement showing how and in what proportion the men of the Army of Bombay have been Invalided in relation to Length of Residence in India.

DISTRIBUTION BY LENGTH OF INDIAN SERVICE OF THE STRENGTH OF THE ARMY OF BOMBAY, 1871-75.

Total Strength.	Four years and under.	Five to seven years.	Above seven years.
54,024	34,135	10,658	9,231

INVALIDING OF 1871-75, AND THE INVALIDING RATIOS AT THE DIFFERENT PERIODS OF INDIAN SERVICE.

CAUSES OF INVALIDING.	INVALIDED AFTER YEARS OF INDIAN SERVICE.			INVALIDED PER 1,000 OF THE ABOVE STRENGTH.			RATIO OF LIABILITY IN PERCENTAGES.			
	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Fevers	117	30		3·43	2·81	1·62	43·64	35·75	20·61	100
Phthisis pulmonalis	91	38	22	2·67	3·57	2·38	30·97	41·42	27·61	100
Rheumatism and Neuralgia	61	23	30	1·79	2·16	3·25	24·86	30·00	45·14	100
Venereal affections	44	27	19	1·29	2·53	2·06	21·94	43·03	35·03	100
Epilepsy and Brain affections	35	11	6	1·02	1·03	·65	37·78	38·15	24·07	100
Mental affections	38	13	6	1·11	1·22	·65	37.25	40·94	21·81	100
Heart disease	50	14	10	1·46	1·31	1·08	37·92	34·03	28·05	100
Palpitation	37	24	8	1·08	2·25	·87	25·71	53·57	20·72	100
Bronchitis and Asthma	32	13	19	·94	1·22	2·06	22·28	28·91	48·81	100
Dysentery and Diarrhœa	45	14	12	1·32	1·31	1·30	33·59	33·33	33·08	100
Hepatitis	158	67	54	4·63	6·29	5·85	27·61	37·51	34·88	100
Spleen disease	12	7	2	·35	·66	·22	28·45	53·66	17·89	100
Anæmia and Debility	262	109	128	7·68	10·23	13·87	24·17	32·19	43·64	100
All other causes	168	73	62	4·92	6·85	6·72	26·61	37·05	36·34	100
All causes	1,150	463	393	33·69	43·44	42·58	28·14	36·29	35·57	100

Detailed Statement showing how and in what proportion the men of the Army of India of 1876 have been Invalided in relation to Length of Residence in India.

STRENGTH OF THE ARMY OF INDIA OF 1876 AT DIFFERENT PERIODS OF RESIDENCE.

Army of India as a body.	1 to 4 years.	5 to 7 years.	8 to 10 years.	11 years and upwards.
57,965	27,236	16,273	8,895	5,561

INVALIDING OF 1876, AND THE INVALIDING RATIOS AT THE DIFFERENT PERIODS OF INDIAN SERVICE.

CAUSES OF INVALIDING.	RESIDENCE IN INDIA OF MEN INVALIDED.				INVALIDED PER 1,000 OF STRENGTH.			LIABILITY AT THE DIFFERENT PERIODS OF RESIDENCE.			
	1 to 4 years.	5 to 7 years.	8 to 10 years.	11 years and upwards.	1 to 4 years.	5 to 7 years.	Above 7 years.	1 to 4 years.	5 to 7 years.	Above 7 years.	Total=100.
Fevers	57	34	11	13	2·09	2·09	1·66	35·79	35·79	28·42	100
Phthisis pulmonalis	109	45	15	17	4·00	2·77	2·21	44·54	30·85	24·61	100
Rheumatism and Neuralgia	42	32	24	26	1·54	1·97	3·46	22·10	28·26	49·64	100
Venereal affections	37	43	17	12	1·36	2·64	2·01	22·63	43·93	33·44	100
Epilepsy and Brain affections	35	15	5	4	1·29	·92	·62	45·58	32·51	21·91	100
Mental affections	42	13	8	3	1·54	·80	·76	49·68	25·81	24·51	100
Heart disease	62	30	9	7	2·28	1·84	1·11	43·60	35·18	21·22	100
Palpitation	71	34	10	3	2·61	2·09	·90	46·61	37·32	16·07	100
Bronchitis and Asthma	30	23	13	11	1·10	1·41	1·66	26·38	33·81	39·81	100
Dysentery and Diarrhœa	62	36	34	9	2·28	2·21	2·98	30·52	29·59	39·89	100
Hepatitis	151	100	61	45	5·54	6·15	7·33	29·13	32·33	38·54	100
Spleen disease	11	10	7	1	*	*	*	*	*	*	*
Anæmia and Debility	217	160	54	95	7·97	9·83	10·31	28·35	34·97	36·68	100
All other causes	138	63	29	32	5·47	4·48	4·77	37·16	30·44	32·40	100
TOTAL	1,064	638	297	278	39·07	39·20	39·78	33·10	33·20	33·70	100

* With "All other Causes."

The invaliding ratios of young, mature and old soldiers and their details compared.

I have shown that 34 is the age up to which a large proportion of the Army continues efficient for service in India. On the average of the last six years, I find no increase on the invaliding ratio in the five-year age period 30 to 34, as compared with the five years 25 to 29. The ratio is 36 per 1,000 at the former and 38 per 1,000 at the younger age; nor do the details differ in any essential particular. In the tables which follow, I have therefore made the distinction in three age periods, namely, below 25, from 25 to 34, and 35 upwards, representing approximately the young, mature and old soldiers as far as invaliding is concerned. I have reckoned in relation to length of service the soldier as young in the first four years, mature in the three years succeeding, and old after seven years residence in India. The approximate accuracy of this arrangement as regards both age and length of service, is strikingly demonstrated by comparing together the details of these two statements, which show how 100 cases of invaliding are made up at the different ages, and at three periods of residence in India.

Composition of 100 cases of Invaliding among young soldiers, mature soldiers and old soldiers.

(Army of India, 1871—75.)

A.—*In relation to Length of Indian Service.*

In first four years.		Fifth, sixth and seventh years.		Above the seventh year.	
General debility	15·3	General debility	20·0	General debility	28·9
Hepatitis	15·0	Hepatitis	16·7	Hepatitis	16·0
Phthisis	10·6	Phthisis	8·6	Rheumatism	8·5
Heart disease	8·0	Dysentery	6·7	Phthisis	6·1
Dysentery	7·8	Rheumatism	6·5	Venereal affections	5·0
Palpitation	7·2	Venereal affections	5·4	Dysentery	4·8
Rheumatism	5·1	Heart disease	5·2	Heart disease	4·3
Venereal affections	4·4	Palpitation	5·1	Bronchitis	4·0
Fevers	4·1	Fevers	4·0	Fevers	3·9
Epilepsy and Brain affections	3·5	Bronchitis	3·8	Palpitation	2·0
Mental affections	3·4	Mental affections	2·9	Mental affections	1·8
Bronchitis	2·6	Epilepsy and Brain affections	2·5	Epilepsy and Brain affections	1·7
All other causes	13·0	All other causes	12·6	All other causes	13·0
	100·0		100·0		100·0

B.—*In relation to the Age of the Men Invalided.*

Below 25.		25 to 34.		35 and upwards.	
Hepatitis	13·0	Hepatitis	17·8	General debility	33·8
General debility	12·8	General debility	14·8	Hepatitis	14·5
Phthisis	11·6	Phthisis	10·3	Rheumatism	9·6
Heart disease	9·7	Dysentery	7·0	Bronchitis	5·0
Palpitation	9·4	Venereal affections	6·2	Phthisis	4·9
Dysentery	9·3	Heart disease	6·2	Heart disease	4·0
Epilepsy and Brain affections	4·4	Rheumatism	5·8	Dysentery	4·0
Venereal affections	4·4	Palpitation	5·3	Fevers	3·7
Fevers	4·0	Fevers	4·4	Venereal affections	3·3
Rheumatism	3·4	Mental affections	3·5	Palpitation	1·7
Mental affections	3·3	Bronchitis	2·7	Epilepsy and Brain affections	1·6
Bronchitis and Asthma	2·0	Epilepsy and Brain affections	2·6	Mental affections	1·4
Spleen disease	1·1	Spleen disease	·9	Spleen disease	·8
All other causes	11·6	All other causes	12·5	All other causes	11·7
	100·0		100·0		100·0

The nearly perfect parallelism between these two tables affirms the correctness of the general results, which may be taken as typical.

Invaliding increases enormously with age. Detailed out in five-year periods, these are the relative ratios :—

Invaliding Ratios per 1,000 at the different Ages.

(AVERAGE OF THE PERIOD 1871—75.)

	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
Below 20 . .	5·71	6·86	7·09	2·21
20 to 24 . .	29·11	27·13	37·63	27·22
25 to 29 . .	37·86	35·92	41·21	41·55
30 to 34 . .	36·06	35·31	40·64	32·93
35 to 39 . .	76·11	78·10	77·70	66·93
40 and upwards .	166·30	173·84	150·82	159·51

The aspect of this statement seems to indicate that, if men do not break down, they may remain efficient up to 34, beyond which the invaliding ratio doubles. But seeing that 50 per cent. of all invaliding takes place from the body of the Army below 30, the chances are that a man will not remain an efficient soldier up to 34.

The ratio per 1,000 of loss by invaliding at the different ages has been as under :—

Army of India.	Below 25.	25 to 34.	35 and upwards.
Standard of 1871—75 . .	25·84	37·07	91·34

To this standard the loss of 1876 has approximated thus :—

Army of India, 1876 . .	23·38	35·32	79·77

Standard of 1871—75 for Invaliding in relation to Age—a series of four tables; and the same statistics of 1876, for comparison with the standard.

The standard for the Army of India, on the results of the five years 1871—75, as well as the standard for each of the Presidencies for the same period, and the statement for the Army of India of 1876, the first of a series to appear annually, follow :

Table showing the number of Men of the Army of India Invalided at the different Ages from 1871 to 1875, the Loss per 1,000, and the Comparative Liability to Invaliding from the Chief Diseases in relation to Age.

AGGREGATE OF THE STRENGTH OF THE ARMY OF INDIA AT DIFFERENT AGES FOR THE FIVE YEARS 1871—75.

Army as a body.	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
295,907*	15,769	97,092	80,700	61,762	33,729	6,855

NUMBER INVALIDED, AND THE INVALIDING RATIOS AT THE DIFFERENT AGES.

CAUSES OF INVALIDING.	NUMBER INVALIDED IN THE FIVE YEARS.						INVALIDED PER 1,000 OF STRENGTH AT THE DIFFERENT AGES.			RATIO OF LIABILITY IN PERCENTAGES.			
	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Below 25.	25 to 34.	35 and upwards.	Below 25	25 to 34.	35 and upwards.	Total=100.
Fevers	2	113	133	101	95	41	1·02	1·64	3·35	16·97	27·29	55·74	100
Phthisis pulmonalis	14	325	325	216	149	34	3·00	3·89	4·51	26·52	33·69	39·88	100
Rheumatism and Neuralgia	2	97	172	135	230	125	·88	2·15	8·75	7·47	18·25	74·28	100
Venereal affections	3	125	174	154	106	17	1·13	2·30	3·03	17·50	35·69	46·90	100
Epilepsy and Brain affections	5	124	95	43	45	14	1·14	·97	1·45	32·02	27·25	40·73	100
Mental affections	3	94	102	83	38	13	·86	1·30	1·25	25·22	38·12	36·66	100
Heart disease	7	275	210	113	98	49	2·50	2·27	3·62	29·80	27·06	43·14	100
Palpitation	4	272	219	59	51	12	2·44	1·95	1·55	41·08	32·83	26·09	100
Bronchitis and Asthma	4	54	70	74	121	66	·51	1·01	4·61	8·32	16·48	75·20	100
Dysentery and Diarrhœa	8	263	247	125	111	37	2·41	2·61	3·65	27·80	30·10	42·10	100
Hepatitis	3	377	509	433	326	145	3·37	6·61	13·26	14·50	28·44	57·06	100
Spleen disease	2	39	28	20	22	7	·29	·34	·71	21·64	25·37	52·99	100
Anæmia and Debility	18	354	397	385	807	447	3·39	5·49	30·90	8·31	13·83	77·86	100
All other causes	15	323	374	286	301	133	2·99	4·63	10·79	16·32	25·27	58·41	100
All causes	90	2,826	3,055	2,227	2,567	1,140	25·84	37·07	91·34	16·75	24·03	59·22	100

*It is impossible to procure with accuracy the sub-division of the average strength of the Army by age or length of service. It is necessary to take the strengths as existing at a certain date, and therefore all ratios based on such strength must be regarded only as approximate.

Table showing the number of Men of the Army of Bengal Invalided at the different Ages from 1871 to 1875, the Loss per 1,000, and the Comparative Liability to Invaliding from the Chief Diseases in relation to Age.

AGGREGATE OF THE STRENGTH OF THE ARMY OF BENGAL AT DIFFERENT AGES FOR THE FIVE YEARS, 1871—75.

Army as a body.	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
184,230	8,453	59,202	52,112	39,424	20,834	4,205

NUMBER INVALIDED, AND THE INVALIDING RATIOS OF THE DIFFERENT AGES.

CAUSES OF INVALIDING.	NUMBER INVALIDED IN THE FIVE YEARS.						INVALIDED PER 1,000 OF STRENGTH AT THE DIFFERENT AGES.			RATIO OF LIABILITY IN PERCENTAGES.			
	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Below 25.	25 to 34.	35 and upwards.	Below 25.	25 to 34.	35 and upwards.	Total=100.
Fevers	1	53	76	71	61	25	·80	1·61	3·43	13·70	27·57	58·73	100
Phthisis pulmonalis	10	198	215	131	103	23	3·07	3·78	5·03	25·84	31·82	42·34	100
Rheumatism and Neuralgia	2	50	115	94	154	82	·77	2·28	9·42	6·18	18·28	75·54	100
Venereal affections	.....	59	90	94	60	10	·87	2·01	2·80	15·32	35·39	49·29	100
Epilepsy and Brain affections	2	77	61	27	27	7	1·17	·96	1·36	33·52	27·51	38·97	100
Mental affections	3	62	69	54	29	7	·96	1·34	1·44	25·67	35·83	38·50	100
Heart disease	5	195	151	70	68	36	2·96	2·42	4·15	31·06	25·39	43·55	100
Palpitation	3	202	156	45	34	9	3·03	2·20	1·72	43·60	31·65	24·75	100
Bronchitis and Asthma	4	35	50	50	84	45	·58	1·09	5·15	8·51	15·98	75·51	100
Dysentery and Diarrhœa	3	98	117	56	38	20	1·49	1·89	2·32	26·14	33·16	40·70	100
Hepatitis	2	204	232	265	263	95	3·05	6·08	14·30	13·02	25·95	61·03	100
Spleen disease	2	20	20	17	17	6	·32	·40	·92	19·51	24·39	56·10	100
Anæmia and Debility	11	165	241	242	515	287	2·60	5·28	32·03	6·51	13·23	80·26	100
All other causes	10	188	219	176	174	79	2·93	4·32	10·10	16·89	24·90	58·21	100
All causes	58	1,606	1,872	1,392	1,627	731	24·60	35·06	94·17	15·93	23·09	60·98	100

Table showing the number of Men of the Army of Madras Invalided at the Different Ages from 1871 to 1875, the Loss per 1,000, and the Comparative Liability to Invaliding from the Chief Diseases in relation to Age.

AGGREGATE OF THE STRENGTH OF THE ARMY OF MADRAS AT DIFFERENT AGES FOR THE FIVE YEARS, 1871—75.

Army as a body.	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
57,324	3,244	18,125	14,340	12,894	7,143	1,578

NUMBER INVALIDED, AND THE INVALIDING RATIOS AT THE DIFFERENT AGES.

CAUSES OF INVALIDING.	NUMBER INVALIDED IN THE FIVE YEARS.						INVALIDED PER 1,000 OF STRENGTH AT THE DIFFERENT AGES.			RATIO OF LIABILITY IN PERCENTAGES.			
	Below 20.	20 to 24.	25 to 29.	30 to 34	35 to 39.	40 and upwards.	Below 25.	25 to 34.	35 and upwards.	Below 25.	25 to 34.	35 and upwards.	Total=100.
Fevers	1	9	13	6	6	1	·47	·70	·80	23.86	35·53	40.61	100
Phthisis pulmonalis	3	72	64	54	31	8	3·51	4·33	4·47	28·51	35·18	36.31	100
Rheumatism and Neuralgia	...	24	27	28	42	29	1·12	2·02	8·14	9·33	17·91	72.16	100
Venereal affections	3	49	46	40	33	5	2·43	3·16	4·36	24·42	31·76	43.82	100
Epilepsy and Brain affections	3	20	18	11	5	6	1·54	1·06	1·26	38·89	27·46	32.65	100
Mental affections	...	13	15	18	3	3	·61	1·21	·69	24·30	48·20	27·50	100
Heart disease	2	52	33	33	23	10	2·53	2·42	3·78	28·98	27·72	43·30	100
Palpitation	1	43	31	9	14	1	2·06	1·47	1·72	39·24	28·00	32·76	100
Bronchitis and Asthma	...	5	7	13	22	10	·23	·74	3·67	4·95	15·95	79·10	100
Dysentery and Diarrhœa	4	147	101	59	63	14	7·07	5·87	8·83	32·48	26·96	40·56	100
Hepatitis	...	112	121	114	82	31	5·24	8·63	12·96	19·53	32·17	48·30	100
Spleen disease	...	1	1	1	3	...	·05	·07	·34	10·87	15·22	73·91	100
Anæmia and Debility	4	60	52	73	164	95	3·00	4·59	29·70	8·05	12·31	79·64	100
All other causes	2	65	62	65	64	25	3·13	4·66	10·21	17·39	25·89	56·72	100
All causes	23	682	591	524	555	238	32·99	40·93	90·93	20·01	24·83	55·16	100

Table showing the number of Men of the Army of Bombay Invalided at the different Ages from 1871 to 1875, the Loss per 1,000, and the Comparative Liability to Invaliding from the Chief Diseases in relation to Age.

AGGREGATE OF THE STRENGTH OF THE ARMY OF BOMBAY AT DIFFERENT AGES FOR THE FIVE YEARS, 1871—75.

Army as a body.	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
54,333	4,072	19,765	14,248	9,444	5,752	1,072

NUMBER INVALIDED, AND THE INVALIDING RATIOS AT THE DIFFERENT AGES.

CAUSES OF INVALIDING.	NUMBER INVALIDED IN THE FIVE YEARS.						INVALIDED PER 1,000 OF STRENGTH AT THE DIFFERENT AGES.			RATIO OF LIABILITY IN PERCENTAGES.			
	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Below 25.	25 to 34.	35 and upwards.	Below 25.	25 to 34.	25 and upwards.	Total=100.
Fevers	...	51	44	24	28	15	2·14	2·87	6·30	18·92	25·38	55·70	100
Phthisis Pulmonalis	1	55	46	31	15	3	2·35	3·25	2·64	28·52	39·44	32·04	100
Rheumatism and Neuralgia	...	23	30	13	34	14	·97	1·81	7·03	9·89	18·45	71·66	100
Venereal affections	...	17	38	20	13	2	·71	2·45	2·20	13·25	45·71	41·04	100
Epilepsy and Brain affections	...	17	16	5	13	1	·71	·89	2·05	19·45	24·38	56·17	100
Mental affections	...	19	18	11	6	3	·80	1·22	1·32	23·95	36·53	39·52	100
Heart disease	...	28	26	10	7	3	1·17	1·52	1·47	28·13	36·54	35·33	100
Palpitation	...	27	32	5	3	2	1·13	1·56	·73	33·04	45·61	21·35	100
Bronchitis and Asthma	...	14	13	11	15	11	·59	1·01	3·81	10·91	18·67	70·42	100
Dysentery and Diarrhœa	1	18	29	10	10	3	·80	1·65	1·91	18·35	37·84	43·81	100
Hepatitis	1	61	96	54	48	19	2·60	6·33	9·82	13·87	33·76	52·37	100
Spleen disease	...	9	7	2	2	1	·38	·38	·44	31·67	31·67	36·66	100
Anæmia and Debility	3	129	104	70	128	65	5·54	7·34	28·28	13·46	17·83	68·71	100
All other causes	3	70	93	45	63	29	3·06	5·83	13·48	13·68	26·06	60·26	100
All causes	9	538	592	311	385	171	22·95	38·11	81·48	16·10	26·74	57·16	100

Table showing the number of Men of the Army of India Invalided at the different Ages in 1876, the Loss per 1,000, and the Comparative Liability to Invaliding from the Chief Diseases in relation to Age.

STRENGTH OF THE ARMY OF INDIA OF 1876 AT THE DIFFERENT AGES.

Army of India as a body.	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
58,162	1,185	17,928	19,051	9,856	8,108	2,034

NUMBER INVALIDED IN 1876, AND THE INVALIDING RATIOS AT THE DIFFERENT AGES.

CAUSES OF INVALIDING.	NUMBER INVALIDED.						INVALIDED PER 1,000 OF STRENGTH.			RATIO OF LIABILITY IN PERCENTAGES.			
	Below 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Below 25.	25 to 34.	35 and upwards.	Below 52.	25 to 34.	35 and upwards.	Total=100.
Fevers	1	33	35	12	20	14	1·78	1·63	3·35	26·33	24·11	49·56	100
Phthisis pulmonalis	4	51	68	28	27	8	2·88	3·32	3·45	29·84	34·40	35·76	100
Rheumatism and Neuralgia	...	8	31	12	34	29	·42	1·83	6·21	4·96	21·63	73·41	100
Venereal affections	...	16	49	14	24	6	·84	2·18	2·96	14·05	36·45	49·50	100
Epilepsy and Brain affections	...	17	18	11	11	2	·89	1·00	1·28	28·08	31·54	40·38	100
Mental affections	...	25	21	10	8	2	1·31	1·07	·99	38·87	31·75	29·38	100
Heart disease	1	29	32	7	29	10	1·57	1·35	3·85	23·19	19·94	56·87	100
Palpitation	...	45	48	13	11	1	2·35	2·11	1·18	41·67	37·41	20·92	100
Bronchitis and Asthma	...	6	20	8	29	14	·31	·97	4·24	5·62	17·57	76·81	100
Dysentery and Diarrhœa	...	39	51	28	14	9	2·04	2·74	2·27	28·94	38·86	32·20	100
Hepatitis	2	51	124	68	84	28	2·77	6·64	11·04	13·55	32·47	53·98	100
Spleen disease	...	5	15	3	5	1	·26	·62	·59	17·69	42·18	40·13	100
Anæmia and Debility	4	66	101	69	155	131	3·66	5·88	28·20	9·70	15·58	74·72	100
All other causes	...	44	81	34	68	35	2·30	3·98	10·16	13·99	24·21	61·80	100
All causes	12	435	694	327	519	290	23·38	35·32	79·77	16·88	25·51	57·61	100

The deaths of the Army of India in relation to Age.

In 1876 there were but 1,185 lads under 20 in the Army of India. In former years, for purposes of comparison, we reckoned lads under 20 as a class, but it is evidently inexpedient to give this small body the same position when diminished to its present minimum. Taking all under 25 as a class, and retaining the sub-divisions adopted in former reports, the ratios in which the British soldier died in relation to Age in the six years from 1871 to 1876, were as under:—

DEATH-RATE PER 1,000 OF STRENGTH, 1871—75.

	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
Under 25	11·62	12·89	9·69	9·77
25 to 29	15·02	15·81	13·67	13·47
30 and upwards	25·28	25·72	25·63	23·05

DEDUCTING THE CHOLERA RATIO.

Under 25	9·61	10·20	9·46	8·09
25 to 29	12·47	12·61	12·28	12·14
30 and upwards	22·27	21·98	24·10	20·96

DEATH-RATE OF 1876, EXCLUDING CHOLERA.

Under 25	9·21	8·82	9·47	9·46
25 to 29	11·55	11·21	14·36	10·17
30 and upwards	17·80	18·46	18·17	15·21

These results are very satisfactory The standard of 1871—75 is a consistent one, and the figures of 1876 conform to it very accurately, when we take into account that the mortality of the year was under the average.

The comparative liability to death at the different ages is also very closely allied in the experience of the three Armies:—

Comparative Liability to Death at the different Ages in the Three Presidencies compared on the Standard of 1871—75.

	Under 25.	25 to 29.	30 and upwards.
Army of India	21·67	28·12	50·21=100
,, Bengal	22·77	28·16	49·07=100
,, Madras	20·64	26·79	52·57=100
,, Bombay	19·64	29·49	50·89=100

Standard for the Army of Bengal of 1865—70 compared with that of 1871—75. Results for 1876.

Very consistent also is the whole history of death in relation to age, as we have sketched it year by year since 1865 in the Bengal Presidency:—

	Under 20.	20 to 24.	25 to 29.	30 and upwards.
Standard of 1865—70	11·09	19·92	25·37	43·62=100
Standard of 1871—75	12·15	20·84	24·43	42·58=100
Results of 1876	10·34	21·01	25·94	42·71=100

It is interesting to remark how, with a ratio falling year by year, the liability to die remains almost the same throughout:—

Army of Bengal, 1865—76.

LIABILITY TO DEATH AT THE DIFFERENT AGES (EXCLUDING CHOLERA).

	Died per 1,000 of Strength.				Ratio of Liability in percentages.				
	Under 20.	20 to 24.	25 to 29.	30 & upwards.	Under 20.	20 to 24.	25 to 29.	30 & upwards.	
1865—70	7·61	13·67	17·41	29·94	11·09	19·92	25·37	43·62	=100
1871	8·31	10·96	13·81	26·98	13·84	18·25	22·99	44·92	=100
1872	4·95	11·26	14·75	25·30	8·79	20·02	26·22	44·97	=100
1873	4·18	9·66	10·62	21·71	9·05	20·92	23·00	47·03	=100
1874	6·31	12·34	12·38	17·56	12·99	25·39	25·48	36·14	=100
1875	6·62	9·56	11·75	19·15	14·06	20·31	24·96	40·67	=100
1871—75	6·27	10·76	12·61	21·98	12·15	20·84	24·43	42·58	=100
1876	4·47	9·08	11·21	18·46	10·34	21·01	25·94	42·71	=100

Detailed ratios extending the range of age, from below 20 to 40 and upwards.

This is the ratio in which mortality progresses with age, extending the range to 40 and upwards:

Army of India, 1871-75.

Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Total.
4·3	8·7	10·5	14·2	22·8	39·5	= 100

The progressiveness of the ratio for all diseases of degeneration is very marked; the progress towards decay is steady as years increase: apoplexy, hepatitis, dysentery, phthisis, heart disease, and the diseases grouped under "All other causes" show this phenomenon most remarkably:—

	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
Cholera	·51	2·26	2·55	2·93	2·82	4·67
Fevers	·76	1·14	1·31	·89	1·42	2·63
Enteric Fever	2·35	2·95	1·44	·39	·18	·44
Apoplexy	·19	·72	·99	1·70	3·05	4·38
Delirium Tremens	...	·01	·15	·31	·53	·44
Dysentery	·31	·83	1·31	1·60	2·46	6·27
Hepatitis	·19	1·11	2·03	3·20	4·15	8·46
Phthisis	·25	·80	·91	1·28	2·85	3·35
Heart disease	...	·14	·72	2·30	4·18	5·10
All other causes	1·08	2·63	3·61	5·20	8·30	15·90
All causes	5·64	12·59	15·02	19·80	29·94	51·64
All causes, excluding Cholera	5·13	10·33	12·47	16·87	27·12	46·97

A hundred deaths at the different ages were made up thus after excluding cholera deaths:—

	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 and upwards.
Fevers	14·82	11·05	10·54	5·28	5·33
Enteric Fever	45·68	28·49	11·53	2·30	·73
Heat Apoplexy	3·70	6·97	7·95	10·08	10·75
Delirium Tremens	...	·10	1·19	1·82	1·70
Dysentery	6·17	8·07	10·54	9·50	10·19
Hepatitis	3·70	10·76	16·30	19·00	16·00
Phthisis	4·94	7·77	7·26	7·58	9·62
Heart disease		1·39	5·77	13·63	14·23
All other causes	20·99	25·40	28·92	30·81	31·45
All causes	100·00	100·00	100·00	100·00	100·00

The subject illustrated in a series of eight tables. General deduction in regard to the contents.

The larger the numbers employed in such comparative statements the greater becomes the significance of the resulting ratios. Taken over a period of five years, ratios appreciably true result for the Army of each Presidency, as well as for the Army of India as a body.

In our compilations year by year, the Army of Bengal has not failed to exhibit with accuracy what we know from experience to be statistical truths; but in dealing with the Armies of the minor Presidencies, it is inexpedient to insert annually in parallel returns ratios deduced from data necessarily so limited as to preclude the possibility of their being applicable to the subject to be elucidated. When, therefore, I include the Age Tables for Madras and Bombay for 1876, in the following series, I wish them to be regarded as a contribution of figures merely, shadowing out results which will become significant in another five-year aggregate, which we expect to to find assimilated to the five-year standard here presented:—

Table showing the Number and Causes of Deaths at the different Ages from 1871 to 1875 in the Army of India, the Ratio of Deaths to Strength, and the comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE AGGREGATES OF THE ANNUAL STRENGTH OF THE ARMY OF INDIA, 1871—75.

Army of India as a body.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
295,907	15,769	97,092	80,700	61,762	102,346 / 33,729	6,855

DEATHS OF 1871—75, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS.						DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.			RATIO OF LIABILITY IN PERCENTAGES.			
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Under 25.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Total= 100.
Cholera	8	219	206	181	95	32	2·01	2·55	3·01	26·55	33·69	39·76	100
Remittent and Continued Fevers	12	111	106	55	48	18	1·09	1·31	1·18	30·45	36·59	32·96	100
Enteric Fever	37	286	116	24	6	3	2·86	1·44	·32	61·91	31·17	6·92	100
Apoplexy	3	70	80	105	103	30	·65	·99	2·33	16·37	24·94	58·69	100
Delirium Tremens	...	1	12	19	18	3	·01	·15	·39	1·82	27·27	70·91	100
Dysentery and Diarrhœa	5	81	106	99	83	43	·76	1·31	2·20	17·80	30·68	51·52	100
Hepatitis	3	108	164	198	140	58	·98	2·03	3·87	14·24	29·51	56·25	100
Phthisis pulmonalis	4	78	73	79	96	23	·73	·91	1·93	20·45	25·49	54·06	100
Heart disease	...	14	58	142	141	35	·12	·72	3·11	3·04	18·23	78·73	100
All other causes	17	255	291	321	280	109	2·41	3·61	6·94	18·60	27·85	53·55	100
All causes	89	1,223	1,212	1,223	1,010	354	11·62	15·02	25·28	22·38	28·93	48·69	100
All causes, excluding Cholera.	81	1,004	1,006	1,042	915	322	9·61	12·47	22·27	21·67	28·12	50·21	100

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Table showing the Number and Causes of Deaths at the different Ages from 1871 to 1875 in the Army of Bengal, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE AGGREGATES OF THE ANNUAL STRENGTH OF THE ARMY OF BENGAL, 1871—75.

Army of Bengal.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					64,463	
184,230	8,453	59,202	52,112	39,424	20,834	4,205

DEATHS OF 1871—75, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS AT THE DIFFERENT AGES.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.			RATIO OF LIABILITY IN PERCENTAGES.			
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Total = 100.
Cholera	8	174	167	241	2·69	3·20	3·74	27·93	33·23	38·84	100
Remittent and Continued Fevers	10	85	78	103	1·40	1·50	1·60	31·11	33·33	35·56	100
Enteric Fever	26	186	85	17	3·14	1·63	·26	62·43	32·40	5·17	100
Apoplexy	1	50	45	145	·75	·86	2·25	19·43	22·28	58·29	100
Delirium Tremens	...	1	5	18	·02	·10	·28	5·00	25·00	70·00	100
Dysentery and Diarrhœa	5	45	69	106	·74	1·32	1·64	20·00	35·68	44·32	100
Hepatitis	1	54	103	217	·81	1·98	3·37	13·15	32·14	54·71	100
Phthisis pulmonalis	2	42	49	130	·65	·94	2·02	18·01	26·04	55·95	100
Heart disease	...	9	35	187	·13	·67	2·90	3·51	18·11	78·38	100
All other causes	8	165	188	494	2·56	3·61	7·66	18·51	26·10	55·39	100
All causes	61	811	824	1,638	12·89	15·81	25·72	23·69	29·05	47·26	100
All causes, excluding Cholera	53	637	657	1,417	10·20	12·61	21·98	22·77	28·16	49·07	100
Standard of 1865-70	...	...	...	...	12·78	17·41	29·94	21·25	28·95	49·80	100

Table showing the Number and Causes of Deaths at the different Ages from 1871 to 1875 in the Army of Madras, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE AGGREGATES OF THE ANNUAL STRENGTH OF THE ARMY OF MADRAS, 1871—75.

Army of Madras as a body.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					21,615	
57,324	3,244	18,125	14,340	12,894	7,143	1,578

DEATHS OF 1871—75, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.			RATIO OF LIABILITY IN PERCENTAGES.			
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Total=100.
Cholera	...	5	20	33	·23	1·39	1·53	7·39	44·13	48·57	100
Remittent and Continued Fevers	1	12	14	4	·61	·97	·19	34·46	54·80	10·74	100
Enteric Fever	4	46	15	6	2·34	1·05	·28	63·76	28·61	7·63	100
Apoplexy	1	11	15	34	·56	1·05	1·57	17·61	33·02	49·37	100
Delirium Tremens	...	...	3	12	.....	·21	·55	.....	27·63	72·37	100
Dysentery and Diarrhœa	...	23	26	91	1·08	1·81	4·21	15·21	25·49	59·30	100
Hepatitis	2	32	38	123	1·59	2·65	5·69	16·01	26·69	57·30	100
Phthisis pulmonalis	1	15	11	41	·75	·77	1·90	21·93	22·51	55·56	100
Heart disease	...	3	13	88	·14	·91	4·07	2·73	17·77	79·50	100
All other causes	4	47	41	122	2·39	2·86	5·64	21·95	26·26	51·79	100
All causes	13	194	196	554	9·69	13·67	25·63	19·78	27·90	52·32	100
All causes, excluding Cholera	13	189	176	521	9·46	12·28	24·10	20·64	26·79	52·57	100

Table showing the Number and Causes of Deaths at the different Ages from 1871 to 1875 in the Army of Bombay, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE AGGREGATES OF THE ANNUAL STRENGTHS OF THE ARMY OF BOMBAY, 1871—75.

Army of Bombay as a body.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					16,268	
54,353	4,072	19,765	14,248	9,444	5,752	1,072

DEATHS OF 1871—75, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.			RATIO OF LIABILITY IN PERCENTAGES.			
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Under 25.	25 to 29.	30 and upwards.	Total=100.
Cholera	...	40	19	34	1·68	1·33	2·09	32·94	26·08	40·98	100
Remittent and Continued Fevers	1	14	14	14	·63	·98	·86	25·50	39·68	34·82	100
Enteric Fever	7	54	16	10	2·56	1·12	·61	59·67	26·11	14·22	100
Apoplexy	1	9	20	59	·42	1·41	3·63	7·69	25·83	66·48	100
Delirium Tremens	...	...	4	10	...	·28	·61	·...	31·46	68·54	100
Dysentery and Diarrhœa	...	13	11	28	·54	·77	1·72	17·82	25·41	56·77	100
Hepatitis	...	22	23	56	·92	1·62	3·44	15·38	27·09	57·53	100
Phthisis pulmonalis	1	21	13	27	·92	·91	1·66	26·36	26·07	47·57	100
Heart disease	...	2	10	43	·09	·70	2·65	2·62	20·35	77·03	100
All other causes	5	43	62	94	2·01	4·35	5·78	16·56	35·83	47·61	100
All causes	15	218	192	375	9·77	13·47	23·05	21·11	29·10	49·79	100
All causes, excluding Cholera*	15	178	173	341	8·09	12·14	20·96	19·64	29·47	50·89	100

Table showing the Number and Causes of Deaths at the different Ages in 1876 in the Army of India, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE STRENGTH OF THE ARMY OF INDIA ON 1ST JULY 1876.

TOTAL STRENGTH.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					19,998	
58,162	1,185	17,928	19,051	9,856	8,108	2,034

DEATHS OF 1876, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.				RATIO OF LIABILITY IN PERCENTAGES.				
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Total=100.
Cholera	2	37	44	51	1·69	2·06	2·31	2·55	19·63	23·23	26·83	29·61	100
Remittent and Continued Fevers	...	7	10	17	...	·39	·53	·85	...	22·04	29·94	48·02	100
Enteric Fever	4	67	28	6	3·38	3·74	1·47	·30	38·02	42·07	16·54	3·37	100
Apoplexy	1	12	16	65	·84	·67	·84	3·25	15·00	11·96	15·00	58·04	100
Delirium Tremens	...	...	3	3	...	...	·16	·15	...	...	51·61	48·39	100
Dysentery and Diarrhœa	...	10	32	28	...	·56	1·68	1·40	...	15·39	46·15	38·46	100
Hepatitis	...	16	30	51	...	·89	1·57	2·55	...	17·76	31·34	50·90	100
Phthisis pulmonalis	...	16	17	29	...	·89	·89	1·45	...	27·55	27·55	44·90	100
Heart disease	...	4	12	44	...	·22	·63	2·20	...	7·21	20·66	72·13	100
All other causes	1	38	72	113	·84	2·12	3·78	5·65	6·78	17·11	30·51	45·60	100
All causes	8	207	264	407	6·75	11·54	13·86	20·35	12·86	21·38	26·40	38·76	100
All causes, excluding Cholera.	6	170	220	356	5·06	9·48	11·55	17·80	11·53	21·60	26·32	40·55	100

Table showing the Number and Causes of Deaths at the different Ages in 1876 in the Army of Bengal, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE STRENGTH ON 1ST JULY 1876.

Total Strength.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
36,741	673	11,571	12,308	12,189		
				6,015	4,943	1,231

DEATHS OF 1876, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS AT THE DIFFERENT AGES.				RATIO PER 1,000 OF THE STRENGTHS ABOVE STATED.				RATIO OF LIABILITY IN PERCENTAGES.				
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Total=100.
Cholera	1	27	43	44	1·49	2·33	3·50	3·61	13·63	21·32	32·02	33·03	100
Remittent and Continued Fevers	...	4	7	15	...	·34	·57	1·23	...	15·89	20·63	57·48	100
Enteric Fever	1	45	14	4	1·49	3·89	1·14	·33	21·75	56·79	16·64	4·82	100
Apoplexy	1	8	13	43	1·49	·69	1·06	3·53	22·01	10·19	15·06	52·14	100
Delirium Tremens	...	...	2	2	...	...	·16	·16	...	...	50·00	50·00	100
Dysentery and Diarrhœa	...	8	16	17	...	·69	1·30	1·40	...	20·35	38·35	41·30	100
Hepatitis	...	10	15	27	...	·87	1·22	2·22	...	20·19	28·31	51·50	100
Phthisis pulmonalis	...	9	12	20	...	·78	·97	1·63	...	23·08	28·70	48·22	100
Heart disease	...	1	7	28	...	·09	·57	2·30	...	3·04	19·26	77·70	100
All other causes	1	20	52	69	1·49	1·73	4·22	5·66	11·37	13·21	32·21	43·21	100
All causes	4	132	181	269	5·96	11·41	14·71	22·07	11·00	21·07	27·17	40·76	100
All causes, excluding Cholera	3	105	138	225	4·47	9·08	11·21	18·46	10·34	21·01	25·94	42·71	100
Standard of 1871—75, excluding Cholera	...	...	...	...	6·27	10·76	12·61	21·98	12·15	20·84	24·43	42·58	100
Standard of 1865—70 ,, ,,	...	...	...	...	7·61	13·67	17·41	29·94	11·09	19·92	25·57	43·62	100

Table showing the Number and Causes of Deaths at the different Ages in 1876 in the Army of Madras, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE STRENGTH ON 1ST JULY 1876.

Total Strength.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
11,135	384	3,418	3,205	4,128		
				1,970	1,719	439

DEATHS OF 1876, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS AT THE DIFFERENT AGES.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.				RATIO OF LIABILITY IN PERCENTAGES.			
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 24.	25 to 29.	30 and upwards.	Total=100.
Cholera	1	9	1	6	2·60	2·63	·31	1·45	*	*	*	*
Remittent and Continued Fevers	...	2	2	1	...	·59	·62	·24	*	*	*	*
Enteric Fever	...	14	7	1	...	4·10	2·19	·24	62·79	33·54	3·67	100
Apoplexy	...	2	2	17	...	·59	·62	4·12	11·07	11·63	77·30	100
Delirium Tremens	...	...	1	1	...	...	·31	·24	*	*	*	*
Dysentery and Diarrhœa	...	1	10	8	...	·29	3·12	1·94	*	*	*	*
Hepatitis	...	4	8	10	...	1·17	2·50	2·42	19·21	41·06	39·73	100
Phthisis pulmonalis	...	1	4	6	...	·29	1·25	1·45	9·70	41·80	48·50	100
Heart disease	...	2	4	8	...	·59	1·25	1·94	15·61	33·07	51·32	100
All other causes	...	10	8	23	...	2·92	2·50	5·58	26·55	22·73	50·72	100
All causes	1	45	47	81	2·60	13·17	14·67	19·62	27·75	30·91	41·34	100
All causes, excluding Cholera.	...	36	46	75	...	10·54	14·36	18·17	24·47	33·34	42·19	100

* The numbers are in most cases too small to admit of accurate comparison.

Table showing the Number and Causes of Deaths at the different Ages in 1876 in the Army of Bombay, the Ratio of Deaths to Strength, and the Comparative Liability to Death in relation to Age from the Chief Causes of Mortality.

DISTRIBUTION ACCORDING TO AGE OF THE STRENGTH OF THE ARMY OF BOMBAY, ON 1ST JULY 1876.

Total Strength.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					3,681	
10,286	128	2,939	3,538	1,871	1,446	364

DEATHS OF 1876, AND THE DEATH-RATES AT THE DIFFERENT AGES.

CAUSES OF DEATHS.	NUMBER OF DEATHS.				DIED PER 1,000 OF THE STRENGTHS ABOVE STATED.				RATIO OF LIABILITY IN PERCENTAGES.				
	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Under 20.	20 to 24.	25 to 29.	30 and upwards.	Total=100.
Cholera	...	1	...	1	...	·34	...	·27	...	...	...	...	*
Remittent and Continued Fevers	...	1	1	1	...	·34	·28	·27	...	...	...	...	
Enteric Fever	3	8	7	1	23·44	2·72	1·98	·27	...	...	...	...	
Apoplexy	...	2	1	5	...	·68	·28	1·36	...	...	...	...	
Delirium Tremens	...	...	...	...	...	.....	...	...	...	...	...	...	
Dysentery and Diarrhœa	...	1	6	3	...	·34	1·70	·82	...	...	...	...	
Hepatitis	...	2	7	14	...	·68	1·98	3·80	...	...	...	...	
Phthisis pulmonalis	...	6	1	3	...	2·04	·28	·82	...	...	...	...	
Heart disease	...	1	1	8	...	·34	·28	2·17	...	...	...	...	
All other causes	...	8	12	21	...	2·72	3·39	5·70	...	...	...	...	
All causes	3	30	36	57	23·44	10·20	10·17	15·48	...	...	...	...	
All causes, excluding Cholera	3	29	36	56	23·44	9·86	10·17	15·21	...	...	...	...	

* The numbers are in most cases too small to admit of accurate comparison.

CHAPTER III.

THE MEDICAL HISTORY OF REGIMENTS NEW TO INDIA AND OF REGIMENTS AFTER DIFFERENT PERIODS OF RESIDENCE, SHOWING THE VICISSITUDES INCIDENT ON A TOUR OF INDIAN SERVICE AND THE LOSS THROUGHOUT.

The facts contained in the preceding Chapter demonstrate the truth that a very large number of men break down in the early years of their Indian service. In several of my previous reports, I have tried to show how important it is that the fact should be apprehended, and that regiments new to India should be specially cared for and placed, as far as the contingencies of the service will admit, in a position where they are likely to encounter the climatic influences, inseparably connected with residence in India, under the most advantageous conditions.

The medical history of regiments new to India in the period 1871—76, is consistent with that illustrated in previous reports.

The results of the past six years entirely bear out the conclusions arrived at from a study of the history of the Army of 1858, and of the new regiments which, from 1864 onwards to 1870, arrived in India to replace the corps which left the country on the completion of their tour of service.

While the components and their proportions remain the same, there has been a marked diminution in the death-rate.

But while the general constitution of the sick-rates and death-rates has varied but little, the same progress towards improvement observed in the case of the Army, as a body, is brought prominently before us in the history of the new regiments. The mortality of the new regiments of 1871—75 is one-half, as compared with the results of 1864—69, which I recorded in my first report on age and length of service; 48 per 1,000 was the death-rate of 1864—69, and 24 per 1,000 is the ratio of 1871—75. Even excluding the cholera ratio, which was unnaturally exaggerated in 1864—69 by the epidemics of 1867 and 1869, which were of much greater intensity than those of 1872 and 1875 in the more recent period, a decrease of 12 per 1,000 has taken place in the death-rate. But still, with all the tendency towards good, the newly arrived have died in a strikingly larger proportion. The death-rate for the Army of India, after excluding cholera and violent deaths, has in the last six years fluctuated between 11 and 15 per 1,000; but the minimum reached by the new regiments has been 17 per 1,000, and this in one year only of the six; and 19 to 23 per 1,000 is the range for the remaining five years. The average death-rate, after excluding cholera and violent deaths, was, for the years 1871—75, 20·94, and for 1876, 22·08 per 1,000.

The death-rates of 1864—69 and their constitution compared with those of 1871—75.

Compared with the standard of 1864-69 the causes of death from the chief causes of mortality bore the following proportions:

	1871—75.		1864—69.		Died per 1,000. 1871—75.	Died per 1,000. 1864—69.
Fevers	47		36		7·96	8·46
Dysentery	11	69	17	69	1·83	3·98
Hepatitis	11		16		1·92	3·71
Respiratory diseases	5		6		·78	1·40
Heart disease	6		4		1·00	·91
Phthisis pulmonalis	9	31	10	31	1·46	2·38
All other diseases, excluding Heat Apoplexy	11		11		1·97	2·72
	100		100		16·92*	23·56*

Fever, dysentery, and hepatitis give in both periods 69 per cent. of all deaths from disease, after leaving out heat apoplexy, which is necessarily excluded, since it fluctuates from year to year to so great an extent as to destroy a comparative statement such as the above.*

The proportion of deaths from enteric fever to the mortality from all diseases.

While the mortality from dysentery and hepatitis has been reduced to one-half, there is no appreciable improvement in the death-rate from fever; for a reduction of ·50 is not worth taking into account. And when we come to reflect that 33 per cent. of all deaths from disease are due to the fever of the unacclimatised, it is very important that there should be no misunderstanding as to the nature and character of this fever.

The proportion which enteric fever-deaths bear to the total fever-deaths is actually much understated even here, where 79 per cent. of enteric are shown against 21 per cent. of fevers called remittent and continued in the Death Table for the period.

The mortality from enteric fever in previous years as large as in the period 1871—76.

Going back into past history also, we can pick up the clue which was wanting, and we can affirm that the relative proportion of enteric fever-deaths has never been less than in the period more immediately before us. Here is a demonstration of the fact. Reduced to monthly experience, we recognise that of enteric fevers 70 per cent. fall in the months from April to September, 16 per cent. from October to December, and 14 per cent. in the months of January, February and March. Now, taking indiscriminately all fevers of new regiments, and referring to our standards, namely, the new Army of 1858 of Upper India and the new regiments of 1864—69, an almost absolute identity in the ratio of proportion in relation to months is

* For 1864—69 the ratio for Heat Apoplexy was 8·18, and for 1871—75 2·42 per 1,000.

perceived, which makes it evident that in all three periods we are dealing with exactly the same class of fevers, call them by what name we may :—

Enteric Fever of newly-arrived troops.

DIED PER CENT. OF TOTAL DEATHS.

		1871-75.	Standard of 1864-69 (all Fevers).	New Army of 1858 (all Fevers).
January	6·0			
February	4·5	13·7	11·6	8·6
March	3·2			
April	9·0			
May	11·4			
June	12·3			
July	10·7	70·2	72·7	74·7
August	10·3			
September	16·5			
October	7·3			
November	4·5	16·1	15·7	16·7
December	4·3			
TOTAL	100·0	100·0	100·0	100·0

General statistics of newly-arrived regiments, and the ratios compared with those of 1864—69.

We do not expect a small admission-rate or a low sick-rate, in the case of newly-arrived regiments; and we find in many instances very high sick-rates associated with exceptionally low death-rates. Thus, for example, four new regiments stationed at Poona between 1871 and 1875, give death-rates ranging from 4·50 to 13 per 1,000, and between them only three fever deaths, all enteric, in the course of four seasons, while in every case the admission-rate was high, and 2,231 cases of fever came under treatment.

The statistics for the five years, 1871—75, are embodied in the table on page 52 ; and the ratios for each of the five years face this statement, that they may be compared year by year and with the aggregate. These are the general ratios for each of the six past years :—

Regiments in the first year of service, 1871—76.

	Strength.	Daily sick per 1,000.	Admission-rate per 1,000.	DEATH-RATE PER 1,000. Cholera.	All other causes.	Excluding violent deaths.	Army as a body.*
1871	4,372	51·0	1289·6	None	17·84	17·38	14·63
1872	4,000	62·0	1629·2	9·25	20·25	19·00	15·33
1873	4,608	61·2	1576·9	·43	21·71	19·97	12·80
1874	3,934	69·9	1818·0	·51	25·67	22·88	11·74
1875	4,959	50·8	1299·3	3·83	19·76	18·55	12·43
1876	4,304	63·0	1444·9	3·48	23·24	22·08	11·39

Compared with the monthly sick-rates of 1864—69, the same ratios of 1871—75 stand thus :—

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1864-69	48	48	49	57	62	75	72	75	81	81	66	55
1871-75	52	52	49	56	59	61	65	68	68	63	59	51

The annual average shows a diminution of 5·5 in the sick-rate for the later of the two periods.

The dengue of 1872 adds 24 per 1,000 to the admission-rate of 1871-75 ; omitting this, the ratio of 1871—75 is 1485·5 per 1,000, against 1638·4 the ratio for 1864—69. In what respects these ratios differ is shown here :—

Regiments in the first year, 1864—69, compared with 1871—75.

	1864—69.	Admitted per 1,000 of Strength.	1871—75.		New army of 1858.†
Cholera	18·7		3·5		5·0
Small-pox	3·1		1·0		9·7
Ague	140·0	523·9	175·8	504·1	1333·3
Remittent and Continued Fevers	383·9		328·3		
Heat Apoplexy	16·8		5·0		55·8
Delirium Tremens	3·6		2·8		6·2
Dysentery	66·2		52·9		231·7
Diarrhœa	153·1		103·1		303·5
Hepatitis	35·6		35·2		69·0
Spleen disease	1·2		1·1		.....
Respiratory diseases	87·3		85·4		92·3
Phthisis	12·2		10·1		6·0

* Excluding cholera and violent deaths. † In the Field.

	Admitted per 1,000 of Strength. 1864—69.	1871—75.	New Army of 1858.
Scurvy	·4	·4	...
Rheumatism	51·2	52·4	72·4
Venereal diseases	235·4	190·5	270·6
Eye diseases	44·3	32·8	68·6
Abscess and Ulcer	140·7	111·3	184·4
Wounds and Accidents	73·1	94·9	162·3
All other causes	171·6	199·0	227·6
	1638·4	1485·5	3098·4

The locality as affecting the death-rates of newly-arrived regiments.

Making allowance for the peculiarities of certain years, we may assume that climatic agencies will not materially differ in their effects in different years, as regards bodies of the same constitution stationed in the same locality. It is therefore important to keep up a local record to serve as an index of the localities which experience has shown to be adapted for, or unsuited to, the requirements of newly-arrived troops. Umballa and Bareilly are the two stations of Bengal which appear to most advantage in the following statement. Umballa owes its small death-rate in some measure to the removal to the hills of the young men of new regiments; its proximity to the hill stations affords the opportunity, and the withdrawal of a large number of lads during the hot months is generally considered expedient. Hazaribagh, Lucknow, Fyzabad, and Agra have afforded the highest death-rates of the period; but even in the best stations, it is rare to find a new regiment showing a death-rate below 17 per 1,000.

In the Bombay and Madras Presidencies, Poona, Bellary, and Bangalore show lower death-rates than any station of Bengal, excepting Umballa in 1877.

Newly-arrived Regiments in relation to locality—Death-rates in the first year of Indian Service in different Stations.

Station.	Regiment.	Season	Excluding Cholera. Deaths.	Death-rate per 1,000.	Cholera Deaths.
Hazaribagh	63rd Regiment.	1871	16	17·35	
,,	2-22nd ,,	1874	32	36·45	
Fyzabad	51st ,,	1873	14	15·89	
,,	1-25th ,,	1876	25	27·78	2
Lucknow	40th ,,	1873	24	27·55	1
,,	13th Hussars.	1874	8	17·98	
Cawnpore	73rd Regiment.	1874	19	21·06	1
Bareilly	1-18th ,,	1875	10	11·01	1
Muttra	10th Hussars.	1873	8	16·46	
Agra	65th Regiment.	1871	23	25·00	
,,	4-60th ,,	1877	15	20·30	2
Umballa	72nd ,,	1871	11	12·14	
,,	4th Bat. Rifle B.	1874	7	8·10	
,,	1-12th Regiment.	1877	4	4·54	
Jullundur	54th ,,	1872	20	22·00	17
,,	81st ,,	1875	16	18·40	4
Ferozepore	34th ,,	1876	16	17·22	
Sialkot	9th Lancers.	1875	12	26·14	
Rawalpindi	70th Regiment.	1872	19	21·62	7
,,	2-9th ,,	1875	15	17·42	
Poona	56th ,,	1871	4	4·45	
,,	68th ,,	1872	7	8·02	5
,,	2-7th ,,	1874	8	8·21	
,,	2-15th ,,	1875	9	12·90	8
,,	2-11th ,,	1877	3	3·97	3
Mhow	2-17th ,,	1877	7	8·24	
Kamptee	44th ,,	1872	19	21·11	
,,	33rd ,,	1876	17	19·04	5*
Bellary	48th ,,	1872	5	5·45	
Bangalore	14th Hussars.	1876	3	6·96	
Cannanore	89th Regiment.	1871	20	22·03	
,,	43rd ,,	1873	18	21·00	
Secunderabad	2-16th ,,	1876	14	15·71	3
,,	12th Lancers.	1877	9	19·57	2
Rangoon	67th Regiment.	1873	11	12·74	1

The statistics of the first 12 months of residence for all regiments and brigades of artillery which came to India between 1871 and 1876 are aggregated in the tables which follow. They are given month by month, that the influence of climate on the development of disease in general, and of special diseases, may be studied.

* On the march, *en route* to Wellington.

Table showing the Sickness and Mortality in the First Twelve Months of Indian Service of the Regiments which arrived in India between 1871 and 1875, and the Prevalence of the Chief Diseases in each Month.

Months.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.															Deaths from Violence.	Suicidal Deaths.
						Cholera.	Smallpox.	Enteric Fever.	Fevers, Remittent and Continued.	Apoplexy.	Delirium Tremens.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.		
January	22,429	1,172	52·3	35	1·56	...	...	12	4	1	...	1	...	1	1	5	2	5	...	...	...	1	2	...
February	22,318	1,168	52·3	20	·90	...	1	2	...	2	...	2	...	3	...	...	1	2	...	1	...	1	2	...
March	22,354	1,106	49·5	27	1·21	...	1	7	1	2	...	1	...	2	...	...	2	...	...	...	...	2	2	...
April	21,977	1,222	55·6	44	2·00	...	...	17	8	2	...	5	...	4	...	2	3	...	...	...	...	1	2	...
May	21,759	1,287	59·2	65	2·85	3	3	19	4	17	1	7	...	1	...	...	2	1	...	...	...	1	2	...
June	21,731	1,322	60·9	60	2·71	1	2	15	4	20	...	1	...	4	...	1	2	5	...	...	1	3	1	1
July	21,622	1,404	64·9	48	1·94	6	...	11	5	6	...	3	...	4	...	...	2	1	...	1	...	5	3	1
August	21,580	1,460	67·7	72	1·85	32	...	11	2	3	...	3	...	8	...	1	1	3	...	1	...	4	3	...
September	21,462	1,458	67·9	62	2·28	13	...	25	6	...	...	4	...	4	1	...	...	6	...	...	...	3	...	...
October	21,486	1,354	63·0	27	1·12	3	...	6	2	...	...	7	...	3	...	1	2	1	...	...	...	1	2	...
November	21,857	1,285	58·8	32	1·37	2	...	7	...	...	...	1	1	6	...	1	1	5	...	...	...	3	4	1
December	21,892	1,124	51·4	26	1·19	...	1	5	1	...	1	4	...	2	...	5	2	3	...	...	...	2	...	...
						60	8	137	37	53	2	39	1	42	2	17	22	32	...	3	1	27	30	5
						Died per 1,000 of the Average Strength.																		
For the 5-year period	21,872	1,280	58·5	518	23·68*	2·74	·36	6·26	1·70	2·42	·09	1·78	·05	1·92	·09	·78	1·00	1·46	...	·14	·05	1·24	1·37	·23

Causes of Admissions.	Number of Admissions into Hospital in each Month.												Total Admitted during the Year.	Admitted per 1,000 of Strength.	Died out of each Hundred Cases treated.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue (1872)	...	...	...	258	94	21	32	33	50	32	5	...	525	24·0	...
Cholera	...	...	...	...	5	1	9	41	13	3	4	...	76	3·5	78·95
Smallpox	2	4	4	4	4	3	...	...	...	...	1	...	22	1·0	36·36
Enteric Fever	41	14	11	38	33	21	22	22	38	15	14	25	294	13·5	46·60
Fever, Intermittent	165	183	165	124	104	172	285	363	633	776	537	319	3,846	175·8	·34
Fevers, Remittent and Continued	186	155	549	837	842	935	835	814	684	486	375	187	6,885	314·8	
Apoplexy	3	1	8	5	24	47	12	7	2	...	1	...	110	5·0	48·18
Delirium Tremens	5	1	2	4	3	...	7	12	6	9	7	5	61	2·8	3·28
Dysentery	73	45	42	74	80	94	139	176	139	111	81	104	1,158	52·9	3·37
Diarrhœa	128	107	206	282	177	216	337	276	173	115	120	117	2,254	103·1	...
Hepatitis	46	59	31	39	49	73	86	72	98	77	77	64	771	35·2	5·45
Spleen Disease	...	...	1	1	1	2	1	2	1	3	4	9	25	1·1	8·00
Respiratory Diseases	274	157	190	189	169	144	146	132	113	102	114	137	1,867	85·4	·91
Phthisis Pulmonalis	13	13	11	15	12	37	25	17	21	16	29	12	221	10·1	14·48
Scurvy	...	1	...	1	...	1	1	2	...	1	...	1	8	·4	37·50
Rheumatism	104	85	99	118	111	92	104	93	105	85	76	74	1,146	52·4	
Venereal Diseases	489	452	435	337	295	297	392	303	284	267	319	387	4,167	190·5	
Eye Diseases	53	46	51	84	68	51	61	81	76	53	43	51	718	32·8	
Abscess and Ulcer	196	146	239	232	214	229	257	218	202	162	199	140	2,434	111·3	·34
Wounds and Accidents	181	175	248	227	194	146	153	108	155	139	161	188	2,075	94·9	
All other Causes	313	323	366	405	342	395	473	392	369	354	355	266	4,353	199·0	
	2,272	1,967	2,658	3,274	2,821	2,977	3,287	3,164	3,182	2,806	2,522	2,086	33,016		
	Admitted per 1,000 of the Average Strength in each Month.														
	101·3	88·1	118·9	149·0	129·6	137·0	152·0	146·6	148·2	139·6	115·4	95·3	1509·5		

* The monthly details of this ratio are given exclusive of Cholera.

Comparative Statement showing the Ratios of Sickness and Mortality of the Regiments new to India in each year from 1871 to 1876.

	Ratios per 1,000 of Strength.						
	1871.	1872.	1873.	1874.	1875.	1871-75.	1876.
I.—Daily sick-rate of each month.							
January	50·3	56·8	50·1	59·1	46·8	52·3	59·5
February	43·1	54·6	50·8	54·8	58·0	52·3	55·7
March	39·6	54·3	57·7	56·5	41·0	49·5	52·7
April	42·7	58·6	62·8	70·1	46·7	55·6	61·5
May	53·6	65·9	67·9	69·4	42·8	59·2	56·8
June	55·9	64·0	67·7	74·1	45·9	60·9	62·8
July	67·3	58·8	66·6	77·2	56·6	64·9	60·4
August	62·1	64·8	68·3	92·2	54·6	67·7	67·1
September	50·5	78·0	76·3	81·7	56·6	67·9	78·2
October	49·1	73·1	65·8	76·3	54·0	63·0	72·8
November	51·0	61·9	53·9	73·5	56·2	58·8	67·1
December	48·4	56·1	47·8	55·3	50·4	51·4	61·4
Annual daily sick-rate	51·0	62·0	61·2	69·9	50·8	58·5	63·0
II.—Admission-rate of each month.							
January	101·7	111·0	108·8	101·0	85·9	101·3	97·5
February	70·6	84·8	95·9	96·2	92·6	88·1	101·4
March	74·2	90·5	128·9	195·4	112·0	118·9	108·0
April	109·0	183·4	188·1	168·2	106·1	149·0	116·8
May	138·7	145·1	144·4	133·8	92·4	129·6	131·6
June	124·8	122·7	138·5	163·3	137·0	137·0	120·8
July	157·2	146·5	154·8	190·8	118·8	152·0	104·9
August	150·4	147·3	131·5	171·7	136·7	146·6	148·5
September	89·1	180·0	161·9	212·8	110·7	148·2	152·6
October	103·6	198·4	120·6	146·7	96·6	130·6	165·0
November	91·8	126·8	104·5	123·3	131·7	115·4	106·8
December	80·7	101·2	102·5	117·2	79·0	95·3	93·5
Admission-rate of the year	1289·6	1629·2	1576·9	1818·0	1239·3	1509·5	1444·9
III.—Composition of the annual admission-rate.							
Cholera	·5	9·8	·7	·8	5·9	3·5	5·1
Enteric Fever	11·0	5·8	25·2	18·6	6·8	13·5	16·3
Intermittent Fever	98·4	343·5	66·0	233·6	165·1	175·8	162·9
Remittent and Continued Fevers	386·1	262·2	321·0	426·3	200·0	314·8	270·4
Apoplexy	1·6	7·0	5·4	4·3	6·7	5·0	15·6
Delirium Tremens	5·5	2·2	...	2·3	3·8	2·8	4·2
Dysentery	60·8	32·8	98·3	48·8	23·4	52·9	50·9
Diarrhœa	57·9	89·5	145·0	133·7	90·6	103·1	71·6
Hepatitis	21·9	41·2	67·1	34·8	12·9	35·2	29·5
Spleen Disease	·9	1·5	·4	2·5	·6	1·1	4·4
Respiratory Diseases	42·5	77·8	96·0	107·8	101·6	85·4	87·4
Phthisis Pulmonalis	13·5	11·0	11·4	7·6	7·1	10·1	13·0
Rheumatism	35·5	67·8	52·1	43·5	62·3	52·4	48·3
Venereal Diseases	201·7	170·5	197·0	228·8	160·3	190·5	213·0
Eye Diseases	48·3	20·5	21·7	44·2	30·5	32·8	19·5
Abscess and Ulcer	89·4	107·0	115·4	136·5	110·1	111·3	119·2
Wounds and Accidents	71·8	82·5	89·0	108·8	119·6	94·9	76·2
All other Causes	142·3	165·4	265·2	235·1	192·0	200·4	237·4
Dengue	.....	131·2	.....	.....	.....	24·0	.....
Admission-rate of the year	1289·6	1629·2	1576·9	1818·0	1239·3	1509·5	1444·9
IV.—Composition of the annual death-rate.							
Cholera	.....	9·25	·43	·51	3·83	2·74	3·48
Enteric Fever	5·26	3·00	8·25	10·17	4·84	6·26	7·20
Remittent and Continued Fevers	3·20	2·75	·43	·76	1·41	1·70	·93
Apoplexy	·68	3·75	2·17	2·80	2·82	2·42	5·38
Delirium Tremens	.....	.....	.....	.....	·40	·09	.....
Dysentery	2·74	1·75	1·30	2·03	1·21	1·78	2·32
Diarrhœa	.....	.....	·22	.....	.....	·05	.....
Hepatitis	·68	1·50	3·91	2·80	·81	1·92	·93
Spleen Disease	·46	.....	.....	.....	.....	·09	.....
Respiratory Diseases	·46	·50	·22	.....	2·42	·78	·70
Heart Diseases	1·15	1·25	1·30	·51	·81	1·00	·70
Phthisis Pulmonalis	1·60	2·25	1·30	·76	1·41	1·46	1·63
Injuries	·46	1·25	1·74	2·79	1·21	1·60	1·16
Suicidal Deaths							
All other Causes	1·15	2·25	·87	3·05	2·42	1·79	2·09
Annual death-rate	17·84	29·50	22·14	26·18	23·59	23·68	26·72

Regiments in the First Year of Indian Service, 1876.

Table showing the Sickness and Mortality in Newly-arrived Regiments during 1876, and the Prevalence of the Principal Diseases in each Month of the Year.

Months.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																		Suicidal Deaths.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Delirium Tremens.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	4,367	260	59·5	7	...	...	...	4	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...
February	4,361	243	55·7	7	...	1	...	4	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	...
March	4,363	230	52·7	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
April	4,357	268	61·5	13	...	6	...	1	...	...	2	...	1	...	...	...	...	1	1	...	...	...	...	...	2
May	4,347	247	56·8	16	...	1	...	5	...	...	6	...	1	...	...	...	...	1	...	...	...	...	...	2	...
June	4,331	272	62·8	20	...	3	...	6	...	...	9	...	...	...	...	...	...	...	1	...	...	...	...	1	...
July	4,288	259	60·4	8	...	...	...	1	...	...	4	...	...	...	...	...	1	...	1	...	...	...	...	...	1
August	4,275	287	67·1	14	...	3	...	4	...	...	2	...	1	...	...	...	1	...	1	...	...	...	...	2	...
September	4,233	331	78·2	11	...	1	...	2	...	4	1	...	2	...	...	...	...	...	...	...	...	...	...	1	...
October	4,189	305	72·8	7	...	...	...	3	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	1	...
November	4,204	282	67·1	6	...	...	...	1	...	...	...	...	3	...	1	...	...	...	1	...	...	...	...	...	...
December	4,332	266	61·4	5	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	1
						15	...	31	...	4	24	...	10	...	4	...	3	3	7	...	...	...	2	8	3
						Died per 1,000 of the Average Strength.																			
For the Year	4,304	271	63·0	115	26·72	3·48	...	7·20	...	·93	5·58	...	2·32	...	·93	...	·70	·70	1·63	...	...	...	·46	2·09	·70

Causes of Admissions.	Number of Admissions into Hospital in each Month.												Total admitted during the Year.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	1	...	13	1	2	...	4	1	...	...	...	23	5·1	69·5
Small-pox	...	...	...	...	...	...	...	...	...	...	...	1	1	·2	...
Enteric Fever	13	6	3	4	11	8	3	8	4	6	2	2	70	16·3	44·2
Fever, Intermittent	16	10	18	8	19	31	26	40	121	219	106	87	701	162·9	...
,, Remittent and Continued	36	28	50	78	117	137	122	137	197	137	109	35	1,164	270·4	3·4
Apoplexy	...	1	...	4	9	36	10	4	2	1	...	...	67	15·6	35·8
Delirium Tremens	2	2	1	2	...	...	1	1	2	2	2	3	18	4·2	...
Dysentery	6	5	8	18	16	13	18	48	24	29	19	15	219	50·9	4·5
Diarrhœa	13	19	33	57	35	19	18	43	25	20	12	14	308	71·6	...
Hepatitis	9	1	1	7	13	11	12	14	16	18	12	13	127	29·5	3·1
Spleen Disease	...	2	1	...	1	1	2	...	...	1	5	6	19	4·4	...
Respiratory Diseases	28	49	60	59	54	23	18	29	19	21	9	25	376	87·4	·9
Phthisis Pulmonalis	1	6	5	4	...	3	2	5	...	11	9	10	56	13·0	12·5
Scurvy	...	...	1	...	...	...	...	...	...	...	...	...	1	·2	...
Rheumatism	11	17	18	27	32	16	21	23	9	23	7	14	208	48·3	
Venereal Diseases	137	127	97	61	81	51	39	66	53	69	46	90	917	213·0	
Eye Diseases	13	6	10	4	11	2	3	22	5	3	1	4	84	19·5	·5
Abscess and Ulcer	40	44	43	38	34	66	49	64	49	34	33	19	513	119·2	
Wounds and Accidents	33	43	38	33	24	20	17	34	20	18	25	23	328	76·2	
All other Causes	68	75	84	101	124	84	89	112	99	79	61	44	1,020	237·0	
	426	442	471	509	572	523	459	635	646	691	449	405	6,219		
	Admitted per 1,000 of the Average Strength in each Month.														
	97·5	101·4	108·0	116·8	131·6	120·8	104·9	148·5	152·6	165·0	106·8	93·5	1444·9		

The death-statistics of the same body in the second year of Indian service.

We expect to find in the statistics of the same body of men after 12 months' residence in India, a considerable decrease in the diseases which show themselves in an exaggerated form in the first hot season. These are the severer class of fevers, heat apoplexy and bowel complaints; and the death-rates for these diseases may be expected to show a corresponding diminution.

This expectation is borne out in the figures which follow. Among the admission-rates, enteric fever goes down from 13 in the first year to 5 in the second; remittent and continued fevers from 315 to 150; heat apoplexy from 5 to 1·7; and bowel complaints from 156 to 112.

Excluding cholera and violent deaths, the death-rate per 1,000 diminishes from 19·34 to 11·55,—a ratio lower than that of the Army as a body. The enteric fever ratio of 6·26 in the first year, becomes 1·93 in the second; and fevers as a class give in the second year a ratio of 2·88, which contrasts with 7·96, the ratio of the first year. The mortality from heat apoplexy is diminished by one-half, the ratio of the first year being 2·42, and of the second 1·12; and dysentery shows a death-rate of 1·20 against 1·83, which was the death-ratio of the first year.

As a whole, the death-ratio of the second year is diminished by 7·79 per 1,000; and out of this, the three causes of mortality special to the young and unacclimatised contribute 7·01. These results agree with the statistics of the Army of 1858—70, studied in my first report on length of service (pages 38—40).

New Regiments of 1871-75, showing in contrast the Admission-rates and Death-rates in the First and Second Years of Indian Service.

	Admission-rate per 1,000.			Death-rate per 1,000.				
	First year, 1871—75.	Second year, 1872—76.		First year, 1871—75.		Second year, 1872—76.	
Cholera	3·5	5·2	Cholera	2·74		3·22	
Enteric Fever	13·5	5·5	Small-pox	·36		·08	
Ague	175·8	292·2	Enteric Fever	6·26	7·96	1·93	2·88
Remittent and Continued Fevers	314·8	150·3	Remittent and Continued Fevers	1·70		·95	
Heat Apoplexy	5·0	1·7	Heat Apoplexy	2·42		1·12	
Delirium Tremens	2·8	2·6	Delirium Tremens	·09		.....	
Dysentery	52·9	47·2	Dysentery	1·83		1·20	
Diarrhœa	103·1	64·5	Hepatitis	1·92		2·02	
Hepatitis	35·2	53·0	Respiratory Diseases	·78		·47	
Respiratory diseases	85·4	64·1	Heart Diseases	1·00		·86	
Phthisis	10·1	10·7	Phthisis Pulmonalis	1·46		1·25	
Rheumatism	52·4	53·3	All other Diseases	1·52		1·67	
Venereal Diseases	190·5	199·4	Accidental Deaths	1·37		·95	
Abscess and Ulcer	111·3	92·1	Suicidal Deaths	·23		·43	
Injuries	94·9	83·7					
All other Causes	258·3	239·2	All Causes	23·68		16·15	
	1509·5	1364·7	Excluding Cholera and Violent Deaths	19·34		11·55	

The constitution of the death-rate in new regiments in the first and second years, and its composition in relation to the age of the men who die.

In constructing the following table, I have taken the loss by death of new regiments in the first two years of residence in India. It is intended to show the ratios afforded by the special diseases which become developed in early service, and how these are manifested in relation to the age of the men who suffer. It has reference to a total of 894 deaths, of which 518 occurred in the first year, and 376 in the second year, of Indian service. The ratios are for a biennial, and not for an annual period.

Up to 34, I do not find that the mortality-rate of new regiments progresses much with age. Dividing all men below 34 into three classes—below 24, 25 to 29, and 30 to 34, the ratios stand thus, excluding cholera—25·91, 36·36 and 31·81 per 1,000. The middle class seems to suffer as much in proportion as the younger from enteric fever, while the liability to die from dysentery, hepatitis, and heart disease is very much increased in relation to age. Between 30 and 34, enteric fever nearly disappears, for out of 181 deaths, 5 only were of this age, and 1 above it; but apoplexy, heart disease, and the phthisis of degeneration maintain the balance and keep the ratio up to 32. Above 35, the mortality rises to 94, and excluding cholera to 80 per 1,000. This ratio may be regarded as approximate only, but is a certain index of the great risk to life among those whose systems refuse to become adapted to an Indian climate.

Deaths of Regiments in the First and Second Years of Indian Service and their Causes, shown in relation to Age, on the experience of the period 1871—76.

STRENGTH ON ARRIVAL OF REGIMENTS WHICH CAME TO INDIA FROM 1871 TO 1875.

Strength of the body.	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.
					5,020	
22,758	2,565	10,745	4,428	3,144	1,607	269

DEATHS IN FIRST TWO YEARS OF INDIAN SERVICE, AND THE DEATH-RATES AT THE DIFFERENT AGES.

Causes of Death.	Number of deaths.						Died per 1,000 of Strength in the biennial period.				Ratio of Liability in percentages.				
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and upwards.	Under 24.	25 to 29.	30 to 34.	35 and upwards.	Under 24.	25 to 29.	30 to 34.	35 and upwards.	Total = 100.
Cholera	3	68	26	15	23	3	5·34	5·87	4·77	13·86	17·90	19·67	15·98	46·45	100
Remittent and Continued Fevers	1	27	17	4	4	3	2·10	3·84	1·27	3·73	19·20	35·10	11·61	34·09	100
Enteric Fever	8	122	45	5	1	...	9·77	10·16	1·59	·53	44·31	46·08	7·21	2·40	100
Apoplexy	3	25	12	15	17	6	2·10	2·71	4·77	12·26	9·62	12·41	21·84	56·13	100
Delirium Tremens	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery and Diarrhœa	...	24	15	12	13	8	1·80	3·39	3·82	11·20	8·91	16·77	18·90	55·42	100
Hepatitis	...	25	24	14	19	4	1·88	5·42	4·45	12·26	7·83	22·58	18·53	51·06	100
Phthisis Pulmonalis	...	28	7	12	15	1	2·10	1·58	3·82	8·53	13·10	9·86	23·83	53·21	100
Heart Diseases	...	2	10	12	14	3	·15	2·26	3·82	9·06	·98	14·78	24·98	59·26	100
All other Causes	11	69	31	26	33	9	6·01	7·00	8·27	22·39	13·76	16·03	18·94	51·27	100
All Causes	26	390	187	115	139	37	31·25	42·23	36·58	93·82	15·33	20·71	17·94	46·02	100
All Causes, excluding Cholera	23	322	161	100	116	34	25·91	36·36	31·81	79·96	14·89	20·89	18·28	45·94	100

The Constitution of the Invaliding-rate in the first and second years of Indian service.

While 40 per 1,000 of strength die in the first and second years, 74 per 1,000 are invalided; 11 per cent. may be fairly regarded as the loss to be looked for in the first two years. This is a much smaller loss than the statistics of 1864—69 would have led us to anticipate. Many of the illustrations drawn from the history of these years gave a loss of from 14 to 17 per cent.; and if, in the future, the loss does not exceed the standard of 1871—75, it need not be deemed excessive.

This statement shows the loss by invaliding, and the chief causes for which men new to India were invalided between 1871 and 1876:—

Invaliding-rate of Regiments in the first and second years of Indian Service, 1871—76, and its composition.

	First year.	Second year.	In first two years.	Per cent. of total.
Hepatitis	4·39	7·03	11·42	15·5
Heart Disease*	4·13	3·25	7·38	10·0
Phthisis	3·95	4·98	8·93	12·1
General Debility	3·69	5·05	8·74	11·9
Dysentery	2·81	2·68	5·49	7·5
Epilepsy and Brain Affections†	1·76	1·71	3·47	4·7
Fevers	1·50	1·67	3·17	4·3
Rheumatism	1·23	2·94	4·17	5·7
Venereal Affections	·97	1·93	2·90	3·9
Bronchitis	·97	1·01	1·98	2·7
Ophthalmia	·57	·66	1·23	1·7
All other Causes	5·97	8·75	14·72	20·0
Loss per 1,000	31·94	41·66	73·60	100·0

The Enteric Fever of the Unacclimatised, as manifested from 1871 to 1876.

Immediately in connection with the study of the effects of age and length of service on the ratios of sickness mortality and invaliding, falls the important question, what is the enteric fever of the unacclimatised? and, now that observers from one end of India to the other, have had their attention drawn to the fact of its universal prevalence, what is the place which this fever holds in the medical history of young men and bodies of men new to India?

Enteric Fever—general statistics of prevalence in relation to age and length of service.

Out of 633 deaths in the Army of India in the six years 1871—76, which occurred in the first year of Indian service, 168 were attributed to Enteric Fever. If 48 deaths from cholera and smallpox, and 75 deaths from accident and suicide, be excluded, one-third of all deaths of the first year was caused by Enteric Fever.

Making the same reservations, 34 per cent. of all deaths in the Army of India in the six years, at the age of 24 and under, were ascribed to the same fever.

Assuming the returns to be correct, out of 73 regiments and batteries which came to India between 1871 and 1877, 9 only remained free from Enteric Fever in the first twelve months after landing.

These are the general facts; and I have tried to prove that the same ratio of prevalence has been consistent throughout the past 20 years, by showing that the monthly mortality for fevers as a class was relatively the same in different sub-divisions of the period.

I have noted above how rapid is the decline in the liability to Enteric Fever after twelve months' residence in India. Extending the observations, these are the ratios of liability at different periods of residence, taking the results of 1873—76 as best ascertained, and reckoning liability as 100:—

1 to 4 years.	5 to 7 years.	Above 7 years.	
82·44	13·69	3·87	=100

In relation to age the relative liability stands thus:—

Below 25.	25 to 29.	30 and upwards.	
61·91	31·17	6·92	=100

* Not including palpitation.

† Not including mental affections.

The effects of age and length of residence viewed in combination.

Taking age and length of service in combination, these are the results for the 368 deaths from 1873 to 1876:

DEATHS FROM ENTERIC FEVER IN YEARS OF INDIAN SERVICE.

Ages.	Total deaths.	Under one year.	Between 1 and 2 years.	2-3.	3-4.	4-5.	5-6.	6-7.	Above 7.	Per cent of total.	
24 and under	255	150	32	32	21	13	7	...	...	69	94
25 to 29 .	90	30	7	17	10	8	11	5	2	25	
30 to 34 .	17	4	1	1	...	4	...	1	6		6
35 to 39 .	4	1	1	...	...	...	1	...	1		
40 and upwards	2	...	...	1	...	...	...	...	1		
Total ...	368	185	41	51	31	25	19	6	10	—	—
Per cent. of total ...		50	25				25				
		75									100

Seventy-five per cent of these deaths occurred within three years of landing in India, and 94 per cent. of the total were among men under 30. Taken as it stands, the statement is sufficiently striking, and it would probably be more so were errors in diagnosis eliminated. But this must not be overlooked, that up to 34 there is a certain risk of contracting enteric fever; and that even after five or six years of residence, the fever may become developed in men under 34.

The enteric fever of the non-acclimatised has no geography, although certain localities are less favourable than others for its development.

In my original report I stated that enteric fever has no geography. This is absolutely borne out by subsequent experience. It has indeed become a matter of popular observation, and the question has been asked by military men, how it happens that no regiment or battery escapes enteric fever in the first year, whatever cantonment of India may be selected for it. Out of 73 different bodies, two regiments and seven batteries only returned no case of enteric fever in the first year; the heaviest loss of the period occurred in the 2-22nd Regiment at Hazaribagh, which lost 18 out of 35 men attacked. In the majority of cases, regiments and brigades in the more unsuitable stations have returned from 18 to 25 admissions in the first year.

While the mortality relative to the number treated is high, it is unduly exaggerated in our statistical returns.

We have only to note the proportion of deaths to admissions to recognise the fact that many admissions escape record, possibly because the nature of the attack is not apprehended. Out of each hundred cases treated, the number which terminated fatally is given as under:—

1871.	1872.	1873.	1874.	1875.	1876.
48	52	33	55	71	44

I am not prepared to endorse as true what is here shown. It seems more reasonable to infer that many cases of enteric fever are returned as remittent or continued, than to accept the alternative, that 50 per cent. at least of all cases of enteric fever treated have died in these years.*

Demonstration of the universality of the manifestation of enteric fever in all Regiments in the first year, 1871—77.

The statement which follows must be viewed in this aspect. We must not, however, forget, that heat influence enormously increases the tendency to death in all cases of blood poisoning, and that the proportion of deaths to cases treated must necessarily be very much in excess in a tropical as compared with a temperate climate.

Admissions and Deaths from Enteric Fever in the First Year of Indian Service in all Regiments and Batteries which arrived between 1871 and 1877.

		Admissions.	Deaths.
1871.			
63rd Regiment	Hazaribagh	18	6
65th „	Agra	(?)	8*a*
72nd „	Umballa	4	2*b*
89th „	Cannanore	12	6
56th „	Poona	1	1*c*
1872.			
13th Brigade, Royal Artillery.			
1 Battery	Rawalpindi and Hazara	...	...
2 „	Fort William	1	...
3 Battery	Ferozepore	2	1
4 „	Amritsar	1	...
5 „	Attock	1	...
6 „	Jutogh	...	...
7 „	Mecan Meer	2	1
54th Regiment	Jullundur	7	5
70th „	Rawalpindi	8	4
44th „	Kamptee	...	...*d*
48th (from Malta)	Bellary	1	1
68th Regiment	Poona	3	1

*In 1877, 233 admissions with 92 deaths were returned, which gives a death-rate of 39·50 per cent.

a. Nine deaths from other fevers; several clearly enteric.

b. 200 lads of the Regiment went for the hot weather to Dugshai and Kassauli.

c. 746 cases of remittent and continued fevers were recorded. This Regiment lost 2 young men from enteric fever in 1872.

d. 1,095 fever admissions with 2 deaths.

1873.		Admissions	Deaths.
10th Hussars	Muttra	...	1
40th Regiment	Lucknow	23	10
51st „	Fyzabad	25	11
43rd „	Cannanore	29	5
67th „	Rangoon	5	1
C Brigade, Royal Horse Artillery—			
A Battery	Meerut	12	4
B „	Secunderabad	...	...
C „	Bangalore	7	...
D „	Ahmednagar	...	...
E „	Mhow	3	3

1874.			
13th Hussars	Lucknow	4	4
2-22nd Regiment	Hazaribagh	35	18
4 Bat., Rifle Brigade	Umballa	4	1
2-7th Regiment	Poona	2	...
73rd (from Ceylon).	Cawnpore	3	3
11th Brigade, Royal Artillery—			
A Battery	Barrackpore	2	2
B „	„	5	2
C „	Dinapore	4	4
D „	Benares	...	1
E „	Allahabad	1	2
F „	Saugor	10	4
G „	Nowgong	4	2

1875.			
9th Lancers.	Sialkot	5	2
2-9th Regiment	Rawalpindi	...	1
2-15th „	Poona	13	2
1-18th „	Bareilly	1	2
81st „	Jullundur*	6	5
4th Brigade, Royal Artillery.			

* From Gibraltar.

1875.		Admissions.	Deaths
A Battery	Baroda and Kirkee	...	...
B „	Deesa	1	1
C „	Belgaum	3	2
D „	Kurrachee	5	5
E „	Kirkee	...	...
F „	Ahmedabad	1	1
G „	Nusseerabad	2	1

1876.			
14th Hussars	Bangalore	...	...
2-16th Regiment.	Secunderabad	18	7
1-25th „	Fyzabad	18	10
33rd „	Kamptee	1	1
34th „	Ferozepore	18	6
21st Brigade, Royal Artillery—			
1 Battery	Morar	1	...
2 „	Gwalior	4	1
3 „	Allahabad	...	...
4 „	Lucknow	6	1
5 „	Agra	1	1
6 „	Delhi	3	1
7 „	Jutogh	...	...

1877.†			
12th Lancers	Secunderabad	(?)	2
2-11th Regiment.	Poona	(?)	1
2-12th „	Umballa	11	1
2-17th „	Mhow	3	2
4-60th „	Agra	20	8
B Brigade, Royal Horse Artillery—			
A Battery	Umballa	1	1
B „	Umballa		
C „	Lucknow	2	1
D „	Meerut	2	1
E „	Meerut	9	2

† As far as ascertained.

The sudden change to a tropical climate causes in the young and weakly constitutioned, the infarction of the intestinal glands which results in this fever of three weeks' duration. Why the glands fill up, and whence is derived the material which accumulates, does not fall to be considered here. On the statistical data given, I hold every body of men coming from England liable to the attack of this Enteric Fever; and the question to be determined by the Sanitary Officer is, how this liability shall be obviated or lessened. I need only repeat the general assertion, that certain localities will be found more suitable than others for new troops in respect to Enteric Fever, and refer back to the table for details. After 20th April, in any locality, too much care cannot be taken of new regiments, for it is in this week that exposure is very certain to be followed by the appearance of the fever. And, again, the tendency for the fever to re-appear towards the close of the monsoon season, must be kept in mind. I gave a remarkable illustration of the general re-appearance of Enteric Fever over a wide provincial area in the last week of August 1872; and in 1876, in the same week, I find the same phenomenon repeated in several of the stations in the north of Bombay affected in 1872.

Is the Enteric Fever of the Unacclimatised a communicable disease?

Above all, it is for the Sanitary Officer to determine whether the individuals first affected may originate an outbreak in the community. The tendency of regarding this theoretically as a purely climatic fever, is apt to lead on to the extreme view, that fevers of this class are not communicable from man to man. Judging from the mere aspect of such cases as those of the 36th, 2-22nd and others, I should feel much hesitation in subscribing to the theory of non-communicability; and while admitting, that, as the rule, the cases are isolated and the facies of an outbreak entirely wanting, outbreaks which it is impossible to refer to any mere general influence do occur. Witness the outbreak in the E Battery of the 4th Brigade, stationed at Neemuch in 1876. The Battery had no Enteric Fever up to the last week of August; throughout September, eight cases and five deaths occurred, and again in November a sixth fatal case was developed. These cases were out of a body of 150 men, who had been 18 months in India. That some local cause originated or aggravated this fever, it is impossible to doubt. The comparative rarity of such outbreaks makes the study in such a case all the more necessary and important. With a proper appreciation of the large body of facts regarding Enteric Fever in India now aggregated, we are not driven to the resource of finding in every case a local reason for development; and that contagion is contracted through intercourse with the native community, is a suggestion warranted by no facts showing the presence of the fever among the general population, with which I am acquainted.

Demonstration of the truth of the assertion made in previous reports that Enteric Fever is the one disease peculiar to the young soldier in India.

In previous reports I have made the very plain statement, that this Enteric Fever is the one disease above all others from which the young soldier dies. I can give no better answer to those who have thought fit on theoretical grounds to deny the correctness of my assertion, than to produce here the figures for the period 1871—76, which thoroughly bear out my deduction :—

Enteric Fever is the Disease above all others which contributes to the Death-rate of the Young Soldier.

DEATHS IN MEN UNDER 25. ARMY OF INDIA, 1871—76.

CAUSES OF DEATH.	1871	1872	1873	1874	1875	1876	6 years.	20 and under.	21	22	23	24	Total.
Enteric Fever	69	68	67	68	52	70	394	110	81	74	61	68	394
Other Fevers	35	30	16	19	20	7	127	29	19	29	27	23	127
Heat Apoplexy	11	20	9	16	18	13	87	16	15	19	9	28	87
Dysentery	24	23	16	17	17	10	107	16	18	16	25	32	107
Hepatitis	21	26	24	19	16	17	123	11	18	29	30	35	123
Phthisis Pulmonalis	15	16	10	20	25	15	101	13	19	23	30	16	101
Heart Diseases	1	4	2	5	2	3	17	2	2	1	6	6	17
Respiratory Diseases	11	17	6	9	10	5	58	9	12	11	9	17	58
All other Diseases	20	27	20	28	29	17	141	22	13	32	37	37	141
ALL CAUSES	207	231	170	201	189	157	1,155	228	197	234	234	262	1,155

NUMBER OF DEATHS IN EACH HUNDRED, DUE TO THE CHIEF CAUSES OF MORTALITY.

Enteric Fever	33	30	39	34	28	45	34	48	41	32	26	26	34
Other Fevers	18	13	10	0	11	4	11	13	10	12	11	9	11
Heat Apoplexy	5	9	5	8	10	8	8	7	8	8	4	11	8
Dysentery	12	10	10	8	9	6	9	7	9	7	11	12	9
Hepatitis	10	11	14	10	8	11	11	5	9	12	13	13	11
Phthisis	7	7	6	10	13	10	9	6	10	10	13	7	9
Heart Diseases	...	1	1	2	1	2	1	1	1	...	2	2	1
Respiratory Diseases	5	7	3	4	5	3	5	4	6	5	4	7	5
All other Diseases	10	12	12	14	15	11	12	9	6	14	16	13	12
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100

In 1877, 37 per cent. of all deaths of men under 25 were caused by Enteric Fever. Leaving out 17 deaths from cholera and 18 accidental and suicidal deaths, 126 men of the Army of India under 25 died, and the total was made up thus :

Enteric Fever	47	37
Other Fevers	10	8
Heat Apoplexy	15	12
Dysentery	4	3
Hepatitis	12	10
Phthisis Pulmonalis	10	8
Heart Disease	2	2
Respiratory Diseases	9	8
All other Diseases	17	12
TOTAL	126	100

Leaving out cholera and violent deaths, 34 per cent. of all deaths of the Army of India from 1871 to 1876, under 25 years of age, were caused by Enteric Fever.

Under 20, 48 per cent. of all deaths are shown to have been due to it, and 41 per cent. of all deaths at the age of 21; it contributed one-third of all deaths at the age of 22, and more than a fourth of the total at the ages of 23 and 24.

In the six years, taking all deaths below 25, the lowest percentage contributed by Enteric Fever deaths to the total was 28; in 1876, it was 45; in 1873, 39; in 1874, 34; in 1871, 33; and in 1872, 30.

These figures give no exaggerated picture; on the contrary, we know that the fact is underrated in this statement. Under the heads Remittent and Continued Fevers, Apoplexy, Meningitis, Pneumonia, Peritonitis and Enteritis many deaths appear, which would have appeared as Enteric Fever had the diagnosis been more accurate.

Its nature and natural alliances may be inferred from the various phases in which I have exhibited the statistics, as related to age, to acclimatisation, to season, and to locality. In a physiological aspect, the infarction which appears to determine the character and duration of the fever is one and the same phenomenon, under whatever circumstances the fever may occur. The cause of the infarction need not necessarily be one and the same. I am prepared to find in India manifestations of the fever susceptible of different explanations as to their origin; and the exclusive views now popular in England are not such as commend themselves to the Indian observer; who, while admitting that the observation of home authorities may be correct, does not feel himself bound down to the limits which seem to have been prescribed, and is compelled to conclude that, when so restricted, the mark is overshot and many cases of Enteric Fever represented as attributable to purely local causes on insufficient grounds.

To complete the table showing the causes of death in the young and unacclimatised, I append the details of the deaths entered above under the head "All other Diseases."

Deaths under 25, entered above under the heading "All other Diseases."

Erysipelas	5	Ulcer of Stomach	1
Pyæmia	2	Peritonitis and Enteritis	21
Diphtheria	4	Spleen Disease	4
Scarlet Fever (imported)	3	Cirrhosis and Degeneration of Liver	2
Smallpox	12	Rupture of Gall Bladder	1
Hydrophobia	3	Gastric Tumour	1
Syphilis	5	Kidney Disease	10
Scurvy	3	Disease of Mastoid Cells	4
Anæmia	1	Degeneration of Knee-joint	1
Tabes Mesenterica	5	Caries of Vertebræ	1
Cancer	7	Iliac and Psoas Abscess	11
Meningitis, Encephalitis	20	Not ascertained, &c.	3
Epilepsy	1		141
Tetanus (after injection of quinine)	3		
Delirium Tremens	1		
Pericarditis	3		
Embolism	2		

Statistics of First Five Years of Indian Service.

Numbers required to make good the Loss in Five Years by death and invaliding.

To make good the loss by death and invaliding, I showed in a former report that in five years after landing in India, recruits equal to 36 per cent. of the original strength had been required to maintain the body of 13,000 men whose statistics were available. Out of a strength maintained approximately at 13,361, 1,923 died and 2,822 were invalided in five years of Indian Service.

Thirteen regiments which came to India in 1869, 1870, 1871 and 1872 maintained during the first five years a strength of 11,507. They lost in all 3,086 men, 963 by death and 2,123 by invaliding. Recruits, equal in number to 27 per cent., were required to keep up these regiments at the full strength.

The proportion of deaths to invaliding was in the first period 15 to 21; out of the 36 lost, 15 died and 21 were invalided. In the second period, out of a loss of 26·9, 8·4 were deaths and 18·5 were men invalided.

The great diminution in the number of deaths from cholera is one of the chief causes of the improvement in the death-ratio which characterises the statistics of the later years.

Loss varies much with circumstances and locality. Illustration.

Taking the regiments individually, the loss fluctuates greatly. It is determined at one time to a minimum by favourable location and a succession of healthy years; and at another to a maximum, by the prevalence of epidemic influences, or by the occupation of a bad station, or by both combined, as very frequently happens.

I need not show the details year by year for these regiments. The tables which follow, giving the ratios of mortality throughout the course of their Indian service for regiments which have served out their time, sufficiently illustrate this point.

Aggregating the statistics of the five years, these are the results. The loss varies from 13 to upwards of 30, the good influences of Poona and Ferozepore helping chiefly to determine the smaller ratio, and the evil influences of Cawnpore, Lucknow, and Peshawar the latter.

Loss in the First Five Years by Death and Invaliding of Thirteen Regiments which came to India from 1869 to 1872.

Regiment.	Stations.	Strength.	Deaths.	Invalids.	Death and Invaliding.
1—14th	Cawnpore and Fort William . . .	827	70	250	320
62nd	Lucknow and Dum-Dum . . .	828	144	161	305
70th	Rawalpindi, Peshawar, and Nowshera .	881	97	208	305
1—17th	Lucknow and Peshawar . . .	878	103	181	284
89th	Cannanore, Bangalore and Madras . .	914	57	210	267
72nd	Umballa, Peshawar, and Nowshera . .	884	49	216	265
54th	Jullundur and Morar	901	85	162	247
68th	Poona, Mhow, and Nusseerabad . .	897	49	173	222
63rd	Hazaribagh and Jhansi	909	64	148	212
44th	Kamptee and Secunderabad . . .	836	53	158	211
65th	Agra and Lucknow	928	87	99	186
39th	Ferozepore, Peshawar, and Nowshera .	910	62	69	131
56th	Poona and Kurrachee	914	43	88	131
	TOTAL . .	11,507	963	2,123	3,086

LOSS OF REGIMENTS THROUGHOUT THEIR TOUR OF INDIAN SERVICE.

Loss of Regiments in the course of their tour of service.
Illustration of excessive loss—Her Majesty's 36th Regiment.

I have chosen the statistics of six regiments which went Home between 1873 and 1876, to depict the vicissitudes incident upon a tour of service in India extending over a period of from 9 to 13 years.

Of these some have been fortunate, others unfortunate. In 12 years, the 36th Regiment required, to keep up its efficiency, recruits equal to the entire strength, 852 men having disappeared, 330 by death, and 522 by invaliding. Four outbreaks of cholera lost to this regiment 167 lives, one-half of the total mortality of the period. In its first year, it lost by death 64 men; in the second 6. In its fourth year it was a second time attacked by cholera and 24 men died; but leaving out this casualty, in the second, third, fourth and fifth years its loss by death averaged 8 annually, 31 men only having died in the course of the four years. In the succeeding seven years, the average loss was 14, after deducting 116 cholera deaths.

Great sickness in five seasons led to heavy invaliding. In the first year, at Lucknow, the admission-rate per 1,000 was 2,361, and 56 men were invalided; in the sixth year, the regiment was considered sufficiently healthy to warrant its being stationed at Peshawar, where the admission-rate rose to 3,034; and even after removal in the following year to Rawalpindi, 2,285 per 1,000 of the strength went through the hospital, and 107 invalids were sent to England. A third season at Rawalpindi brought down the admission-rate to 772, one-third of what it was in the year subsequent to removal from Peshawar, and the general healthiness of the regiment seems to have occasioned its relief to Mecan Meer. Great sickness followed. The admission-rate rose from 772 to 2,725, and 122 invalids were compelled to leave India. The regiment spent its last year in the hills, when its admission-rate sank to 870.

Such a history is of little use towards fixing what is a normal average of loss in the course of an Indian career. I take, therefore, the statistics of the second regiment, which passed the same period of 12 years, which I regard as having run a fair risk throughout, and to have been in no way exceptionally dealt with.

Illustration of average loss—Her Majesty's 1-11th Regiment.

The 1-11th Regiment lost 39 men in five outbreaks of cholera, 128 men less than the 36th, from this special cause of mortality. Otherwise the mortality of both regiments was almost identical, 158 deaths having occurred in the 1-11th, and 163 in the 36th. Besides 11 cholera deaths, 63 men died in the first and second seasons; in the third and fourth, excluding cholera, 13 deaths only occurred. In three years subsequent to removal from Fyzabad, and while stationed at Morar, the total loss was 48, including 7 cholera deaths. The last four years were spent two at Subathoo and two at Jubbulpore, and in these four seasons only 25 men were lost by death, an annual average of 6.

The average number invalided annually was 31. This was the exact average for the five years spent at Fyzabad. Three years' residence at Morar cost the regiment an average loss of 43 annually; but this was reduced to 21 in the last four years of service at Subathoo and Jubbulpore.

The sickness was excessive in one year only. In the last three years at Fyzabad the maximum admission-rate per 1,000 was 956; in the first year at Morar it rose to 1,785, and in the second to 2,453; and 102 men were invalided as a consequence. At Subathoo it declined to 862 in the first year and to 661 in the second, and at Jubbulpore it averaged 1,060.

This example may be taken as typical. Any regiment may have a similar experience, and the results will not be very different from those here shown.

Statistics of six regiments during Indian service, extending over from 9 to 13 years; shown year by year, and the aggregate loss during the period.

This is the aggregate loss of the six regiments of which the details are given year by year in the following table:

Regiment.	Years in India.	Total Loss.	Loss by Invaliding.	Loss by Death.	Died from Cholera
58th	9 years	572	329	243	94
41st	9 years	517	377	140	21
36th	12 years	852	522	330	167
1—11th	12 years	566	369	197	39
55th	13 years	668	390	278	44
2—12th	13 years	699	463	236	32

Table showing the Annual Experience, throughout the course of their Indian Service, of Six Regiments which left India from 1873 to 1877.

1-11TH REGIMENT.

Year.		Station.	Strength.	Deaths.	Invalids.	Hospital admissions.	Average number of days spent in Hospital by each man.	Ratio per 1,000 Death.	Invaliding.	Hospital admissions.
Year of arrival	1865	Fyzabad	838	54*a*	33	1,265	...	64·44*a*	39·38	1510·0
2nd year	1866	„	842	20	29	947	...	23·75	34·44	1120.0
3rd „	1867	„	804	9*b*	29	618	...	11·20*b*	36·07	770·0
4th „	1868	„	799	10*c*	21	752	...	12·52*c*	26·28	941·2
5th „	1869	„	843	31*d*	43	806	...	36·77*d*	51·01	956·1
6th „	1870	Morar	852	21	47	1,521	23·1	24·65	55·16	1785·2
7th „	1871	„	843	11	55	2,068	30·7	13·05	65·24	2453·1
8th „	1872	„	888	16*e*	28	1,342	18·1	18·02*e*	31·53	1511·3
9th „	1873	Subathoo	908	9	27	783	17·0	9·91	29·74	862·3
10th „	1874	„	885	5	19	585	13·7	5·65	21·47	661·0
11th „	1875	Jubbulpore	876	6	31	844	15·6	6·85	35·39	963·5
12th „	1876	„	814	5	7	944	15·3	6·14	8·60	1159·7
				197	369					

Additions required to maintain the Strength . . 566

a 11 cholera deaths. *b* 3 cholera deaths. *c* 3 cholera deaths. *d* 15 cholera deaths. *e* 7 cholera deaths.

58TH REGIMENT.

Year of arrival	1865	Benares	773	43*a*	33	1,945	...	55·63*a*	42·69	2520·0
2nd year	1866	„ }	780	15*b*	41	1121	...	17·95*b*	52·56	1437·2
3rd „	1867	„ }*	778	8	19	865	...	10·28	24·42	1111·8
4th „	1868	„ }	706	9	26	827	...	12·75	36·83	1171·2
5th „	1869	Allahabad	661	122*c*	87	1,906	...	288·35*c*	184·57	1316·2
6th „	1870	Sialkot	621	13	29	1,191	23·4	20·93	46·70	1917·9
7th „	1871	„	742	10	48	892	17·2	13·48	64·69	1202·2
8th „	1872	„	851	14	46	1,403	18·8	16·45	54·05	1648·6
9th „	1873	Nowshera	886	9	...	1,657	14·9	10·16	Took	1870·2
					243	329				home its invalids.

Additions required to maintain the Strength . . 572

a 9 cholera deaths. *b* 4 cholera deaths. *c* 81 from cholera.

* The head-quarters, 437 strong, were removed to Darjeeling in 1866, and lost in the three years 1866-68 five men in all.

36TH REGIMENT.

Year of arrival	1864	Lucknow	848	64*a*	56	2,002	...	75·47*a*	66·04	2360·9
2nd year	1865	Shahjehanpore and Moradabad.	754	6	29	1,125	...	7·96	38·46	1492·0
3rd „	1866	„	786	8	43	1,090	...	10·18	54·71	1386·2
4th „	1867	„	818	33*b*	54	1,242	...	40·34*b*	66·01	1518·3
5th „	1868	Peshawar.	727	8	38	1,387	...	11·00	52·27	1907·8
6th „	1869	„	728	125*c*	26	2,209	...	171·70*c*	35·71	3034·3
7th „	1870	Rawalpindi	712	17	81	1,627	26·7	23·88	113·76	2285·1
8th „	1871	„	738	10	39	989	19·1	13·55	52·85	1340·1
9th „	1872	„	913	17*d*	26	705	11·0	18·62*d*	28·48	772·2
10th „	1873	Meean Meer and Solon.	909	20	83	2,477	23·8	22·00	91·31	2725·0
11th „	1874	„	843	13	39	1,860	22·6	15·42	46·26	2206·4
12th „	1875	Subathoo	676	9	8	588	13·3	13·31	11·83	869·8
				330	522					

Additions required to maintain the Strength . . 852

a 27 cholera deaths.
b 24 cholera deaths.
c 111 cholera deaths.
d 5 cholera deaths at Murree.

55TH REGIMENT.

Year.	Station.	Strength.	Deaths.	Invalids.	Hospital admissions.	Average number of days spent in Hospital by each man.	Ratio per 1,000. Death.	Invaliding.	Hospital admissions.
Year of arrival 1864	Hazaribagh.	791	30	7	968	...	37·93	8·85	1223·8
2nd year 1865	Dum-Dum*	988	58*a*	47	1,915	...	58·70*a*	47·57	1940·0
3rd „ 1866	Lucknow.	880	24	30	1,084	...	27·27	34·09	1230·0
4th „ 1867	„	874	15*b*	33	1,086	...	17·16*b*	37·76	1240·0
5th „ 1868	„	877	12	24	1,004	...	13·68	27·37	1144·8
6th „ 1869	Chakrata	927	18	35	773	...	19·42	37·76	833·9
7th „ 1870	„	883	16	20	811	15·5	18·12	22·65	918·5
8th „ 1871	„	870	8	20	590	10·3	9·20	22·99	678·2
9th „ 1872	Peshawar and Cherat.	880	36*c*	31	2,424	20·1	40·91*c*	35·23	2754·5
10th „ 1873	„	820	20	28	1,891	21·6	24·39	34·15	2306·1
11th „ 1874	Roorkee and Delhi	870	14	41	1,385	19·4	16·09	47·13	1592·0
12th „ 1875	„	836	20*d*	56	1,208	19·8	23·92*d*	66·98	1445·0
13th „ 1876	Aden	524	7	18	374	13·0	13·36	34·35	713·7
			278	390					
Additions required to maintain the Strength .			. 668						

a 18 cholera deaths. *c* 21 cholera deaths. * And for a short time in Bhootan
b 2 cholera deaths. *d* 3 cholera deaths.

41ST REGIMENT.

Year of arrival 1866	Agra	802	23*	25	1,282	...	28·68	31·17	1600·0
2nd year 1867	„	852	12*	38	1,141	...	14·09	44·60	1340·0
3rd „ 1868	„	847	8	47	809	...	9·45	55·49	955·1
4th „ 1869	Subathoo	842	36*a*	56	1,081	...	42·75*a*	66·51	1283·8
5th „ 1870	„	863	9	32	654	13·3	10·43	37·08	757·8
6th „ 1871	Mooltan	882	16	45	851	15·2	18·14	51·02	964·9
7th „ 1872	„	880	19*	68	1,362	18·1	21·59	77·27	1547·7
8th „ 1873	„	813	16	66	1,253	25·6	19·68	81·18	1541·2
9th „ 1874	Aden	580	1	...	507	9·7	1·72	Took home its invalids.	874·1
			140	377					
Additions required to maintain the Strength .			. 517						

a 16 cholera deaths. * 1866, 1867 and 1872 lost 5 men in all from cholera

2-12TH REGIMENT

Year of arrival 1865	Seetapore and Rai Bareilly.	838	19	38	1,151	...	22·67	45·35	1373·8
2nd year 1866	„	869	9	49	895	...	10·38	56·39	1030·0
3rd „ 1867	„	853	18	47	647	...	21·10	55·10	758·5
4th „ 1868	Jubbulpore	808	18*a*	59	932	...	22·28*a*	73·02	1153·5
5th „ 1869	„	738	5*b*	32	1,393	...	67·75*b*	43·36	1887·5
6th „ 1870	„	803	28	80	1,940	32·1	34·87	99·63	2415·9
7th „ 1871	Subathoo	840	10	30	768	16·1	11·90	35·71	914·3
8th „ 1872	„	913	8	13	778	15·7	8·76	14·24	852·1
9th „ 1873	Ferozepore	930	20	29	790	19·4	21·51	31·18	849·5
10th „ 1874	„	869	17	35	957	23·2	19·56	40·28	1101·3
11th „ 1875	„	872	17*c*	16	693	14·9	19·50*c*	18·35	794·7
12th „ 1876	Fort William	887	10*d*	27	688	16·7	11·27*d*	30·44	775·6
13th „ 1877	„	800	12*e*	8	544	17·6	15·00*e*	...	680·0
			236	463					
Additions required to maintain the Strength .			699						

a 9 cholera deaths
b 13 cholera deaths.
c 5 cholera deaths
d 2 cholera deaths.
e 3 cholera deaths, 2 suicidal deaths and 3 accidental deaths ; 4 deaths only from climatic disease.

LOSS IN THE COURSE OF A TOUR OF INDIAN SERVICE AMONG THE MEN WHO LANDED WITH THEIR REGIMENTS.

The number lost by death and invaliding among the men who landed in India with their Regiments, illustrated by 42 examples.

Such is the loss which Regiments maintained at an efficient strength experience. If Regiments were not recruited, and if the men who came from England diminished in number year by year by death and invaliding, the proportion of the original body likely to be removed during the tour of Indian service is indicated in this

statement, which gives the experience of 42 Regiments whose tour of Indian service extended over a period of from 8 to 14 years. For Regiments over 10 years' service, the loss shown is 48 per cent., which seems a normal average. In some of the old Indian Regiments the loss shown is much in excess of this; but the increased ratio is probably owing to all the men present, and who had already served for a longer or shorter period when these Regiments were reorganized, being reckoned as the original soldiers of the Regiment, many of whom were in the natural course of events early removed.

Statement showing the Loss in the course of Indian Service of the Original Body of Men who constituted the Regiment on arrival in India.

LOSS PER CENT. OF THE MEN WHO LANDED WITH THE REGIMENT.

Regiment.	Years in India.	By Death.	By Invaliding.	Total.
3-60th Regiment	15 years	16	23	39
23rd Brigade, Royal Artillery	14 years	16	27	43
1-19th Regiment		26	30	56
38th ,,		27	23	50
79th ,,		25	27	52
107th ,,		34	33	67
108th ,,		17	26	43
3rd Battalion, Rifle Brigade		28	14	42
1-7th Regiment	13 years	12	25	37
2-19th ,,		16	27	43
55th ,,		19	24	43
88th ,,		27	22	49
95th ,,		15	21	36
105th ,,		14	21	35
D. Brigade, Royal Horse Artly.	12 years	16	16	32
14th Brigade, Royal Artillery		30	24	44
2nd Dragoon Guards		26	18	54
7th Hussars		32	17	49
1-11th Regiment		17	27	44
36th ,,		26	39	65
76th ,,		13	36	49
77th ,,		36	19	55
82nd ,,		27	25	52
93rd ,,		26	22	48
A. Brigade, Royal Horse Artly.	11 years	13	33	46
16th Brigade, Royal Artillery.		19	19	38
5th Lancers		22	24	46
16th ,,		13	28	41
18th Hussars		23	38	61
21st ,,		24	39	63
106th Regiment		42	32	74
20th Hussars	10 years	13	30	43
104th Regiment		15	21	36
26th ,,	9 years	12	29	41
41st ,,		12	31	43
49th ,,		9	17	26
58th ,,		19	26	45
2-10th Regiment	8 years	9	20	29
2-25th ,,		7	22	29
37th ,,		17	25	42
96th ,,		19	31	50
2-24th ,,	7 years	9	12	21

How a body originally 15,529 strong, representing 23 Regiments and Brigades of Artillery, was reduced in the course of Indian service to 3,554.

The final statement shows how a body of 15,529 men, who came to India with their regiments, melted down, until, out of the whole, 3,554 only went on board ship with the regiments, on their return to England.

These were the survivors out of 23 regiments which left India in the past six years; seventy-seven per cent. had disappeared. Thirty-one per cent. had been discharged time-expired, had volunteered into other regiments, had purchased their discharge, had deserted or been removed by sentence of Court-martial; of the remaining 46 per cent. of loss, 18 was made up by deaths and 28 by invaliding. This loss of 46 per cent. approaches nearly to the standard of the preceding table, namely, 48 per cent., of which 22 was due to deaths and 26 to invaliding.

Statement showing the Loss from all Causes and from Death and Invaliding, in Twenty-three Regiments and Brigades of Artillery in the Course of their Tour of Indian Service, which occurred among the men who constituted the Regiment or Brigade on its arrival in India.

Regiments.	Years in India.	Strengths.			Causes of Loss.						Loss per 1,000 of Strength.	Loss per 1,000 from the Different Causes.				
		Present on Arrival in India.	Embarked for England.	To be accounted for.	Deaths.	Invaliding.	Time-expired.	Purchased their discharge.	Transfers.	Removed for other reasons or deserted.		Deaths.	Invaliding.	Time-expired.	Transfers.	Deserted or otherwise removed.
16th Brigade	11	719	178	541	134	140	58	14	188	7	732·43	186·37	194·71	80·67	261·47	29·21
21st Hussars	11	636	117	519	154	248	58	8	51	.....	816·04	242·14	389·94	91·19	80·19	12·58
58th Regiment	9	777	158	619	149	205	174	.....	83	8	706·65	191·76	263·83	223·94	106·82	10·30
96th ,,	8	579	121	458	112	181	90	3	72	.....	791·02	193·44	312·61	155·44	124·35	5·18
105th ,,	13	670	97	573	96	139	178	10	117	33	855·22	143·28	207·46	265·67	174·63	64·18
106th ,,	11	490	89	401	206	159	24	3	9	.....	818·37	420·41	324·49	48·98	18·37	6·12
5th Lancers	11	513	187	326	111	126	26	9	54	.....	635·48	216·38	245·61	50·68	105·26	17·55
26th Regiment	9	846	317	529	103	242	83	3	60	38	625·30	121·75	286·05	98·11	70·92	48·47
37th ,,	8	699	200	499	122	178	121	6	72	.....	713·88	174·54	254·65	173·11	103·09	8·58
41st ,,	9	799	286	513	100	245	55	2	101	10	642·05	125·16	306·63	68·83	126·41	15·02
49th ,,	9	883	306	527	79	140	118	8	167	15	632·66	94·84	168·07	141·66	200·48	27·61
23rd Brigade	14	385	50	335	61	104	48	9	99	14	870·13	158·44	270·13	124·68	257·14	59·74
18th Hussars	11	495	116	379	116	187	39	9	28	.....	765·66	234·34	377·78	78·79	56·57	18·18
2-25th Regiment	8	850	266	584	63	189	173	2	131	26	687·06	74·12	222·35	203·53	154·12	32·94
36th ,,	12	865	131	724	222	334	110	4	56	.....	838·93	257·24	387·02	127·46	64·89	2·32
76th ,,	12	858	151	707	116	308	152	3	65	63	824·01	135·20	358·98	177·15	75·76	76·92
107th ,,	14	490	60	430	165	162	65	15	23	.....	877·55	336·74	330·61	132·65	46·94	30·61
A. Brigade	11	728	128	600	96	239	60	10	192	3	824·18	131·87	328·30	82·42	263·73	17·86
16th Lancers	11	499	134	365	66	141	96	13	40	9	731·46	132·26	282·57	192·38	80·16	44·09
1-11th Regiment	12	843	169	674	147	228	182	.....	99	18	799·53	174·38	270·46	215·90	117·44	21·35
2-19th ,,	13	839	145	694	138	226	240	22	49	19	827·17	164·48	269·37	286·05	58·40	48·87
55th ,,	13	913	140	773	173	222	288	5	85	.....	846·66	189·49	243·15	315·44	93·10	5·48
108th ,,	14	213	8	205	36	56	97	.....	14	2	962·44	169·01	262·91	455·40	65·73	9·39
Total		15,529	3,554	11,975	2,765	4,399	2,535	156	1,855	265	771·14	178·06	283·28	163·24	119·45	27·11

CHAPTER IV.

THE WOMEN AND CHILDREN OF THE ARMY OF INDIA.

Strength of women and children attached to the Army of Bengal, 1860—76.

During the seventeen years, from 1860 to 1876, the women and children of the Army of Bengal have been steadily on the increase. The women of the Army of Bengal were, in 1860, only 2,080 strong, and year by year the number increased, until, in 1867, the body numbered 3,000; and for the past eight years the strength has averaged 3,750.

The children of the Army of Bengal were, in 1860, a body numbering 3,186; in 1867 and 1868 the numbers rose to 5,000; and in 1874 and 1875 they had still further increased to 7,000.

In this period 1,941 women died, and 7,503 children.

Death-rates of the women and children compared in the two periods, 1860—69 and 1870—76.

Taking the results of 1860—69, the ten-year period which I have aggregated as a standard for the men of the Army of Bengal, the women lost on an average 43·28 per 1,000 of their strength annually, the maximum of the period being 68·03 and the minimum 25·46.

Both of these ratios were exceptional, and the mean of the ten years may be accepted as a normal average. Excluding the cholera ratio of 12·16 per 1,000, the average is 31·12.

In the seven years subsequent to 1869, the ratio diminished to 29·21, or, without cholera, to 24·47.

In the period 1860—69, the children died at the rate of 94·90 per 1,000; and during the period 1870—76, the annual loss was 77·73 per 1,000. The cholera-ratio was in the former period 11·50, and in the latter 4·26 per 1,000.

The death-rate for women as compared with that of the men. The components of the two ratios contrasted.

The conditions peculiar to women, and circumstances inseparable from compulsory residence in India, seem to determine in their case a death-rate much above that normal for the men. For men the death-rate of 1860—69 was 29·98: 13 per 1,000 in their favour as compared with the death-rate of the women. For the same years, the cholera-ratio for the men was 9·24, against 12·16 for the women.

In the Army of India, and in the period under review, while the ratio of 1871—75 for the men was 15·91 per 1,000, excluding violent deaths, for the women it was 9 in excess, or 25 per 1,000.

The details of these ratios for the two periods, and contrasting the results for the men and women, are given below:—

Death-rates per 1,000 of Strength of the Men and the Women, contrasted on the results of 1860—69 and 1871—75.

Causes of Death.	Army of Bengal, 1860—69.		Army of India, 1871—75.	
	Women.	Men.	Women.	Men.
Fevers	5·93	3·58	4·20	2·81
Heat Apoplexy	1·76	2·19	·77	1·35
Dysentery	8·64	3·47	4·20	1·43
Hepatitis	1·94	3·31	1·44	2·30
Phthisis Pulmonalis	3·70	1·73	3·07	1·24
Respiratory Diseases	1·10	·99	·89	·82
Heart Disease	·66	1·01	·73	1·34
Anæmia and Debility	1·02	...	·98	2·08
All other Causes	3·04	3·14	2·16	
Violent Deaths	·15	1·32	·20	1·71
Diseases of Child-birth	3·18	...	2·79	...
Cholera	12·16	9·24	3·77	2·54
Death-rate per 1,000	43·28	29·98	25·20	17·62

Deaths from violence occupy a very unimportant place in the statistics of women; accidental and suicidal deaths are nine times more numerous among the men. The soldier dies in a higher ratio from heat apoplexy, heart disease, and hepatitis, and this is conspicuous in both statements; in respect to all other diseases, the ratios for women are excessive, and most notably so in the case of dysentery and phthisis.

The death-rates, both of women and children, of recent years have been very favourable, and cannot be expected to be much lower in the future.

In the last four years especially, the ratios for both women and children have been low in comparison, and if permanently maintained in the future such an average may be considered satisfactory. That it will go much lower, circumstances remaining the same, is scarcely to be hoped for.

Army of Bengal—Died per 1,000.

	Women.			Children.		
	All causes.	Cholera.	Excluding cholera.	All causes.	Cholera.	Excluding cholera.
1860-69 . .	43·28	12·16	31·12	94·90	11·50	83·40
1870 . .	32·68	3·69	28·99	81·68	1·59	80·09
1871 . .	28·53	2·45	26·08	86·11	1·00	85·11
1872 . .	46·12	15·89	30·23	112·95	16·61	96·34
1873 . .	22·81	1·04	21·77	67·97	·74	67·23
1874 . .	20·69	·26	20·43	61·56	·29	61·27
1875 . .	30·63	7·25	23·38	76·67	7·27	69·40
1876 . .	22·87	2·29	20·58	59·83	1·82	58·01
1870—76 . .	29·21	4·74	24·47	77·73	4·26	73·47

Summary of the death-statistics of 1860—69 of the women and children of the Bengal Army, for comparison with the standard of 1871—75 which follows.

For the sake of comparison with the general tables for 1871-75 which follow, I prefix a summary of the death-statistics of women and children of the Army of Bengal for the ten years, 1860—69 :—

DEATHS OF THE WOMEN OF THE ARMY OF BENGAL DURING THE TEN-YEAR PERIOD, 1860—69.

Year.	Strength.	Total Deaths.	Fevers.	Apoplexy.	Dysentery.	Hepatitis.	Phthisis.	Respiratory Diseases.	Heart Diseases.	Anemia.	All other Causes.	Diseases of Childbirth.	Violent Deaths.	Cholera.	Died per 1,000	
															All Causes.	Cholera.	All Causes excluding Cholera.
1860	2,080	117	16	6	20	5	8	9	...	1	8	6	...	38	56·25	18·27	37·98
1861	2,293	156	18	6	23	5	12	3	...	2	15*	8	...	64	68·03	27·91	40·12
1862	2,307	99	7	2	21	5	4	3	2	4	6	5	...	40	41·30	16·69	24·61
1863	2,510	88	8	1	25	3	11	2	...	3	5	11	...	19	35·06	7·57	27·49
1864	2,709	101	15	3	23	5	10	1	...	3	9	11	...	19	37·28	7·04	30·24
1865	2,738	115	25	7	33	6	4	2	3	4	7	9	1	16	42·00	5·84	36·16
1866	2,789	71	5	2	16	3	12	1	3	4	6	8	1	10	25·46	3·58	21·88
1867	3,008	139	16	3	28	5	10	2	...	5	5	7	...	58	46·21	19·28	26·93
1868	3,196	101	17	6	20	9	14	1	2	1	10	10	2	9	31·60	2·82	28·78
1869	3,602	195	35	12	27	7	16	6	7	3	12	12	...	59	54·14	16·38	37·76
1860—69	27,313	1,182	162	48	236	53	101	30	18	28	83	87	4	332 }	43·28	12·16	31·12
Died per 1,000		43·28	5·93	1·76	8·64	1·94	3·70	1·10	·66	1·02	3·04	3·18	·15	12·16 }			

DEATH-RATE FOR THE MEN OF THE ARMY OF BENGAL FOR THE SAME PERIOD.

Died per 1,000	29·99	3·38	2·19	3·47	3·31	1·73	·99	1·01	...	3·14	...	1·32	9·24		29·98	9·24	20·74

DEATH-RATES OF THE MEN AND WOMEN OF THE ARMY OF BENGAL OF 1871—75 CONTRASTED.

Death-rate for women . .	29·74	5·32	·74	4·75	1·69	3·32	1·05	·95	1·21	2·11	3·06	·16	5·38		29·74	5·38	24·36
Death-rate for men . .	18·50	3·22	1·33	1·24	2·05	1·25	1·06	1·27	...	2·17	...	1·68	3·22		18·50	3·23	15·27

DEATHS OF THE CHILDREN OF THE ARMY OF BENGAL DURING THE TEN-YEAR PERIOD, 1860—69.

Year.	Strength.	Total Deaths.	Dysentery and Diarrhœa.	Convulsions.	Atrophy.	Dentition.	Fevers.	Cholera.	Bronchitis and Pneumonia.	Measles.	Tabes Mesenterica.	Meningitis.	Croup.	Hooping Cough.	All other Causes.	Died per 1,000. All Causes.	Cholera.	All Causes excluding Cholera.
1860	3,186	337	78	46	22	11	35	66	5	19	7	13	7	1	17	102·64	20·72	81·92
1861	3,079	283	55	25	18	16	38	94	9	1	7	2	3	...	15	91·91	30·53	61·38
1862	3,466	310	81	43	16	25	36	45	19	2	13	11	9	4	6	91·02	13·21	77·81
1863	3,730	291	77	42	31	23	34	14	10	1	11	8	11	1	23	78·02	3·75	74·27
1864	4,120	294	81	29	23	34	34	18	17	18	7	12	8	1	9	71·36	4·37	66·99
1865	4,221	351	92	45	31	38	62	16	19	2	9	8	6	4	18	83·15	3·79	79·36
1866	4,367	328	88	35	29	39	46	12	15	12	8	9	10	4	21	75·11	2·75	72·36
1867	4,888	513	134	58	40	45	54	94	14	5	20	17	6	3	23	104·95	19·23	85·72
1868	5,052	438	103	73	47	38	57	13	16	9	20	24	11	8	19	86·70	2·57	84·13
1869	5,688	826	192	96	70	102	96	106	28	18	34	16	18	3	45	145·22	18·99	126·23
1860—69	41,737	3,961	981	492	330	374	492	480	152	87	126	120	89	32	182 }	94·90	11·50	83·40
Average annual loss per 1,000		94·90	23·50	11·80	7·90	8·96	11·80	11·50	3·64	2·08	3·36	2·87	2·13	·77	4·62 }			
Average death-rate of 1871—75		80·61	19·30	11·03	8·96	7·11	7·02	5·19	4·38	3·24	3·12	2·31	2·37	·99	5·34	80·61	5·19	75·42

*(7 smallpox.)

WOMEN OF EUROPEAN REGIMENTS, 1871—75.

Table showing the Aggregate of the Sickness and Mortality among the Women of the European Regiments composing the Army of India during the Years from 1871 to 1875, and the Prevalence of the Principal Diseases in each Month.

Months.	Aggregate Strength of the five years.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths in the five years.	Death-rate per 1,000 of Strength.	Causes of Deaths. Cholera.	Enteric Fever.	Remittent and continued Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Phthisis Pulmonalis.	Respiratory Diseases.	Heart Diseases.	Anæmia and Debility.	Child-birth.	All other Causes.
January	32,694	858	26·7	51	...	1	2	2	...	12	4	7	4	1	3	8	7
February	32,597	828	25·4	38	...	...	1	8	...	3	1	3	4	2	1	11	4
March	32,933	936	28·4	45	...	1	2	4	1	4	1	7	4	2	4	12	3
April	33,030	1,174	35·5	59	...	3	1	7	2	10	4	7	2	2	3	9	2
May	32,933	1,392	42·3	76	...	13	2	6	5	9	4	11	3	2	5	5	11
June	32,859	1,505	45·8	68	...	2	3	10	15	10	6	6	...	3	2	3	8
July	32,810	1,592	48·5	73	...	13	2	12	1	10	2	11	1	3	2	8	4
August	32,661	1,760	53·9	102	...	35	3	6	...	22	6	15	2	1	1	3	8
September	32,527	1,794	55·2	112	...	36	6	18	1	13	5	13	1	5	2	6	6
October	32,250	1,488	46·1	67	...	9	3	13	...	12	4	8	3	2	3	5	5
November	32,611	1,166	35·8	70	...	7	...	9	...	18	5	5	3	1	2	14	6
December	32,153	876	27·2	61	...	3	2	15	...	10	5	7	2	...	4	7	6
						123	27	110	25	137	47	100	29	24	32	91*	77
						Died per 1,000 of the Average Strength.											
Five years, 1871—75	32,021	1,281	39·3	822	25·20	3·77	·83	3·37	·77	4·20	1·44	3·07	·89	·73	·98	2·79	2·36

Causes of Admissions.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total Admissions of the five years.	Admitted per 1,000 of Strength.	Died out of each hundred treated.
Cholera	1	...	3	4	20	4	22	51	47	14	10	2	178	5·5	69·1
Intermittent Fevers	270	221	295	383	463	580	547	640	757	917	653	420	6,146	188·4	1·1
Remittent and Continued Fevers	121	139	184	359	432	484	436	385	464	403	287	186	3,871	118·7	
Enteric Fever	5	2	2	4	6	4	2	7	8	3	2	3	48	1·5	56·2
Apoplexy	1	.....	3	3	10	20	5	1	1	4	1	.....	49	1·5	51·0
Dysentery	64	42	70	90	73	100	133	157	141	106	90	73	1,139	34·9	4·3
Diarrhœa	71	81	111	171	195	156	303	341	262	157	126	111	2,026	62·1	
Hepatitis	29	52	33	65	67	70	60	62	62	58	45	55	658	20·2	7·1
Spleen Disease	4	2	8	8	5	7	9	11	10	14	2	6	86	2·6	.....
Respiratory Diseases	127	89	100	132	96	69	95	86	82	97	98	101	1,172	35·9	2·4
Phthisis Pulmonalis	25	29	36	23	38	28	32	35	23	17	25	29	331	10·2	30·2
General Debility	361	339	494	640	686	692	717	792	740	566	449	371	6,847	209·9	·4
Rheumatism	51	49	45	70	70	51	66	64	62	45	37	28	638	19·5	.....
Eye Diseases	34	18	38	118	179	151	406	469	365	214	98	41	2,131	65·3	.....
Abortion	36	55	64	62	75	71	66	55	62	42	43	42	673	20·6	1·4
Diseases peculiar to women	82	85	110	112	117	120	123	122	112	98	70	56	1,297	37·0	2·6
Abscess and Ulcer	73	42	60	79	79	96	101	93	84	67	34	50	858	26·3	
Injuries	25	23	29	37	35	38	34	42	17	22	31	16	349	10·7	
All other Causes	246	231	317	449	395	414	516	499	486	373	275	228	4,429	135·8	
	1,626	1,481	2,002	2,869	2,982	3,155	3,673	3,912	3,785	3,217	2,376	1,818	32,836		
	Admitted per 1,000 of the Average Strength in each Month.														
	50·7	45·4	60·8	85·0	90·6	96·0	111·9	119·8	116·4	99·8	72·9	56·5	1006·6		

* Returned thus: Child-birth, 23; Abortion, 11; Metritis and Peritonitis, 30; Puerperal Fever, 13; Hæmorrhage, 8; Retained Placenta, 2; Pyæmia, after operation, 1; Phlegmasia Dolens, 1; Puerperal Mania, 1; Convulsions, 1.

Comparative Statement showing the Ratios of Sickness and Mortality among the Women of the Regiments composing the Army of India in each year from 1871 to 1875, and for the Women of the Armies of the Three Presidencies on the Average of the Five-year period.

	RATIOS PER 1,000 OF STRENGTH.								
	ARMY OF INDIA, 1871—75.					AVERAGE OF THE FIVE YEARS, 1871—75.			
	1871.	1872.	1873.	1874.	1875.	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
I.—AVERAGE DAILY SICK-RATE OF EACH MONTH.									
January	25·7	24·0	27·3	25·1	31·7	26·7	29·5	22·4	23·5
February	23·7	28·2	24·6	23·1	27·5	25·4	27·5	21·9	23·3
March	32·1	26·4	31·5	21·0	31·4	28·4	30·8	23·8	26·6
April	37·5	35·8	39·1	30·3	35·1	35·5	40·1	26·3	32·5
May	48·8	44·2	42·4	34·5	41·6	42·3	49·0	30·9	35·4
June	50·4	46·2	44·2	41·5	46·9	45·8	54·1	31·7	37·1
July	56·6	48·0	42·3	47·4	48·5	48·5	55·7	36·3	41·0
August	58·1	63·9	43·6	49·7	54·3	53·9	62·8	37·9	45·8
September	53·4	68·1	50·2	* 46·2	57·9	55·2	66·3	35·2	45·0
October	46·1	54·3	39·8	41·6	49·1	46·1	54·0	31·7	39·3
November	36·1	38·9	39·4	36·3	38·0	35·8	41·8	25·1	30·5
December	26·4	28·3	24·7	29·0	27·7	27·2	31·0	20·9	23·4
Annual average	41·4	42·1	36·7	35·5	40·9	39·3	45·2	28·7	33·7
II.—ADMISSION-RATE OF EACH MONTH.									
January	69·2	52·6	46·7	44·3	50·0	50·7	49·0	54·1	51·8
February	52·7	51·4	44·4	40·0	38·8	45·4	44·9	46·7	45·6
March	70·4	57·1	54·2	53·1	70·2	60·8	59·3	62·4	63·6
April	86·6	99·3	94·0	67·9	76·9	85·9	94·7	65·3	79·1
May	129·9	97·8	76·1	80·5	77·7	90·6	101·8	75·4	74·2
June	103·6	98·5	83·7	88·0	107·0	96·0	108·9	73·9	83·1
July	112·3	127·8	101·8	122·4	94·5	111·9	120·9	95·8	103·9
August	136·4	144·5	93·1	101·9	123·5	119·8	135·3	89·3	108·7
September	89·5	145·7	127·9	108·3	109·4	116·4	134·6	82·9	100·6
October	96·7	147·7	85·2	83·5	85·2	99·8	112·3	74·4	91·4
November	66·5	79·8	62·2	72·6	83·3	72·9	81·0	55·6	68·9
December	52·6	62·7	55·5	62·7	48·6	56·5	59·7	51·0	53·4
Admission-rate of the year	1050·8	1164·1	925·3	926·7	965·3	1006·6	1103·3	826·3	927·3
III.—COMPOSITION OF THE ANNUAL ADMISSION-RATE.									
Cholera	3·0	15·0	1·1	·1	8·1	5·5	7·9	1·5	2·7
Intermittent Fever	218·8	192·8	167·9	174·0	189·6	188·4	217·1	55·9	259·1
Remittent and Continued Fevers	118·9	134·3	117·9	125·5	95·7	118·7	151·8	71·3	74·2
Enteric Fever	1·4	1·4	1·7	·9	2·1	1·5	1·6	1·5	1·0
Apoplexy	·9	2·9	1·3	·3	2·1	1·5	1·7	·7	1·8
Dysentery	39·6	41·9	34·2	28·5	30·1	34·9	36·1	38·5	27·1
Diarrhœa	57·6	78·3	55·1	51·3	68·2	62·1	71·7	46·6	51·5
Hepatitis	21·2	21·4	21·7	17·7	18·9	20·2	21·4	20·0	16·5
Spleen Disease	1·1	2·1	3·0	3·0	3·9	2·6	3·5	·5	2·6
Respiratory Diseases	42·3	33·4	34·7	41·5	27·6	35·9	36·3	35·4	35·5
Phthisis Pulmonalis	10·8	11·7	9·1	8·6	10·6	10·2	11·2	8·1	9·3
General Debility	213·2	231·7	156·3	186·5	225·6	209·9	224·8	237·8	131·5
Rheumatism	16·8	25·3	19·5	19·0	17·0	19·5	21·3	17·0	17·3
Eye Diseases	81·8	65·7	59·6	64·9	54·8	65·3	75·1	49·8	53·9
Abortion	24·4	20·9	19·0	19·0	19·9	20·6	22·5	16·7	19·8
Diseases peculiar to women	38·2	32·8	36·8	34·9	42·6	37·0	36·3	38·5	37·4
Abscess and Ulcer	26·0	26·0	25·2	29·7	24·5	26·3	27·4	24·9	24·6
Injuries	11·0	11·3	10·4	11·5	9·3	10·7	10·3	11·8	10·6
All other Causes	123·8	215·2*	113·8	109·8	114·7	135·8	125·3	149·8	150·9
Admission-rate of the year	1050·8	1164·1	925·3	926·7	965·3	1006·6	1103·3	826·3	927·3
IV.—COMPOSITION OF THE ANNUAL DEATH-RATE.									
Cholera	1·88	10·53	·91	·15	5·37	3·77	5·38	·94	2·25
Remittent and Continued Fevers	4·23	3·61	3·02	2·56	3·48	3·37	4·32	1·62	2·57
Enteric Fever	·63	1·05	·75	·61	1·10	·83	1·00	·67	·48
Apoplexy	·47	1·65	·60	·39	·79	·77	·74	·40	1·28
Dysentery and Diarrhœa	4·54	6·32	3·47	2·87	3·79	4·20	4·75	3·50	3·37
Hepatitis	1·56	1·35	1·36	1·81	1·10	1·44	1·69	1·08	1·12
Phthisis Pulmonalis	3·29	4·21	2·72	2·87	2·21	3·07	3·32	2·96	2·41
Respiratory Diseases	1·56	·39	·30	1·21	1·10	·89	1·05	1·08	·16
Heart Disease	·63	1·51	·60	·45	·47	·73	·95	.....	·97
Anæmia and Debility	·47	1·35	·45	1·06	·95	·98	1·21	·81	·48
Child-birth	2·51	2·71	2·42	3·02	3·31	2·79	3·06	2·02	2·89
All other Causes	2·35	1·95	3·32	1·96	2·21	2·36	2·27	2·29	2·73
Death-rate of the year	24·12	36·54	19·02	19·47	25·89	25·20	29·74	17·37	20·71

* Out of this, dengue gave a ratio of 98 per 1,000.

The components of the death-rate of children do not vary much from year to year, nor with locality. In the Army of Bengal, convulsions, dentition diarrhœa and atrophy account for 58 per cent. of all deaths; in the Army of Madras for 63 per cent., and in the Army of Bombay for 66 per cent. In the ten years, 1860—69, the proportion for the Army of Bengal was 55, or, excluding cholera, 63 per cent. Measles and hooping cough, croup and bronchitis, tabes and meningitis, and diseases grouped under the head of "All others" account for 27, 29 and 26 per cent. of the total in the Armies of Bengal, Madras and Bombay respectively.

The components of the death-rate of the children of the Armies of the three Presidencies compared.

Composition of 100 Deaths of Children in the Three Presidencies compared.

Bengal, 1860—69.		Bengal, 1871—75.		Madras, 1871—75.		Bombay, 1871—75.	
Diarrhœa and Dysentery.	24·8	23·9		Dysentery and diarrhœa.	21·7	Dysentery and diarrhœa.	22·8
Convulsions	12·4	13·8		Convulsions	17·6	Convulsions	21·7
Atrophy and Anæmia.	8·3	11·0		Dentition	12·2	Debility	12·7
Dentition	9·5	8·8		Debility	11·9	Dentition	9·1
Fevers	12·4	8·7		Bronchitis	5·8	Fevers	5·9
Cholera	12·1	6·5		Fevers	5·2	Bronchitis	4·6
Bronchitis	3·8	5·8		Meningitis	4·1	Tabes	4·6
Measles	2·2	4·0		Tabes	4·0	Meningitis	4·2
Tabes Mesenterica	3·4	3·9		Measles	3·9	Measles	3·1
Meningitis	3·0	2·9		Croup	3·9	Croup	2·2
Croup	2·3	2·9		Cholera	2·0	Cholera	2·1
Hooping Cough	·8	1·2		Hooping Cough	·5	Hooping Cough	·4
All other Diseases	5·0	6·6		All other Causes	7·2	All other Causes	6·6
	100·0	100·0			100·0		100·0
	55·0	57·5			63·4		66·3

The liability to death decreases with advancing years in a wonderful manner, and the ratio is most consistent taken year by year. The phenomenon is strikingly illustrated in this table, which gives the results for the Army of India in the years from 1871 to 1875, showing the liability to die declining year by year as the age increases, from 30 to 1.

Death-rates of the children of the different ages, showing the rapid decrease of the ratio as age progresses.

Liability to Death at Different Ages, showing the Rapid Decrease of the Ratio as the Ages of the Children progress.

Ages.	Army of India. Ratio of Liability to Death in Percentages (excluding Cholera).					Army of India, average of the five years.	Armies of the three Presidencies.		
	1871. *	1872.	1873.	1874.	1875.		Bengal.	Madras.	Bombay.
Under 6 months (5 months and under).	29·06	28·39	32·42	28·87	33·32	30·41	28·52	29·81	36·35
Between 6 months and 1 year	22·95	25·65	24·31	23·40	20·23	23·31	23·77	24·64	20·69
12 „ 18 months	20·15	18·19	18·23	20·04	20·01	19·32	19·68	20·40	18·58
18 „ 2 years	12·56	10·12	9·02	9·42	8·65	9·95	9·82	9·29	11·61
Between 2 years and 3 years	6·22	7·14	6·51	7·46	6·17	6·70	6·82	7·67	6·04
3 „ 4 „	3·11	4·43	3·28	3·43	5·47	3·95	4·59	4·48	1·93
4 „ 5 „	2·51	1·69	2·44	2·63	2·46	2·35	2·36	1·96	2·49
5 „ 6 „	1·63	1·99	1·65	2·19	1·43	1·78	2·10	1·15	1·44
6 „ 7 „	1·18	1·71	1·14	1·74	1·58	1·47	1·57		
Above 7 years	·63	·69	1·00	·82	·68	·76	·77	·60	·87
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00

* Bengal and Bombay only in 1871.

The Death-rates on which the Ratio of Liability to die at the Different Ages is calculated.

Ages.	Died per 1,000 at strength at the different ages.								
	Army of India.					1871—75.			
	*1871.	1872.	1873.	1874.	1875.	Army of India.	Bengal.	Madras.	Bombay.
Under 6 months	310·22	330·75	255·18	200·89	297·18	273·95	280·33	209·00	315·14
Between 6 months and 1 year	244·77	298·64	191·32	162·79	181·44	211·37	235·71	172·74	180·40
,, 12 and 18 months	215·09	220·01	144·71	139·43	182·93	178·58	196·29	144·22	162·22
,, 18 months and 2 years	134·12	122·87	72·24	65·53	80·88	92·53	99·55	65·12	103·40
,, 2 years and 3 years	66·42	101·56	52·10	51·94	63·51	67·28	75·43	55·46	55·90
,, 3 ,, 4 ,,	33.17	69·46	26·74	23·87	58·23	42·84	54·97	33·16	21·03
,, 4 ,, 5 ,,	26·80	30·07	19·19	20·21	27·70	24·71	29·25	13·79	
,, 5 ,, 6 ,,	17·42	29·32	13·00	15·23	18·03	18·61	24·58	10·41	12·44
,, 6 ,, 7 ,,	12·60	27·06	11·51	12·08	19·98	16·88	19·16		
Upwards of 7 years	6·69	15·23	9·27	5·70	10·63	9·76	11·70	4·80	8·76
Children as a body	79·88	97·99	60·11	54·50	69·20	71·57	79·01	53·21	68·19
	Died per 1,000, excluding Deaths from Cholera.								
	1871.	1872.	1873.	1874.	1875.	Army of India.	Bengal.	Madras.	Bombay.
Under 6 months	310·22	325·58	255·18	200·89	297·18	272·88	278·58	209·00	315·14
Between 6 months and 1 year	243·29	294·11	191·32	162·79	180·41	209·09	232·21	172·74	179·35
,, 12 ,, ,, 18 months	213·49	208·61	143·53	139·43	178·49	175·67	192·16	143·03	161·07
,, 18 ,, ,, 2 years	134·12	116·05	70·28	65·53	77·21	89·91	95·95	65·12	100·68
,, 2 years ,, 3 ,,	66·42	81·90	51·26	51·94	55·04	61·05	66·65	53·78	52·35
,, 3 ,, ,, 4 ,,	30·71	50·76	25·85	23·87	48·90	36·20	44·85	31·41	16·78
,, 4 ,, ,, 5 ,,	26·80	19·40	19·19	18·29	21·97	20·76	23·03	13·79	21·57
,, 5 ,, ,, 6 ,,	17·42	22·81	13·00	15·23	12·73	16·14	20·49	8·10	12·44
,, 6 ,, ,, 7 ,,	12·60	19·68	8·95	12·08	14·10	13·56	15·33		
Upwards of 7 years	6·69	7·96	7·86	5·70	6·08	6·83	7·47	4·20	7·50
Children as a body	79·13	87·98	59·19	54·34	64·15	68·09	73·95	52·27	66·88

* Bengal and Bombay only in 1871.

The proportion which the cholera-rate bears to the general death-ratio of the older children.

Out of 100 deaths of children above seven years of age, 31 were caused by cholera. This does not mean that the liability to cholera increases as years advance; it depends entirely on the tendency to death from other diseases being diminished, while no corresponding diminution takes place in the case of cholera. The death-rate for cholera above seven was only 4·23, while from four to six it was 4·76, between two and four 9·44, and for all children below two years of age 3·26 per 1,000. The proportion of cholera-deaths to the total mortality at the different ages was as under, taking the deaths of the Army of Bengal of 1871—1875:—

Above seven.	Four to six.	Two to four.	Below two years.
36·1	19·4	14·4	1.6

In the years from 1872 to 1876, out of 213 cholera deaths in the Army of India, 9 only occurred in children under twelve months.

How children die at the different ages. A series of tables based on 4,076 deaths.

This appears conspicuously in the next table, which shows how, as well as in what proportion, children die at the different ages. In the first section cholera sinks to the bottom, while in the two last it takes the leading place:—

Composition of 100 Deaths of Children at Different Ages. Results of 1872—76.

Under six months.		From six to twelve months.		From one to two years.	
Convulsions	29	Dysentery and Diarrhœa	27	Dysentery and Diarrhœa	31
Anæmia and Debility	25	Dentition	21·5	Dentition	16·5
Dysentery and Diarrhœa	18	Convulsions	16	Convulsions	11
Croup and Bronchitis	7	Anæmia and Debility	8	Anæmia and Debility	9
Fevers	5	Croup and Bronchitis	7	Croup and Bronchitis	8
Dentition	3	Fevers	6	Tabes Mesenterica	6·5
Tabes Mesenterica	2	Meningitis	5	Measles	5
Meningitis	2	Measles	3	Fevers	4
Measles	·5	Tabes Mesenterica	2·5	Meningitis	2·5
Cholera	·5	Cholera	·5	Cholera	2·5
All other Causes	8	All other Causes	3·5	All other Causes	4
All Causes	= 100	All Causes	= 100	All Causes	= 100
Two and three years.		**From four to seven years.**		**Above seven years.**	
Dysentery and Diarrhœa	24·5	Cholera	18	Cholera	31
Cholera	12	Fevers	16·5	Fevers	17·5
Fevers	11	Croup and Bronchitis	16	Croup and Bronchitis	10
Croup and Bronchitis	10	Dysentery and Diarrhœa	10	Dysentery and Diarrhœa	8·5
Convulsions	9	Convulsions	10	Measles	3·5
Measles	8·5	Measles	5	Convulsions	2
Anæmia and Debility	6	Tabes Mesenterica	5	Anæmia and Debility	2
Tabes Mesenterica	6	Meningitis	4·5	Tabes Mesenterica	2
Dentition	2	Anæmia and Debility	3	Meningitis	2
Meningitis	2	Dentition	...	Dentition	...
All other Causes	9	All other Causes	12	All other Causes	21·5
All Causes	= 100	All Causes	= 100	All Causes	= 100

These figures are based on the table which follows, showing how 4,076 children died at these ages, and in what ratio. It is an aggregate from which many most important lessons may be learned; and regarded simply in its aspect, it is obviously an important contribution to the natural history of disease, as manifested among European children in this country :—

Deaths and Death-rates from the Chief Causes of Mortality of the Children of the Army of India, shown in relation to Age, on the results of the years from 1872 to 1876.

DEATHS OF THE ARMY OF INDIA, 1872 TO 1876.

Ages.	Aggregate of the annual strengths, 1872–76.	Total Deaths.	Cholera.	Small-pox.	Measles.	Hooping Cough.	Scarlet Fever.	Enteric Fever.	Ague.	Remittent Fevers.	Sunstroke.	Dentition.	Convul-sions.	Menin-gitis.	Tabes.	Phthisis.	Dysentery.	Diarrhœa.	Anæmia.	Bronchitis.	Croup.	All other Causes.	Died per 1,000 of Strength.
Under 6 months	3,964	1,011	4	7	5	6	1	1	5	44	1	29	295	17	21	1	14	170	252	69	5	64	255·05
Between 6 months and 1 year	4,714	944	5	1	26	9	...	...	9	44	5	204	153	49	24	1	43	211	73	56	12	19	200·25
,, 12 ,, and 18 months	4,256	725	13	2	32	2	1	...	5	23	...	143	82	21	37	1	36	181	66	43	16	22	170·38
,, 18 ,, and 2 years	4,079	343	14	...	19	1	...	...	2	16	...	35	38	7	32	2	22	90	28	22	5	10	84·09
,, 2 and 3 years	5,883	372	37	...	37	4	...	...	6	29	2	10	32	7	27	2	29	69	19	22	21	19	62·18
,, 3 and 4 ,,	5,566	236	38	...	15	3	1	2	1	27	3	...	22	9	10	1	21	30	15	3	17	18	42·86
,, 4 and 5 ,,	5,083	122	20	...	6	...	1	3	2	11	1	...	13	6	9	1	8	6	5	5	18	7	24·00
,, 5 and 6 ,,	4,679	79	13	1	6	1	1	2	1	9	5	...	7	3	2	...	4	4	1	3	10	6	16·88
,, 6 and 7 ,,	4,032	66	14	...	2	...	2	2	4	10	...	...	6	3	2	...	1	4	2	3	4	7	16·17
Above 7 years	18,089	177	55	3	6	...	...	2	1	28	7	...	4	4	3	2	9	6	3	5	13	26	9·79
TOTAL	60,426	4,076	213	14	154	26	7	12	36	241	24	421	652	126	167	11	187	771	464	231	121	198	67·45

COMPOSITION OF THE DEATH-RATE AT THE DIFFERENT AGES, ARMY OF INDIA, 1872 to 1876.

DIED PER 1,000 FROM THE VARIOUS CAUSES OF MORTALITY.

Ages.	Death-rate per 1,000 of Strength.	Cholera.	Measles.	Fevers.	Dentition.	Convulsions.	Meningitis.	Tabes.	Diarrhœa and Dysentery.	Anæmia and Debility.	Croup and Bronchitis.	All other Causes.
Under 6 months	255·05	1·01	1·25	12·61	7·32	74·42	4·29	5·30	46·42	63·57	18·67	29·18
Between 6 months and 1 year	200·25	1·06	5·52	11·24	43·26	32·46	10·39	5·09	53·83	15·49	14·42	7·42
,, 12 and 18 months	170·38	3·05	7·52	6·58	33·69	19·27	4·93	8·69	50·99	15·51	13·86	6·58
,, 18 months and 2 years	84·09	3·43	4·65	4·41	8·58	9·32	1·72	7·84	27·46	6·86	6·62	3·19
,, 2 and 3 years	62·18	6·19	6·19	5·85	5·45	5·35	1·17	4·51	16·38	3·17	7·19	4·51
,, 3 and 4 ,,	42·86	6·90	2·72	5·45	3·15	4·00	1·64	1·82	9·35	2·72	3·63	4·72
,, 4 and 5 ,,	24·00	3·93	1·18	2·56	.....	2·56	1·18	1·77	2·76	·98	4·52	1·97
,, 5 and 6 ,,	16·88	2·78	1·28	.....	.....	1·50	·64	·43	1·71	·21	2·78	2·99
,, 6 and 7 ,,	16·17	3·43	·49	3·92	.....	1·47	·74	·49	1·23	·49	1·72	2·20
Above 7 years	9·79	3·04	·33	1·71	.....	·22	·22	·17	·83	·17	1·00	2·10

The death-ratios of the children of the Armies of the Three Presidencies as influenced by season. Statistics of monthly mortality.

The concluding table shows how in the Armies of the Three Presidencies 4,008 deaths fell in relation to season. The distribution, month by month, of the chief causes of sickness and mortality is exhibited in the general table, in which the statistics for the Army of India for the five years 1871—75 are aggregated. Observation tells how greatly the mortality of children is increased in the hot months, and this is the illustration afforded by the statistics of these years:

Died per cent. of the Total Deaths.

	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
October to March . . .	37·5	37·3	35·3	39·5
April to September . . .	62·5	62·7	64·7	60·5
	100·0	100·0	100·0	100·0

Died per 1,000 of Strength.

October to March . . .	25·5	28·0	18·0	26·5
April to September . . .	42·5	47·0	33·0	40·5
	68·0	75·0	51·0	67·0

The details month by month are given below:—

Comparative Liability of Children to die in the Different Months of the Year.

(Results of 1871—75, excluding Cholera.)

Months.	Army of India.			Army of Bengal.			Army of Bombay.			Army of Madras.		
	Deaths.	Died per 1,000.	Died per cent. of total deaths.	Deaths.	Died per 1,000.	Died per cent. of total deaths.	Deaths.	Died per 1,000.	Died per cent. of total deaths.	Deaths.	Died per 1,000.	Died per cent. of total deaths.
January	202	3·54	5·2	117	3·58	4·7	47	4·41	6·6	38	2·75	5·4
February	159	2·73	4·0	94	2·84	3·8	32	2·89	4·3	33	2·35	4·6
March	287	4·87	7·2	158	4·74	6·3	71	6·32	9·3	58	4·04	7·9
April	396	6·71	9·9	260	7·81	10·4	78	6·88	10·3	58	4·04	7·9
May	394	6·68	9·8	255	7·6	10·2	54	4·74	7·1	85	5·94	11·6
June	354	5·98	8·8	228	6·83	9·1	44	3·82	5·7	82	5·72	11·2
July	423	7·11	10·5	239	7·14	9·5	87	7·53	11·2	97	6·72	13·1
August	523	8·78	12·9	323	9·65	12·8	112	9·67	14·5	88	6·07	11·9
September	428	7·17	10·6	271	8·07	10·7	90	7·80	11·7	67	4·61	9·0
October	293	4·93	7·3	191	5·69	7·5	60	5·21	7·8	42	2·92	5·7
November	270	4·53	6·7	182	5·42	7·2	51	4·37	6·6	37	2·58	5·1
December	279	4·78	7·1	195	5·88	7·8	36	3·23	4·9	48	3·39	6·6
Total . .	4,008	67·97	100·0	2,513	75·42	100·0	762	67·04	100·0	733	51·28	100·0

Here follows the standard of 1871—75, giving the monthly and annual statistics of a body of children aggregating 59,000; and the comparative statement shows how the ratios for the Army of India have fallen in each year of the period, and for the Armies of Bengal, Madras and Bombay on the average of the five years:

CHILDREN OF EUROPEAN REGIMENTS, 1871—75.

Table showing the Aggregate of the Sickness and Mortality among the Children of the European Regiments composing the Army of India during the years from 1871 to 1875, and the Prevalence of the Principal Diseases in each Month.

Months.	Aggregate Strength of the five years.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths in the five years.	Died per 1,000 in each Month.		Causes of Deaths.														
					All Causes.	Excluding Cholera.	Cholera.	Measles.	Hooping Cough.	Fevers.	Dentition.	Convulsions.	Meningitis and hydrocephalus.	Tabes Mesenterica.	Dysentery.	Diarrhœa.	Atrophy and Anæmia.	Bronchitis and Pneumonia.	Croup and Diphtheria.	All other Causes.	Scarlet Fever (imported.)
January	57,134	1,238	21·7	202	3·54	3·54	...	12	3	10	12	32	7	10	9	24	27	24	16	15	1
February	58,164	1,243	21·4	161	2·77	2·73	...	8	3	8	8	32	6	9	7	15	19	24	6	13	1
March	58,914	1,431	24·3	287	4·87	4·87	...	32	6	18	23	48	13	9	10	42	32	25	5	20	4
April	58,983	1,924	32·6	399	6·76	6·71	3	22	3	32	43	68	21	10	15	82	47	17	6	28	2
May	58,985	2,304	39·1	410	6·95	6·68	16	30	3	37	38	72	20	21	9	71	49	11	12	37	4
June	59,236	2,412	40·7	360	6·08	5·98	6	26	2	35	35	60	21	13	15	62	38	16	7	22	2
July	59,453	2,698	45·4	452	7·60	7·11	29	13	6	39	43	69	14	14	12	103	64	16	11	17	1
August	59,589	3,041	51·0	597	10·02	8·78	74	4	5	41	78	68	6	20	28	158	53	19	12	24	7
September	59,668	2,893	48·5	477	8·00	7·17	49	...	1	40	58	69	12	24	27	104	38	23	10	32	...
October	59,467	2,371	39·9	311	5·23	4·93	18	...	3	26	18	61	6	12	18	58	39	15	12	25	...
November	59,580	1,790	30·0	277	4·65	4·53	7	4	1	35	25	47	9	12	14	41	36	19	7	19	1
December	58,427	1,351	23·1	279	4·78	4·78	...	10	4	17	18	44	6	16	9	39	41	26	21	37	1
							204	161	40	319	399	670	141	170	183	799	483	235	125	259	24
							Died per 1,000 of the Average Strength.														
Five years, 1871—75	58,967	2,058	34·9	4,212	71·43	67·97	3·46	2·73	·68	5·41	6·77	11·36	2·39	2·88	3·10	13·55	8·19	3·98	2·12	4·39	·41

Causes of Admissions.	Number of Admissions into Hospital in each Month.												Total Admissions of the five years.	Admitted per 1,000 of Strength.	Died out of each hundred treated.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	2	...	4	25	7	46	98	59	24	10	...	275	4·7	74·18
Measles	180	267	404	353	417	359	132	67	41	19	66	223	2,528	42·9	6·37
Hooping Cough	49	46	52	57	54	90	85	43	31	43	25	64	639	10·8	6·26
Intermittent Fevers	274	170	266	379	411	438	492	648	773	1,078	878	468	6,275	106·4	2·82
Remittent and Continued Fevers	160	143	310	427	499	516	461	491	626	645	482	279	5,039	85·4	
Dysentery	70	44	72	115	97	113	150	206	194	124	81	85	1,351	22·9	13·54
Diarrhœa	209	201	403	682	559	514	796	987	662	351	318	245	5,927	100·5	13·48
Spleen Disease	7	7	5	10	14	13	12	14	12	9	9	7	119	2·0	.....
Respiratory Diseases	252	236	290	214	221	188	215	260	311	285	260	266	2,998	50·8	12·01
Eye Diseases	84	73	186	629	630	602	1,650	1,975	1,383	799	314	128	8,513	144·4	.....
Anæmia and Debility	346	296	372	443	495	526	573	493	498	517	434	424	5,417	91·9	8·92
Tubercular Diseases	29	30	29	52	62	43	49	39	48	39	35	31	486	8·2	34·98
Meningitis and Hydrocephalus	8	10	17	33	24	29	24	14	13	14	14	7	207	3·5	68·12
Convulsions	42	43	60	98	97	78	94	80	88	88	66	53	887	15·1	75·53
Dentition	98	81	157	257	232	271	241	305	242	172	147	126	2,329	39·5	17·13
Abscess and Ulcer	35	38	53	76	101	113	100	97	87	66	54	50	870	14·8	
Injuries	69	59	82	73	64	73	79	82	89	88	56	69	883	15·0	4·98
All other Causes	201	271	370	425	382	318	416	327	389	315	208	187	3,809	64·6	
	2,113	2,017	3,128	4,327	4,444	4,291	5,615	6,226	5,546	4,676	3,457	2,712	48,552		
	Admitted per 1,000 of the Average Strength in each Month.														
	37·0	34·7	53·1	73·4	75·3	72·4	94·4	104·5	92·9	78·6	58·0	46·4	823·4		

Comparative Statement showing the Ratios of Sickness and Mortality among the Children of the Army of India in each year from 1871 to 1875, and the Children of the Armies of the Three Presidencies on the Average of the five-year period.

	RATIOS PER 1,000 OF STRENGTH.								
	ARMY OF INDIA, 1871—75.					AVERAGE OF FIVE YEARS, 1871—75.			
	1871.	1872.	1873.	1874.	1875.	Army of India.	Army of Bengal.	Army of Madras.	Army of Bombay.
I.—AVERAGE DAILY SICK-RATE OF EACH MONTH.									
January	22·2	22·6	21·3	22·0	20·4	21·7	24·9	14·4	21·3
February	24·0	23·0	20·5	21·4	18·5	21·4	24·3	14·7	21·3
March	28·9	23·8	24·8	21·0	23·7	24·3	27·3	16·1	25·8
April	35·0	31·5	35·6	29·7	31·7	32·6	39·5	20·1	28·1
May	50·4	42·1	39·4	32·6	32·5	39·1	48·6	24·5	29·5
June	51·6	42·5	40·3	36·3	34·4	40·7	50·3	25·8	30·4
July	59·5	46·3	40·0	45·0	37·7	45·4	55·7	29·8	34·9
August	57·8	63·0	44·6	47·9	43·0	51·0	63·1	29·0	43·9
September	52·1	64·1	47·1	38·8	41·7	48·5	60·9	26·1	40·5
October	40·0	50·1	38·9	34·9	36·1	39·9	48·2	22·1	37·8
November	29·4	36·7	26·5	29·0	28·8	30·0	36·0	17·0	28·9
December	23·5	24·8	22·8	25·4	19·1	23·1	26·8	16·0	21·2
Annual average	39·7	39·4	33·6	32·0	30·7	34·9	42·2	21·4	30·5
II.—ADMISSION-RATE OF EACH MONTH.									
January	40·6	41·2	30·4	37·2	36·0	37·0	34·7	38·5	42·0
February	37·6	36·5	31·6	33·1	35·0	34·7	34·3	35·9	34·2
March	57·2	48·7	41·9	50·6	66·7	53·1	51·5	49·3	62·8
April	73·1	82·7	75·7	66·0	69·9	73·4	84·7	54·5	64·0
May	109·4	82·5	57·0	69·1	62·7	75·3	85·6	65·5	67·6
June	87·9	67·4	61·1	69·9	77·2	72·4	80·6	64·1	59·0
July	101·5	103·6	74·2	117·1	76·3	94·4	105·5	79·0	81·7
August	107·6	132·1	83·4	91·0	109·4	104·5	118·6	72·8	103·4
September	70·6	117·9	113·5	80·8	81·8	92·9	106·1	63·8	91·4
October	68·8	119·0	72·7	62·8	71·0	78·6	85·4	58·5	84·0
November	47·5	64·1	50·9	57·6	68·7	58·0	65·2	41·1	58·1
December	40·7	47·3	46·6	57·7	38·8	46·4	49·9	38·1	46·6
Admission-rate of the year	846·3	946·4	741·1	795·0	794·7	823·4	904·0	662·8	788·9
III.—COMPOSITION OF THE ANNUAL ADMISSION-RATE.									
Cholera	1·8	13·2	1·3	·2	6·7	4·7	6·8	1·8	1·9
Measles	52·6	31·9	21·1	53·2	55·3	42·9	46·8	43·2	31·1
Hooping Cough	20·2	4·4	8·3	10·8	11·2	10·8	13·9	6·6	7·3
Intermittent Fevers	109·6	118·2	105·0	100·6	99·7	106·4	119·6	28·7	165·6
Remittent and Continued Fevers	73·3	105·5	77·3	95·7	74·4	85·4	102·2	61·4	66·6
Dysentery	23·8	27·6	22·3	17·3	24·0	22·9	20·8	31·2	18·8
Diarrhœa	109·1	127·3	89·8	74·6	104·1	100·5	112·5	75·8	96·4
Spleen Disease	2·5	1·2	2·3	1·7	2·3	2·0	3·3		·9
Respiratory Diseases	51·2	49·2	46·9	53·7	53·0	50·8	51·1	58·6	40·2
Eye Diseases	167·4	134·0	144·7	141·9	136·4	144·4	168·3	111·5	115·6
Anæmia and Debility	77·9	109·7	87·9	96·9	85·8	91·9	102·1	90·8	63·1
Tubercular Diseases	10·8	9·9	7·2	6·3	7·5	8·2	8·1	8·1	8·6
Meningitis and Hydrocephalus	4·3	4·9	2·6	2·7	3·2	3·5	3·5	3·1	4·9
Convulsions	14·6	19·3	13·9	12·5	15·0	15·1	14·8	13·4	17·7
Dentition	38·7	34·4	40·3	43·8	39·9	39·5	40·7	35·1	41·7
Abscess and Ulcer	14·0	14·4	14·1	15·7	15·5	14·8	14·5	15·5	14·7
Injuries	15·8	14·1	14·7	16·2	14·2	15·0	14·5	15·0	16·1
All other Causes	58·7	127·2*	41·4	51·2	46·4	64·6	69·5	63·0	78·6
Admission-rate of the year	846·3	946·4	741·1	795·0	794·7	823·4	904·0	662·8	788·9
IV.—COMPOSITION OF THE ANNUAL DEATH-RATE.									
Cholera	·93	10·12	·93	·16	5·10	3·46	5·19	1·05	1·41
Measles	3·18	2·32	1·69	2·50	3·96	2·73	3·24	2·03	2·11
Hooping Cough	1·78	·26	·59	·32	·57	·68	·99	·28	·26
Intermittent Fever Remittent and Continued Fevers	6·36	7·81	5·39	3·95	3·80	5·41	7·02	2·73	4·05
Dentition	5·98	7·89	5·39	7·50	6·96	6·77	7·11	6·37	6·25
Convulsions	12·71	14·67	9·70	8·96	11·09	11·36	11·08	9·23	14·89
Meningitis and Hydrocephalus	3·18	3·26	1·94	1·70	2·02	2·39	2·31	2·17	2·91
Tabes Mesenterica	2·80	4·20	2·79	2·34	2·35	2·88	3·12	2·09	3·17
Dysentery	2·52	3·77	3·37	2·82	2·99	3·10	2·91	3·43	3·26
Diarrhœa	13·93	19·04	11·21	9·36	14·48	13·55	16·39	7·99	12·33
Atrophy and Anæmia	8·22	12·10	7·50	6·30	7·04	8·19	8·86	6·23	8·72
Bronchitis and Pneumonia	4·11	5·15	3·63	3·79	3·32	3·99	4·68	3·01	3·17
Croup and Diphtheria	1·68	2·32	2·53	2·02	2·02	2·12	2·37	2·03	1·50
All other Causes	6·83	6·17	3·63	3·63	4·04	4·80	5·34	3·78	4·50
Death-rate of the year	74·21	99·08	69·29	55·35	69·75	71·43	89·61	52·33	68·53

* The Admission-rate for Dengue in the epidemic of 1872 was 75 per 1,000.

SECTION II.

TEN-YEAR STANDARD FOR THE NATIVE ARMY OF THE BENGAL PRESIDENCY BASED ON THE STATISTICS OF THE YEARS FROM 1867 TO 1876.

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TEN-YEAR STANDARD FOR THE NATIVE ARMY OF THE BENGAL PRESIDENCY, BASED ON THE STATISTICS OF THE YEARS FROM 1867 TO 1876.

The statistics of the European and Native Armies compared, as related to season.

In contrasting the mortality of the European and Native Armies, the first point that strikes the observer is, that the relation of mortality to season is reversed in the case of these two bodies. Climatic influences predominate in the case of the European in the hot and rainy months; but with the setting in of the cold season mortality declines steadily, and rises again only with the heat of April. With the Native soldier this does not hold. The mortality, which is high in October, increases during November, December and January, and the effects of cold on the debilitated constitution tell even in February and March.

In the previous section, I have called attention to the decrease of mortality in the last quarter of the year in the case of the European Army, as indicative of a great change for the better in all the arrangements affecting the health of British troops, and instanced the steady progress throughout the months from October onwards, as the chief contrasting feature between the statistics of recent and former periods of observation.

The case is very different with the Native soldier. Climatic influences, from which the European readily recovers, leave lasting effects on his weakly frame; and while the European regains health and energy in the cold months, the Native under exposure develops fatal disease.

In former years, at the close of bad epidemic seasons, the mortality among the Europeans prostrated and beyond the power of healthy reaction, was in many instances excessive. In 1869, universally an epidemic year, the tendency to death from the long continuance of severe sickness was in several cases developed. As an example, Her Majesty's 58th Regiment, stationed at Allahabad, lost 20 men from dysentery and hepatitis in the last months of the year. But such a case as this, which is not to be compared with the great outbreaks of former years, is in these times to be quoted as rare and exceptional.

The parallel phenomenon which, in former years, so gravely affected the statistics of our hill stations, has also been noticed in reviewing the statistics of the European Army.

Some time since, having occasion to contrast the statistics of the Native Army of Bengal for the ten-year period 1864 to 1873 with the standard for the European Army of 1860 to 1869, I was much struck with the illustration of the point in question afforded by the general ratios of the two armies. The relation of the mortality to months in the European and Native Armies stands thus:—

Died out of each 100 deaths in each month, cholera and deaths from violence being excluded.

	European Army of Bengal, 1860-69.		Native Army of Bengal, 1864-73.	
November	8·8		11·4	
December	7·6		13·2	
January	6·0	37·6	13·4	62·6
February	4·3		8·6	
March	4·4		9·0	
April	6·5		7·0	
May	7·6		6·6	
June	11·0		5·5	
July	10·1	62·4	5·5	37·4
August	10·7		5·7	
September	11·6		5·4	
October	11·4		8·7	
	100·0		100·0	

Taking the months from May to October and from November to April, the sum of the monthly ratios exhibits a contrast absolutely diametrical; 63 per cent. of the mortality of the Natives falls in the cold months, and 37 in the hot season; while in the European Army 62 per cent. falls in the hot months, and 38 in the cold.

Causes of mortality at the different seasons compared in the two bodies.

Continuing the illustration, the predominance of the chief causes of mortality in the cold weather, as contrasted with their prevalence in the hot season, was commented on thus:

"Dysentery, fever, and pneumonia make up three-fourths of the mortality of the Native Army. Sixty per cent. of all deaths from fever and dysentery occur between November and

April; and 80 per cent. of all deaths from respiratory diseases are shown in the same months. The fact that nearly 200 men have died on the march in the cold season within the last ten years from fever or pneumonia, in the great majority of cases synonymous terms, demonstrates how exposure tells on the debilitated sepoy, and indicates the necessity for avoiding night marching in every case where a regiment has suffered severely in the previous months. In the Frontier Force 80 per cent. of all deaths from respiratory diseases are included within these months, and 63 per cent. of all deaths from fevers.

"These are the figures on which the preceding remarks are based:—

Died per cent. of the total in each month from the chief causes of mortality affecting the Native Army—Results of 1864—73.

	Regular Army.			Frontier Force.	
	Fevers.	Dysentery.	Respiratory diseases.	Fevers.	Respiratory diseases.
January	11·5	11·9	21·8	12·9	23·6
February	7·5	7·9	12·8	8·0	18·7
March	8·6	8·3	10·8	6·9	7·3
April	7·1	4·1	7·9	6·3	7·8
May	6·9	4·4	6·0	6·9	2·6
June	6·5	5·2	2·8	6·6	2·6
July	5·4	6·7	2·6	3·5	1·5
August	6·3	6·7	2·7	4·9	·9
September	5·3	6·3	2·2	5·5	2·3
October	10·1	11·0	3·7	9·5	·9
November	13·3	12·3	10·3	15·5	8·5
December	11·5	15·2	16·4	13·5	23·3
	100·0	100·0	100·0	100·0	100·0

"In the aggregate for the ten years 1864-73, fevers, dysentery, and respiratory diseases represent 70 per cent. of the total mortality; and if spleen disease, scurvy, dropsy, and atrophy be classed along with these, as they should be, having regard to their etiology, one-fifth only of the deaths remain to be otherwise accounted for.

"The difference in the character of the fevers of the Native and the European is shown by this, that in the months from May to October 70 per cent. of all fever deaths occur in the European Army, and 30 per cent. from November to April; while in the Native army, 60 per cent. occur in the cold months, and 40 in the six hot months of the year. Respiratory disease represents 20 per cent. of the mortality of the Native, and 5 per cent of that of the European. But, on the other hand, hepatitis, which causes 1·59 per cent. of the Native mortality, brings about 17 out of every hundred deaths of Europeans; heat apoplexy is shown with a ratio of 11·51, as compared with 1·88 in the case of the Native; and heart disease is responsible for 5·27 per cent. of the deaths of European soldiers, and for less than 2 per cent. of the total Native mortality."

In the ten years ending 1876, after excluding cholera, 64 per cent. of the total mortality of the Native Army took place between November and April, and 36 per cent. between May and October.

In the European Army of Bengal, for the same ten-year period, 60 per cent. of the total mortality occurred from May to October, and 40 per cent. from November to April.

Components of the Death-rates of the Native and European Armies of 1867-76 compared.

The components of the death-rate were very nearly the same as represented above. Fevers, dysentery and the allied diseases, and respiratory diseases made up 77 per cent. of the total; and the remaining 23 per cent. was nearly identical in its composition.

Died out each 100 Deaths.

	Native Army of Bengal.				European Army of Bengal.	
	1864—1873.		1867—1876.		1860—1869.	1867—1876.
Fevers	29·5		25·8		18·8	21·2
Dysentery	20·3		18·3		18·2	10·9
Respiratory diseases	20·2	78·6	23·4	76·9	5·2	6·4
Spleen disease, scurvy, dropsy, and atrophy	8·6		9·4		2·2	1·3
Phthisis	6·2		7·0		9·0	8·9
Heart disease	1·9		1·8		5·3	8·3
Apoplexy	1·9		2·0		11·5	12·1
Hepatitis	1·6		1·4		17·3	16·7
All other causes	9·8		10·9		12·5	14·2
	100·0		100·0		100·0	100·0

In the European Army the ratio for dysentery is much diminished, and that for heart disease increased in the later of the two periods above shown. In other respects there is little alteration, and the two statements may fairly be used to indicate the features in which the death-rates of the European and Native soldier diverge.

Etiological distinction between the fevers of the European and Native Armies.

By the coincidence of the number of fever deaths being nearly the same in both armies for the ten years 1867—1876, the etiological distinction between the nature of the fevers can be remarkably demonstrated by placing the number of deaths in apposition month by month. In the European Army of Bengal 1,107 fever deaths occurred between 1867 and 1876; and during the same ten-year period 1,120 fever deaths occurred in the Native Army. These were distributed month by month as under:—

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
Europeans	45	48	37	83	135	129	95	134	161	108	80	52
Natives	130	102	101	65	62	66	58	69	61	107	163	136

October to March . .	European deaths	370	Native deaths	739
April to September .	„ „	737	„ „	381
TOTAL . .		1,107		1,120

This is another very interesting illustration of the fact set forth in the previous paragraph.

Enteric Fever of the Native soldier: its nature and the extent of its prevalence.

In the past six years, 373 fever deaths of the European Army of Bengal were attributed to enteric fever, and in the same time 29 fever deaths of the Native Army appear under the heading of enteric fever. During these years the attention of medical officers has been prominently directed to this disease; and if cases have escaped record, others, in which the diagnosis was doubtful, have been introduced into our returns, and compensate for the deficiency. In the great majority, I do not doubt the accuracy of the diagnosis. In these cases, as the rule, it was a young Goorkha or a young recruit from beyond the North-Western Frontier who suffered; and I associate these cases and their etiology, with the parallel occurrence among the young men of our European Army. To point to these 29 cases in order to suggest the possibility of their having been acquired from contact with the outside population, or to infer that out of 7,500 deaths, these 29 fever deaths came about by special insanitary conditions, is manifestly wrong. This is brought before us even more impressively in the Jail Section, where we have to determine the place which enteric fever holds in a total of 67,000 deaths of Natives of India.

The Native soldier a foreigner in many parts of India.

The ratios of areas suited to his constitution compared with those of unsuitable localities.

The Native soldier of India is a foreigner in many districts of the Bengal Presidency in which he is called on to serve. Stationed beyond the Indus, his admission-rate and death-rate much exceed the average for the European Army as a body; and, at the opposite extreme of the Presidency, the ratios are not less than on the North-Western Frontier.

From Behar to the Indus may be regarded as the limits within which the sepoy finds a climate suited to him, or approximating to what is natural to his requirements as a native of Upper India. From 7 to 10 per 1,000 may be taken as the normal annual death-rate for this area. On the average of the ten years 1867—1876, the loss by death was as under, for men present with their regiments:—

	All causes.	Cholera.	All causes, excluding cholera.
Gangetic Provinces and Oudh . .	8·38	1·49	6·89
Rohilcund and Meerut . . .	11·19	·82	10·37
Agra and Central India . . .	9·61	1·04	8·57

The stations of the Punjab east of the Indus give these death-rates on the average of the same period:—

Umballa	7·66	Sialkot . . .	6·74
Jullundur	13·44	Meean Meer . . .	20·19
Ferozepore	7·07	Jhelum . . .	6·42
Mooltan	9·62	Rawalpindi . . .	11·71

Talagaon . . . 5·07

The ratios for the Trans-Indus Force and for the Troops in Bengal Proper are contrasted below with those of the regiments stationed in the Gangetic Provinces and Oudh during the same period of seven years, from 1870 onwards:

1.—Native Troops serving Trans-Indus.

Year.	Strength.	Ratios per 1,000 of Strength. Daily Sick-rate.	Admission-rate.	Death-rate.	Cholera-rate.
1870 . . .	13,452	59·5	2165·3	18·96	...
1871 . . .	13,058	46·6	1558·3	18·99	·08
1872 . . .	13,093	47·7	1839·4	22·23	6·87
1873 . . .	12,789	48·4	1724·6	16·35	...
1874 . . .	12,720	49·8	1836·3	11·48	...
1875 . . .	12,722	47·9	1795·6	20·12	·08
1876 . . .	13,159	44·2	1785·4	14·21	3·72

2.—Native Troops in Bengal Proper and Assam.

1870 . . .	7,248	45·5	1460·0	15·59	3·03
1871 . . .	7,203	57·2	1731·0	18·33	1·25
1872 . . .	6,660	59·9	1788·2	16·36	2·70
1873 . . .	7,260	50·0	1455·8	21·08	2·76
1874 . . .	7,591	55·5	1530·4	19·10	4·74
1875 . . .	7,601	57·6	1525·3	21·58	2·76
1876 . . .	7,484	48·8	1579·0	16·43	2·01

3.—Native Troops in the Gangetic Provinces and Oudh.

1870 . . .	6,742	38·0	1251·3	10·98	·89
1871 . . .	6,530	37·7	1140·7	9·34	·61
1872 . . .	5,900	37·1	1285·2	9·33	2·37
1873 . . .	6,664	39·6	997·9	9·75	1·20
1874 . . .	6,357	35·1	880·6	5·51	...
1875 . . .	6,738	31·9	896·9	5·05	1·34
1876 . . .	6,381	26·6	847·7	7·05	1·72

The characteristics of the death-rate of the Native Soldier, and their variation with locality.

Taking the European and Native Armies of Bengal in the aggregate, the average annual loss per 1,000 on the results of 1867—1876, stands thus, and is made up in detail as under:

	European Army of Bengal. Aggregate Strength of 1867—1876 . 353,450.	Native Army of Bengal. Aggregate Strength of 1867—1876 . 395,081.
Cholera	5·19	2·12
Smallpox	·15	·20
Fevers	3·31	2·84
Apoplexy	1·88	·22
Dysentery	1·68	2·01
Hepatitis	2·60	·15
Phthisis pulmonalis	1·38	·77
Respiratory diseases	·99	2·57
Heart disease	1·29	·20
Spleen disease, dropsy, scurvy, and atrophy	·19	1·03
All other causes	2·05	·99
Accidental and suicidal deaths . .	1·61	·74
	22·32	13·84

In acute disease, the ratio for pneumonia in the Native supplies the place of that for hepatitis, which characterizes the death-rate of the European. The mortality from dysentery and diarrhœa is greater in the Native than in the European; but how seldom it is attended with hepatic complication is evident from the fact, that, on the average, six deaths only are attributed annually to liver disease.

For heart disease, the ratio here shown is as 1 to 6 in favour of the Native soldier. But the disproportion is in reality much greater. As expressed in aortic aneurism, it is as 36 to 1. The Native Army of Bengal and the European Army of India are bodies approximating in strength, and in the last seven years 260 British soldiers died from aortic aneurism, while in the same period the Death-rolls of the Native Army of Bengal show 9 deaths only.

The death-rate of the Native Army is chiefly influenced by cold and by the prevalence of diseases of the anæmic type. Fever is followed by diarrhœa, spleen enlargement, dropsy, scurvy, and atrophy; and when the system is thus debilitated, exposure to cold readily determines a fatal pneumonia.

It is remarkable to note how, as we proceed northwards, the relative components of the death-rate of Native troops alter their positions, bowel complaints diminishing and respiratory affections gradually predominating in the ratio:

Died out of each 100 deaths, 1867 to 1876 (Cholera and violent deaths excluded).

	Bengal.		Gangetic Provinces.		Meerut and Rohilcund.		Punjab.		Punjab Frontier.	
Respiratory diseases	11·8		18·0		19·7		33·3		38·4	
Dysentery	25·3	41·6	16·9	24·9	12·0	22·2	14·6	20·7	9·4	14·1
Atrophy, dropsy, and spleen disease	16·3		8·0		10·2		6·1		4·7	
Fevers	22·6		22·7		26·0		28·0		27·1	
Phthisis	7·4		10·6		11·9		5·1		4·0	
Heart disease	2·1		1·6		3·4		1·7		1·7	
Apoplexy	1·8		2·8		2·0		1·3		3·3	
Hepatitis	1·2		3·0		2·8		·7		·9	
All other diseases	11·5		16·4		12·0		9·2		10·5	
	100·0		100·0		100·0		100·0		100·0	

The characteristics of the death-rate of Eastern Bengal. The decay of Native regiments in Eastern Bengal illustrated.

The pneumonia of Northern India takes the place of the dysentery of Eastern Bengal. The death-rate per 1,000 of 1867-1876 for the two classes of disease combined is in Bengal Proper 5·57, and in the Punjab 5·67. But in the north the ratio for respiratory disease is 3·94, while in the east it is 1·77; and 3·80 die of bowel complaints in Bengal, against 1·73 who die from these affections in the Punjab. This is another very perfect illustration, showing how the human system sympathises with the special climatic conditions afforded to it. It must not be inferred from this that pneumonia is rare in Lower Bengal. The tendency for the lungs to fill up is always present when the system is anæmic; and in the cold weather pneumonia is always apt to be developed, although less frequently in Bengal than in Northern India.

How a Native Army employed in an unhealthy climate may melt away was shown in the Bhootan campaign of 1865. Our Table II of 1865 gives the statistics month by month of the Native regiments which served with the Bhootan force.

The force was 7,000 strong in March 1865, and before October, upwards of 2,000 men had been removed by death, or had been sent to their homes. In the field, 520 men died; and in the year following, 169 deaths were noted among the men sent sick to their homes.

The whole force passed through the hospital nearly four times, and the number daily sick from May to October was never less than one-fifth of the total strength.

What happened to nearly all may be illustrated by the loss in a single regiment of the force. In the two years 1865 and 1866, the 12th Native Infantry lost 105 men by death, 101 by invaliding, and 96 by taking their discharge or by being recommended for discharge by the medical officer. The total loss was 302, or nearly one-half of the strength of the corps; and yet the men were well rationed and well cared for in every respect.

The following are examples of the loss by death and invaliding during a tour of service in Lower and Eastern Bengal.

The 10th Native Infantry stationed in Lower Bengal from 1872 to 1876, and averaging 677 strong, lost in the five years 375 men, of whom 205 were discharged invalided, and 170 died. The loss was equal to 554 per 1,000, of which 303 was due to invaliding and 251 to deaths.

As a contrast, in the same five-year period, the 16th Native Infantry, also stationed in Lower and Eastern Bengal, lost in all 180 men out of an average strength of 716,—a ratio of 251 per 1,000, made up 155 by invaliding and 96 by death.

Aggregate loss in a four-years' tour of service in different provinces.

Taking four-year tours of service, the following are illustrations showing the loss which has resulted in typical cases in the different provinces of India:—

The 38th Native Infantry at Buxa in Bhootan, and Barrackpore, lost, in the four years from 1873 to 1876, 224 out of a strength maintained at 675; 115 men were invalided for discharge, and 109 died. The aggregate loss of the four years was equal to 333 per 1,000 of the strength, due 171 to invaliding and 162 to death.*

The 44th Native Infantry in two years spent on the Eastern Frontier, lost 98 men by invaliding and 56 by death, equal to 24 per cent. of its strength. Stationed at Bhaugulpore and in the Sonthal Pergunnahs from 1873 to 1876, the loss was, in the four years, 136; invaliding caused a loss of 108 men, and 28 deaths occurred.

* In 1877, this regiment, still at Barrackpore, lost 231 men, of whom 79 died, and 130 were invalided.

The following are further illustrations of the loss in four years in different stations of Upper India, which show approximately what may be expected.

Regiment.	Station.	Years.	Aggregate loss per 1,000 in four years.		
			By Invaliding.	By Death.	Total.
2nd Native Infantry,	Dinapore ...	1872—1875	96·7	37·0 =	133·7
9th „	Lucknow (3 years) and Morar .	1871—1874	118·6	95·7 =	214·3
33rd „	Allahabad .	1871—1874	168·6	59·6 =	228·2
35th „	Cawnpore . .	1872—1875	175·5	57·6 =	233·1
36th „	Agra . .	1873—1876	202·6	75·8 =	278·4
39th „	Jhansi . .	1870—1873	120·1	66·6 =	186·7
34th „	Morar . .	1871—1874	158·3	48·5 =	206 8
7th „	Jullundur . .	1872—1875	119·5	48·3 =	167·8
40th „	Ferozepore .	1873—1876	132·8	34·3 =	167·1
23rd „	Jhelum . .	1873—1876	235·4	29·1 =	264·5
14th „	Rawalpindi .	1872—1875	65·4	42·1 =	107·5
19th „	Talagaon . .	1872—1875	213·3	29·0 =	242·3

Various causes, such as age and length of service and previous residence in an unhealthy station, prevent such ratios from showing with accuracy what is attributable to the effects of the localities indicated, especially in the case of invaliding. The results as regards death should also be checked by the ten-year tables for stations, which necessarily give the estimate for the effects of locality more perfectly than the experience of individual bodies taken for a limited period.

Decay of a Native Regiment in Upper India illustrated.

In Eastern Bengal, the 38th Native Infantry lost in three years 72 men, besides men who died at home. Of these deaths, 21 were attributed to ague, 19 to diarrhœa, 7 to scurvy or sloughing ulcer, 6 to spleen, dropsy, and debility, 4 to pneumonia, 1 to phthisis, 3 to syphilis, 10 to cholera and small-pox, and 1 to rupture of the heart.

These were the diseases to which the decay of a Native Regiment in Northern India was ascribed. In 27 months, from November 1869 to January 1872, the 35th Native Infantry lost 104 men, besides those who died at their homes. These deaths were returned under the following heads: ague, 34; pneumonia, 49; diarrhœa, 8; debility, 2; rheumatism, 3; apoplexy, 3; spleen disease, 1; phthisis, 1; suicide, 2; and drowning, 1.

This regiment, before its removal to Mecan Meer in 1869, had been stationed for several years in Central India, and it had suffered from malarious disease. Still there was no mortality in the hot season of 1869, and in the six months preceding 25th November it lost but 2 men, one from dysentery, and the other from hepatitis.

On 25th November the men began to die, and up to May 1870 46 deaths had occurred. From June to October the mortality ceased, and one death only occurred in the five months. As in the previous year, when November came round, the mortality re-commenced, and from November 1870 to May 1871 there were 45 deaths. Again, in the hot season of 1871, there was but a single fatal case, and that a case of suicide. With the setting in of the cold season, for the third year in succession the men were stricken down, and from 23rd October till the arrival of the regiment at Cawnpore, in February 1872, 11 deaths occurred, of which 8 were from pneumonic disease.

In 1874 and 1875, while still at Cawnpore, this regiment lost 3 men only in each year.

In a tabular form these deaths stand thus:—

	Died.
June 1269 to 25th November 1869	2
* * * * *	
From 25th November 1869 to May 1870	46
„ June to October 1870	1
„ November 1870 to May 1871	45
„ June to September 1871	1
„ 23rd October 1871 to January 1872	11
Total deaths of 27 months .	104

What occasioned this enormous mortality in these 27 months—a loss equivalent to 18 per cent. of the strength?

To one acquainted with the various aspects of disease in India these reflections occur. The commencement of the mortality was coincident with the debility produced by the great epidemic of malaria of the evil year 1869, which made itself specially felt at Mecan Meer. The 21st Native Infantry, which had returned from Abyssinia in good health, and was cantoned with the 35th, lost 19 men from the same class of diseases between 19th November 1869 and 22nd April 1870, and 1 man from May to November 1870. The cases seem parallel, and it might be a fair inference that the previous medical history of the two regiments is sufficient to account for the disparity of loss.

But again, the commencement and termination of the mortality coincides with the commencement and termination of the season in Upper India, in which contagious diseases allied to

the typhus group, are developed and propagated. It need not be inferred that the original disease affecting these men was the pneumonic typhus which we know as a specific disease; but to many who have considered the subject, it has occurred to suggest, that the asthenic pneumonia generated in such a case as this, and under such circumstances, may become contagious, and may be propagated from man to man as a contagious disease which falls by preference on the lungs.*

Deaths from Fever and Pneumonia.

	Army of Punjab.			Frontier Force.			European Army of the Punjab died per 1,000.		
	Fever.	Pneumonia.	Total.	Fever.	Pneumonia.	Total.	Fever.	Pneumonia.	Total.
1864	46	17 =	63	44	37 =	81	1·89	·95 =	2·84
1865	25	16 =	41	25	15 =	40	2·02	1·08 =	3·10
1866	18	8 =	26	15	15 =	30	1·74	1·21 =	2·95
1867	37	18 =	55	28	17 =	45	2·27	·89 =	3·16
1868	40	22 =	62	13	20 =	33	3·10	·80 =	3·90
1869	73	32 =	105	42	16 =	58	4·71	·79 =	5·50
1870	111	90 =	201	47	52 =	99	6·33	2·84 =	9·17
1871	37	111 =	148	49	72 =	121	4·69	2·35 =	7·04
1872	32	50 =	82	43	55 =	98	4·95	1·40 =	6·35
1873	47	73 =	120	42	44 =	86	2·88	1·89 =	4·77
1874	34	55 =	89	17	62 =	79	2·67	·78 =	3·45
1875	50	83 =	133	31	111 =	141	4·63	1·68 =	6·31
1876	35	54 =	89	29	33 =	62	2·47	1·06 =	3·53

Illustration of the effects of an epidemic season on the health of the Native Army in Northern India.

While it is possible that pneumonia of an asthenic type may become contagious, the parallel development of pneumonia over the entire Northern Punjab, and among Europeans although in a minor degree, points to the effects of a general influence. The epidemic fever of the later months of 1869, shown as under among our types over this area, left in every case persistent evil effects behind it, which were continued into the cold season, when chest diseases naturally prevail:—

Fever Admissions of the Punjab, 1869.

	Strength.	July.	August.	September.	October.	November.	December.	Total.
European Army	14,300	970	1,723	1,910	2,923	3,452	1,355 =	12,333
Native Army	14,400	748	2,260	2,878	4,923	4,073	1,253 =	16,135
Frontier Force	9,500	347	1,658	2,972	3,956	3,468	1,213 =	13,614
Prisoners	12,500	323	1,101	1,352	2,453	1,521	515 =	7,265

The universality in all classes is here demonstrated, and, as usual, when epidemic malaria is abroad, the prisoners are exhibited suffering in a much smaller ratio than the general population. The Native Army shows the highest ratio, and we know that the debilitated system of the under-fed Native soldier does not recruit like that of the European soldier, but continues to develop the diseases of anæmia in many different forms.

The cholera-ratio of Native Troops in Hindostan Proper contrasted with that of Eastern Bengal and the North-Western Frontier.

With this tendency to debility and to succumb to the effects of epidemic malaria, it is remarkable to find the cholera ratio so strongly contrasting with that of the European soldier. I have elsewhere illustrated the phenomenon, taking the results of a long series of years; and in the epidemic years of this period the contrast was shown thus:—

Died from Cholera per 1,000 of Strength.

	1867.	1869.	1872.	1875.
European Army of Bengal	13·84	16·46	7·25	3·32
Native Army	3·17	4·89	4·64	1·69

Out of 1,890 cholera deaths in the Native Army, 1,402 occurred on the North-Western Frontier, on the Eastern Frontier, and in Bengal Proper, the areas foreign to the Native soldier, leaving only 488 deaths distributed over all stations between Bhaugulpore and Nowshera; and it is worthy of remark, with reference to the fact commented on in the last section of this report, that in the latter station, not one cholera admission occurred in these ten years, while Peshawar and Kohat immediately beyond, lost between them in the same years 650 men of the Native Army.

The deaths of Native soldiers at their homes must be taken into account in the calculation of the death-ratio. Comparison of the annual death-rates of the period.

In the contrasted ratios the European appears at a disadvantage. In every year, 6,000 men of the Native Army are sent to their homes at the beginning of the hot weather, either on furlough or sick leave. Now, while in these ten years, 5,467 men died with their regiments, among those who went to their homes 2,282 deaths occurred. The men who go home are still borne on the strength of their regiments; and calculated on the full regimental strength, the true death-ratio is 17·25 per 1,000, the equivalent of 7,749 deaths.

* An excellent report on the fever and pneumonia of this regiment is contained in the Report on the Native Army for 1870.

In the ratio for cholera and violent deaths, the excess against the European is at least 4 per 1,000; and if this be considered, the ratios for climatic disease will be found to approximate very nearly, although differing in their details, as above shown.

The following are the general death-ratios per 1,000 of the ten years; their composition year by year is given in Table II of the Standard for 1867-76:—

	Absent and present deaths, calculated on the total regimental strength.		Deaths of men with their regiments, cholera deaths excluded, calculated on the average number present.
1869	20·41	1870	15·14
1872	20·08	1871	14·20
1870	19·43	1873	12·80
1871	17·81	1869	12·40
1873	17·01	1872	11·87
1867	16·77	1875	11·86
1868	16·23	1867	9·89
1875	15·70	1874	9·83
1876	15·52	1868	9·79
1874	13·50	1876	9·44

After making allowance for exceptional years, it is wonderful to find so great a correspondence in the ratio from year to year.

Annual death-rates of the Frontier Force for the ten-year period.

In Upper India, 1868 was a remarkable year, and the country continued to enjoy a high degree of health until the parallel epidemics of malarious fever and cholera of 1869 made their invasion, and in many districts nearly decimated the population.* On the Frontier the mortality sank far below the lowest ratio attained in any other year of the period, and the admission-rate and daily sick-rate were diminished in like proportion. The year 1874, which was succeeded by the epidemic year 1875, was of a like constitution, and takes the second place:—

Death ratios of the Punjab Frontier Force.

	Absent and present deaths.		Present deaths only.	
			Excluding cholera.	Cholera ratio.
1869	26·72	1875	19·25	·10
1872	23·47	1871	17·73	·10
1875	21·85	1870	15·78	...
1871	20·90	1872	14·98	6·18
1870	18·85	1873	13·87	...
1873	18·38	1874	12·28	...
1867	15·50	1869	11·46	13·90
1876	14·69	1876	10·21	2·84
1874	13·66	1867	8·10	4·27
1868	10·98	1868	7·47	...

The characteristics of the admission-rates and death-rates of the Goorkha Regiments.

The Goorkha Regiments are cantoned at Dehra, Almora, Dhurmsala, Bakloh, and Abbottabad. Their death-rates per 1,000 are—for all deaths present and absent 16·11; for present deaths only 14·11; for cholera 2·04; and for all causes excluding cholera and deaths from violence, 11·41.

The chief components are shown below, and the constitution of the death-rate is compared with that of the Native Army in the Gangetic Provinces, which may be considered in some degree equivalent as regards adaptation to a suitable locality:—

	Died out of each 100 deaths.	
	Goorkha Regiments, 1867-1876.	Army of the Gangetic Provinces, 1867-1876.
Phthisis	20·3	10·6
Fevers	19·0	22·7
Respiratory diseases	16·8	18·0
Dysentery and diarrhœa	11·6	16·9
Spleen disease and anæmia	7·5	8·0
Hepatitis	3·6	3·0
Heart disease	1·9	1·6
Apoplexy	1·1	2·8
All other diseases	18·2	16·4
	100·0	100·0

Dhurmsala and Abbottabad suffered heavily in epidemic years of the period from fever. In 1869 and 1870, 2,541 fever admissions occurred out of a strength of 640 men in the 5th

* The characteristics of this year as typical for a non-epidemic year in Northern India, are studied in my original Cholera Report, page 150.

Goorkhas at Abbottabad; and the 1st Goorkha Regiment, at Dhurmsala, had, in 1869, 707 fever admissions. These cases are, however, exceptional; the average number of admissions annually for the 2nd Goorkhas is 208, for the 3rd Goorkhas 210, and for the 4th Goorkhas, leaving out 1872, during which the regiment suffered on the Eastern Frontier, 236. In employing the following comparative statement, the fact should be noted, that the fever-rate of the Goorkhas has suffered from these exceptional circumstances:—

Admission-rates and Death-rates of the Goorkha Regiments compared with the Ratios for the Native Army of the Gangetic Provinces, on the average of the ten years, 1867—76.

	Admission-rates per 1,000.		Death-rates per 1,000.	
	Goorkhas.	Army of Gangetic Provinces.	Goorkhas.	Army of Gangetic Provinces.
Cholera	3·6	2·5	2·04	1·49
Apoplexy	1·1	·4	·13	·18
Fevers	512·8	445·6	2·17	1·45
Dysentery	65·5	85·5	1·32	1·08
Hepatitis	5·6	1·6	·41	·19
Spleen disease	12·8	5·3	·53	·42
Phthisis	4·1	2·6	2·32	·68
Dropsy	·3	·3	·16	·09
Scurvy	2·0	1·1	·16	...
Respiratory disease	37·6	33·1	1·92	1·15
Rheumatism	67·5	53·4	...	...
Venereal diseases	45·9	49·9	...	...
Eye diseases	43·3	28·6	...	...
All other causes	318·4	328·1	2·95	1·65
	1120·5	1038·0	14·11	8·38

The Death-rate for hepatitis is doubled in the case of the Goorkha; and in his mortality, phthisis takes the highest place. I have shown elsewhere how, under parallel circumstances, the Goorkha and European are equally liable to cholera, and are attacked in an equal ratio. By smallpox also the Goorkha is selected, and nearly 40 per cent. die of all who contract the disease.

Constitution by Race of the Native Army of Bengal.

Taking the Native Army as constituted in 1872 and 1876 as typical, we find the different races represented in these proportions:—

			1872.		1876.
Hindoos	31,905	Sikhs	9,527	32,594	10,242
		Rajpoots and Brahmins	6,226		5,390
		Goorkhas	4,469		4,619
		Other Hill Hindoos	2,454		2,673
		Other Hindoos	9,229		9,670
Mahomedans	12,073	Punjabees	3,547	11,844	4,069
		Trans-Indus Pathans	2,876		2,749
		Other Mahomedans	5,650		5,026
		Native Christians	298		284

making up a Strength of 44,276 in 1872, and of 44,722 in 1876.

The Punjab Frontier Force is made up thus:—

Hindoos	6,651	Sikhs	3,608	6,646	3,677
		Rajpoots	323		368
		Goorkhas	857		843
		Other Hill Hindoos	1,340		1,333
		Other Hindoos	523		425
Mahomedans	5,563	Punjabees	2,099	5,614	2,230
		Trans-Indus Pathans	2,642		2,332
		Other Mahomedans	822		1,052
		Native Christians	1		1

a total of 12,215 in 1872, and of 12,261 in 1876.

Of 5,688 men entering into the composition of the Irregular Regiments of the Central India Force in 1876, 659 were Sikhs, 1,679 Bheels and Mhairs, 600 Rajpoots or Brahmins, 2,068 other Hindoos,—a total of 5,006 Hindoos; 670 were Mahomedans, of whom 33 were Punjabees and 33 Trans-Indus Pathans; and the strength as above was completed by 12 Native Christians.

I have made these few remarks to call attention to the leading features only of the series of ten-year tables which are appended. For the last nine years the Bengal Medical Department has issued a report, in which the history of every regiment is published in detail year by year; and the information afforded by the medical officer of each corps is given either

Medical and sanitary history of each regiment of the Army published annually by the Medical Department.

at length or in summary. With the publication of the tenth volume of the series at the close of 1877, an opportunity will occur for reviewing on a basis of ten years' experience all matters relating to the medical history of the Native Army.

Fluctuation in Strength of the Native Army in the ten years. The chief causes of fluctuation.

For each station of the Presidency for the ten years, 1867-1876, the statistics of the Native Army have been arranged in a form similar to that in which the statistics of the British Troops are set forth for the ten years from 1860 to 1869. I have, however, considered it unnecessary to print these tables as a whole, and I have selected twelve typical examples for detailed illustration, and printed in summary only, the ten years' ratios for the principal stations. The examples given may be compared with the results for the provincial areas; and where the summarised ratios correspond closely with the stational or provincial type, it may be concluded that the items, of which they are the product, are not very dissimilar.

In conclusion, I may observe that a very large number of men are annually removed from the rolls of the Native Army for reasons which have no relation to the health of the soldier.

The Native Army of Bengal is a body in which great fluctuations occur. In these ten years, a strength equivalent to that of the whole army has disappeared, 58,000 men of the Regular Army and of the Punjab Frontier Force having in this time been removed from the rolls of their regiments. In the accompanying statement, Transfers account for 808 removals, Deaths for 10,047, and Invaliding for 15,271; while for non-medical reasons 31,839 men were sent away or took their discharge,—a total loss of 57,965.

Gain and Loss in Strength of the Native Army of the Bengal Presidency during the Ten Years from 1867 to 1876.

	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1867—76.	Average of the ten years.
Present with their Regiments at the beginning of each year	43,415	45,053	45,008	43,840	43,618	44,086	43,712	43,822	44,020	43,938	440,512	44,051
At their homes on furlough	650	447	1,188	429	485	141	232	310	221	356	4,459	446
At their homes on sick leave	525	587	416	396	332	349	417	414	503	446	4,385	438
Remaining sick in the hospitals of other Regiments	12	60	75	66	42	109	33	22	34	32	485	49
TOTAL	44,602	46,147	46,687	44,731	44,477	44,685	44,394	44,568	44,778	44,772	449,841	44,984
Additions.												
Transfers received from other Regiments	83	20	60	28	26	12	18	54	31	29	361	36
Recruits received	6,277	5,071	2,494	3,738	4,250	3,651	5,427	4,661	4,373	4,206	44,148	4,415
Deserters rejoined	13	7	12	5	8	2	8	11	4	4	74	7
TOTAL GAIN	6,373	5,098	2,566	3,771	4,284	3,665	5,453	4,726	4,408	4,239	44,583	4,458
Permanent Loss.												
Deaths at head quarters and in detachments	511	444	693	632	592	647	547	425	530	446	5,467	547
Died while on furlough	121	156	98	83	63	68	83	70	53	85	880	88
Died while on sick leave	131	177	147	154	137	177	124	105	120	161	1,433	143
TOTAL DEATHS	763	777	938	869	792	892	754	600	703	692	7,780	778
Invalided for discharge	779	651	904	715	1,040	1,161	2,060	1,738	1,595	1,454	12,097	1,210
Transfers given to other Regiments	239	67	33	34	21	27	27	47	39	40	574	57
Otherwise discharged	2,868	3,080	2,173	2,006	1,834	1,648	1,937	1,600	1,727	1,731	23,974	2,397
Desertions, struck off for bad conduct, &c.			470	375	349	413	449	484	412	418		
TOTAL LOSS	4,649	4,575	4,518	3,999	4,036	4,141	5,227	4,469	4,476	4,335	44,425	4,442
Remaining on the Regimental rolls on the end of each year	46,326	46,670	44,735	44,503	44,725	44,209	44,620	44,825	44,710	44,676	449,999	45,000

Gain and Loss in Strength of the Punjab Frontier Force during the Ten Years from 1867 to 1876.

	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1867—76.	Average of the ten years.
Strength borne on the rolls at the beginning of each year	11,967	12,374	12,478	12,152	12,239	12,369	12,244	12,244	12,311	12,278	122,656	12,266
Additions received	1,579	1,396	1,116	1,635	1,603	1,104	1,457	1,526	1,301	1,155	13,872	1,387
TOTAL	13,546	13,770	13,594	13,787	13,842	13,473	13,701	13,770	13,612	13,433	136,528	13,653
Deaths at head quarters and in detachments	113	77	259	164	181	212	138	121	192	133	1,590	159
Died while on furlough, sick leave, &c.	76	57	71	66	76	77	86	46	76	46	677	68
Transfers given to other Regiments	...	18	45	25	33	24	16	35	20	18	234	23
Invalided for discharge	168	247	255	270	260	234	552	470	399	319	3,174	317
Otherwise discharged	776	954	744	1,011	943	690	668	788	646	645	7,865	787
TOTAL	1,133	1,353	1,374	1,536	1,493	1,237	1,460	1,460	1,333	1,161	13,540	1,354
Remaining on the Regimental rolls on the end of each year	12,413	12,417	12,220	12,251	12,349	12,236	12,241	12,310	12,279	12,272	122,988	12,299

Gain and Loss in Strength of the Central India Force during the Ten Years from 1867 to 1876.

	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1867—76.	Average of the ten years.
Strength borne on the rolls at the beginning of each year	4,816	4,823	4,928	4,917	5,603	5,605	5,615	5,618	5,683	5,692	53,300	5,330
Additions received	414	460	373	315	334	464	383	425	348	337	3,853	385
TOTAL	5,230	5,283	5,301	5,232	5,937	6,069	5,998	6,043	6,031	6,029	57,153	5,715
Deaths at head quarters and in detachments	23	28	78	44	55	56	50	41	46	40	461	46
Died while on furlough, sick leave, &c.	20	14	11	8	27	20	23	11	9	13	156	16
Invalided for discharge	42	59	41	65	48	155	106	107	87	103	813	81
Otherwise discharged	319	252	254	197	212	221	200	202	196	185	2,238	224
TOTAL	404	353	384	314	342	452	379	361	338	341	3,668	367
Remaining on the Regimental rolls on the end of each year	4,826	4,930	4,917	4,918	5,595	5,617	5,619	5,682	5,693	5,688	53,485	5,348

N

APPENDIX TO SECTION II.

TEN-YEAR STANDARD

FOR

THE NATIVE ARMY OF THE BENGAL PRESIDENCY

BASED ON

THE STATISTICS OF THE YEARS FROM 1867 TO 1876.

TABLES I—XLIX.

CONTENTS.

I.—STATISTICS OF PROVINCES, 1867—76.

Table showing in the Aggregate the Sickness and Mortality of the Native Army of the Bengal Presidency during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month I

Parallel Tables for Provinces.

Bengal Proper and Assam III
Gangetic Provinces and Oudh V
Meerut and Rohilcund VII
Agra and Central India IX
Punjab XI
Punjab Frontier Force XIII
Central India Force XV

Tables II, IV, VI, VIII, X, XII, XIV, and XVI give the Annual Ratios of Sickness and Mortality for each Year of the Ten-year period for the Presidency and the different Provinces, and for the Punjab Frontier Force and Central India Force, and show the Monthly Admission-rate and Daily Sick-rate for each Month of the Ten years.

Comparative Statement of the Ratios of Sickness and Mortality in the different Provinces of the Presidency and in the Punjab and Central India Force, on the Average of the Ten-year period XVII

II.—GENERAL STATISTICS OF STATIONS.

Statement showing the Annual Ratios of Sickness and Mortality on the Average of the Ten Years, of the nine chief stations of Bengal Proper and Assam occupied by Native Troops during the ten-year period 1867—76: Fort William, Alipore, Barrackpore, Dacca, Cachar, Shillong, Gauhati, Dibrugarh, and Baxa XVIII

Statement showing the Annual Ratios of Sickness and Mortality on the average of the ten years of the eight chief stations of the Gangetic Provinces and Oudh: Bhagalpur, Dinapore, Benares, Gorakhpur, Fyzabad, Lucknow, Cawnpore and Allahabad XIX

Statement showing the Annual Ratios of Sickness and Mortality on the average of the ten years of the eight chief stations of Rohilcund, Meerut, Agra and Central India: Bareilly, Roorkee, Dehra Dun, Meerut, Delhi, Agra, Morar and Jhansi XX

Statement showing the Annual Ratios of Sickness and Mortality on the average of the ten years of the chief stations of the Punjab from Umballa to Amritsar . XXI

Statement showing the Annual Ratios of Sickness and Mortality on the average of the ten years of the chief stations of the Punjab from Jhelum to Peshawar, and the three Hill Stations occupied by Goorkha Regiments . . . XXII

Statement showing the Annual Ratios of Sickness and Mortality on the average of the ten years of the chief stations on the North-Western Frontier occupied by the Punjab Force XXIII

III.—STATISTICS OF SELECTED STATIONS.

Table showing the aggregate of the Sickness and Mortality among the Native Troops occupying Barrackpore during the ten years from 1867 to 1876, and the prevalence of the principal diseases in each month. XXIV

General Statistics of Sickness and Mortality of the Native Troops occupying Barrackpore in each year of the ten years from 1867 to 1876 XXV

General Statistics of Sickness and Mortality of the Native Troops occupying Dibrugarh and outposts . . . . . XXVI and XXVII

General Statistics of Sickness and Mortality of the Native Troops occupying Baxa . XXVIII and XXIX

General Statistics of Sickness and Mortality of the Native Troops occupying Lucknow . . . . . XXX and XXXI

General Statistics of Sickness and Mortality of the Native Troops occupying Bareilly XXXII and XXXIII

General Statistics of Sickness and Mortality of the Native Troops occupying Morar . XXXIV and XXXV

General Statistics of Sickness and Mortality of the Native Troops occupying Ferozepore . . . . . XXXVI and XXXVII

General Statistics of Sickness and Mortality of the Native Troops occupying Meean Meer . . . . . XXXVIII and XXXIX
General Statistics of Sickness and Mortality of the Native Troops occupying Jhelum XL and XLI
General Statistics of Sickness and Mortality of the Native Troops occupying Peshawar XLII and XLIII
General Statistics of Sickness and Mortality of the Native Troops occupying Kohat XLIV and XLV
General Statistics of Sickness and Mortality of the Native Troops occupying Dera Ghazi Khan . . . . . XLVI and XLVII

IV.—DISTRIBUTION OF THE CHOLERA OF THE NATIVE ARMY, 1867—76.

Prevalence of cholera in each month of the Ten-year period, and the distribution of the disease by stations and provinces XLVIII

V.—DEATHS OF THE NATIVE ARMY DETAILED BY STATIONS.

Mortality in each station, and the causes of deaths, during the ten-year period 1867—76 XLIX

I.—NATIVE ARMY of the BENGAL PRESIDENCY—STATISTICS of PROVINCES, 1867—76.

I.—STATISTICS OF PROVINCES, 1867—76.

I.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS of the BENGAL PRESIDENCY during the Ten-year period 1867–76, and the prevalence of the principal Diseases in each Month of the period.

(This statement is for the Regular Native Army only, and for men present with their Regiments from month to month during the period.)

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital. Cholera.	Smallpox.	Enteric Fever (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	425,886	16,978	39·9	672	1·58	31	4		76	54	4	54	60	3	14	237	12	34	5	8	34	7	33
February	426,506	16,000	37·5	453	1·06	33	9	2	58	42	6	31	26	2	8	135	7	20	4	4	15	10	22
March	424,709	15,143	35·7	557	1·31	135	3	1	59	41	4	34	32	12	9	103	3	30	3	3	23	5	46
April	384,449	13,362	34·7	414	1·08	75	20	3	28	34	8	15	24	6	10	70	8	41	2	3	20	4	24
May	367,276	12,536	34·1	381	1·04	91	26	3	26	33	13	25	13	2	7	53	8	19	1	2	10	5	31
June	366,947	12,336	33·6	310	·84	61	11	3	26	37	18	16	16	4	3	29	2	23	4	...	9	8	21
July	373,869	13,044	34·9	310	·83	59	3	2	23	33	9	23	21	4	5	28	8	25	...	...	6	9	31
August	374,863	15,660	41·8	318	·85	89	1	1	35	33	5	22	23	4	11	27	5	21	5	...	6	7	23
September	375,612	20,120	53·6	383	1·02	124	...	6	26	29	6	39	18	6	9	21	8	15	2	9	11	5	30
October	385,931	23,569	61·1	462	1·20	81	...	1	69	37	3	62	31	6	12	33	5	29	2	9	15	6	69
November	414,979	23,546	56·7	529	1·27	22	...	5	115	43	5	50	46	3	10	95	6	24	4	9	23	9	52
December	419,842	19,224	45·8	678	1·61	44	2	1	93	42	4	75	58	9	12	184	8	24	5	10	33	8	41
						835	79	28	634	458	85	446	347	61	110	1,015	89	305	37	57	205	83	392
						Died per 1,000 of the Average Strength.																	
For the ten years ...	395,081	16,702	42·5	5,467	13·84	2·12	·20	2·84			·22	1·13	·88	·15	·28	2·57	·20	·77	·09	·14	·52	·21	·99

Absent Deaths, 2,282. Ratio of 7,749 Deaths, 17·25 per 1,000 of the Total Regimental Strength.

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out each hund cases treat
Dengue	3	...	1	214	420	273	403	767	1,635	690	141	19	4,566*	11·6	.....
Cholera	42	66	187	148	157	126	143	141	218	120	37	56	1,451	3·7	57
Smallpox	59	64	117	121	68	48	5	1	2	2	6	27	520	1·3	15
Enteric Fever (1872—76) ...	1	4	3	3	6	5	5	7	9	4	7	3	57	·1	49
Fever, Intermittent ...	13,209	10,003	11,181	12,884	14,140	13,563	16,381	26,466	42,365	52,533	30,301	20,995	273,021	691·1	·2
Fevers, Remittent and Continued	297	219	335	399	546	398	397	428	579	550	394	286	4,948	12·5	9
Apoplexy	4	10	11	16	27	56	14	10	11	7	6	5	177	·5	48
Dysentery	2,841	1,988	2,082	2,274	1,957	1,805	1,917	2,812	2,796	3,192	3,378	3,423	30,465	77·1	17
Diarrhœa	1,546	1,069	1,353	1,486	1,455	1,579	1,648	1,793	1,528	1,478	1,502	1,699	18,226	46·1	19
Hepatitis	77	58	77	64	71	70	78	62	61	56	63	66	803	2·0	7
Spleen Disease	370	291	291	232	277	259	260	310	578	561	628	523	4,580	11·6	2
Respiratory Diseases ...	2,834	2,410	1,974	1,311	1,059	841	887	942	942	1,255	1,872	2,581	18,908	47·9	5
Phthisis Pulmonalis ...	62	77	90	89	72	63	78	78	62	65	70	61	867	2·2	33
Dropsy	19	14	7	7	10	6	16	9	16	13	19	17	153	·4	29
Scurry	86	96	70	74	58	61	81	55	103	148	130	96	1,084	2·7	6
Rheumatism	2,734	2,567	2,918	1,504	1,431	1,445	1,548	1,593	1,482	1,568	2,117	2,283	22,320	56·5	
Venereal Diseases... ...	1,424	1,275	1,449	1,212	1,184	1,100	1,249	1,165	1,096	1,115	1,279	1,297	14,945	37·8	
Eye Diseases	521	441	642	870	1,097	926	1,089	1,285	1,102	901	722	502	10,068	25·5	
Abscess and Ulcer ...	3,531	2,749	2,655	2,438	2,570	3,207	4,148	4,332	3,446	3,211	3,396	3,255	38,929	98·5	
Wounds and Accidents ...	4,784	4,024	4,131	3,610	3,742	3,457	3,761	4,221	3,681	4,193	4,951	4,552	48,727	123·3	
All other Causes	3,693	3,494	3,959	3,466	3,219	3,202	3,491	3,731	3,506	3,578	3,755	3,507	42,601	107·8	
	37,737	30,790	32,663	32,422	33,516	32,599	37,590	50,208	65,221	75,490	63,864	45,313	537,413		
	Admitted per 1,000 of the Average Strength in each Month.														
	8·86	7·2·2	7·6·9	8·4·3	9·1·3	8·8·8	10·0·5	13·3·9	17·3·6	19·5·6	15·3·9	10·7·9	136·0·2		

* Excepting 19 cases which occurred in 1873, these Admissions were caused by the epidemic Dengue of 1872.

I.—STATISTICS OF PROVINCES, 1867—76.

II.

GENERAL STATISTICS of SICKNESS and MORTALITY among the REGULAR NATIVE TROOPS of the BENGAL PRESIDENCY for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	39,114	40·7	40·7	40·3	38·3	37·2	38·1	40·3	42·8	58·0	71·3	60·7	48·2	46·9
1868	40,770	37·5	36·9	34·5	31·9	33·0	35·4	32·4	37·6	39·9	44·1	48·6	43·6	37·8
1869	40,380	38·8	35·4	36·7	34·9	35·1	35·0	35·2	43·9	56·7	83·0	77·0	52·8	47·9
1870	39,783	42·8	36·4	33·5	32·6	33·6	32·3	33·4	44·6	62·7	73·1	62·1	50·8	44·9
1871	39,339	44·4	37·9	35·1	37·1	36·2	33·9	36·2	43·3	49·0	49·7	47·5	48·6	41·7
1872	39,179	44·9	41·5	41·4	40·0	35·6	34·0	34·1	43·1	62·8	61·0	55·2	42·5	44·7
1873	39,304	37·7	36·1	34·5	34·3	35·3	33·6	33·8	42·2	54·6	56·8	52·5	42·9	41·3
1874	38,851	35·6	34·9	33·9	33·0	35·0	37·0	39·8	46·2	51·4	56·9	50·6	45·2	41·4
1875	39,125	41·4	40·0	35·9	35·1	30·7	29·6	33·0	35·6	46·5	55·2	55·3	44·5	40·4
1876	39,494	34·8	35·5	32·8	30·2	29·6	29·2	29·1	38·6	55·2	60·9	52·2	38·8	39·0
1867—76 ...	395,081	39·9	37·5	35·7	34·7	34·1	33·6	34·9	41·8	53·6	61·1	56·7	45·8	42·5

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	96·0	79·8	78·9	103·0	86·3	89·7	127·8	109·3	179·3	255·9	145·1	105·4	1447·7
1868	84·5	75·7	85·7	73·2	85·9	106·5	83·2	100·9	127·5	124·7	119·2	109·7	1175·8
1869	71·4	64·5	90·6	83·2	91·2	107·5	93·7	158·2	175·0	241·7	229·2	105·7	1501·1
1870	90·4	68·1	85·6	77·1	111·6	82·6	104·3	173·9	192·3	204·9	207·3	109·3	1492·3
1871	102·4	68·1	76·4	87·9	116·6	86·1	97·9	140·2	128·3	109·5	115·5	120·0	1278·2
1872	106·2	86·0	82·6	111·9	89·5	84·0	111·2	133·8	216·4	231·2	144·2	109·1	1496·0
1873	93·5	67·4	65·4	92·5	82·9	79·6	103·3	119·0	207·8	162·7	123·9	99·9	1288·5
1874	76·2	58·6	73·3	72·7	84·1	88·8	123·4	127·6	173·6	159·1	124·6	117·9	1206·5
1875	80·6	63·7	75·2	74·6	73·3	87·8	79·9	119·0	135·1	162·7	181·6	109·5	1233·2
1876	86·2	90·1	61·3	68·3	90·6	74·9	82·9	161·5	205·1	254·9	148·2	101·6	1414·8
1867—76 ...	88·6	72·2	76·9	84·3	91·3	88·8	100·5	133·9	173·6	195·6	153·9	107·9	1369·2

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Phthisis and Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Disease.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents	All other Causes.	
1867	6·2	730·7	13·3	·4	80·5	60·8	1·8	8·3	35·7	1·3	·6	1·7	63·4	45·5	24·7	121·5	131·0	120·3	1447·7
1868	2·3	517·3	10·2	·3	73·8	48·6	2·4	6·4	39·0	1·4	·3	3·9	58·0	43·2	21·7	105·4	122·6	119·0	1175·8
1869	8·5	851·3	15·0	1·3	82·5	59·1	1·8	10·2	34·5	1·8	·5	4·2	52·5	46·9	24·9	95·7	104·1	106·3	1501·1
1870	1·3	826·7	11·2	·5	87·4	50·8	1·8	24·3	48·6	2·4	·5	2·7	55·9	54·8	25·9	101·7	110·7	106·0	1492·3
1871	1·3	614·9	12·5	·2	70·0	46·8	1·7	11·6	54·6	3·9	·4	3·4	57·4	30·1	26·1	106·2	134·8	104·1	1278·2
1872	7·0	682·0	13·9	·3	94·6	55·5	2·3	11·7	57·5	2·8	·2	3·3	57·6	29·4	27·4	99·4	121·4	235·7	1496·0
1873	2·1	656·5	10·7	·4	68·4	33·7	2·6	10·3	51·5	2·0	·6	2·7	62·9	33·0	26·2	88·5	118·3	110·1	1288·5
1874	1·5	631·7	12·4	·2	61·1	35·0	2·1	11·9	62·0	1·9	·4	1·8	57·6	43·5	25·2	93·7	129·5	105·0	1206·5
1875	3·4	589·0	9·9	·6	72·7	35·7	2·1	11·9	51·1	2·7	·3	1·9	46·9	31·3	28·6	97·6	131·7	105·9	1233·2
1876	3·0	811·5	9·0	·5	70·9	34·8	1·5	9·6	54·5	2·7	·2	1·6	53·6	39·5	24·3	81·5	129·8	95·3	1414·8
1867—76 ...	3·7	691·1	12·6	·5	77·1	46·1	2·0	11·6	47·9	2·2	·4	2·7	56·5	37·8	25·5	98·5	123·3	120·7	1369·2

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.														Death-rate including Absent Deaths, calculated on the Total Regimental Strength.
	A Cholera.	B All other causes.	C All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Diseases.	Phthisis and Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	3·17	9·89	13·06	3·17	3·04	·23	1·77	·23	·26	·97	·26	·61	·10	·15	·38	1·25	·64	16·77
1868	1·10	9·79	10·89	1·10	2·38	·17	1·97	·17	·22	1·35	·22	·52	·10	·19	·74	1·72	·54	16·23
1869	4·89	12·40	17·29	4·89	3·66	·55	2·47	·20	·25	1·97	·18	·69	·10	·27	·35	1·17	·63	29·14
1870	·75	15·14	15·89	·75	4·65	·23	3·09	·13	·25	3·22	·20	·88	·17	·17	·48	1·11	·65	19·43
1871	·84	14·20	15·04	·84	2·64	·13	2·39	·20	·43	4·19	·20	1·04	·05	·08	·48	1·30	1·02	17·81
1872	4·64	11·87	16·51	4·64	2·17	·10	1·91	·13	·28	3·09	·08	·94	·02	·18	·06	1·08	1·23	29·08
1873	1·12	12·80	13·92	1·12	2·92	·10	1·91	·15	·21	3·15	·38	·79	·21	·18	·43	1·81	·56	17·01
1874	1·11	9·83	10·94	1·11	2·19	·13	1·44	·15	·08	2·32	·15	·67	·10	...	·64	1·23	·73	13·50
1875	1·69	11·86	13·55	1·69	2·56	·33	1·74	·10	·56	3·17	·15	·77	·03	·10	·36	1·15	·84	15·70
1876	1·85	9·44	11·29	1·85	2·10	·18	1·47	·08	·25	2·30	·20	·91	·05	·10	·66	·61	·53	15·32
1867—76 ...	2·12	11·72	13·84	2·12	2·84	·22	2·01	·15	·28	2·57	·20	·77	·09	·14	·52	1·19	·74	17·25

I.—STATISTICS OF PROVINCES, 1867—76.

III.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS serving in BENGAL PROPER and in ASSAM during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Small-pox.	Enteric Fever (1872—76).	Fevers, Intermittent.	Fever, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	76,544	3,811	49·8	150	1·96	17	...	...	14	9	2	16	13	...	4	25	4	6	1	6	13	2	10	8
February	77,010	3,721	48·3	105	1·36	8	...	1	6	10	1	10	10	...	5	15	4	4	2	4	1	0	7	12
March	78,497	3,688	47·1	170	2·17	48	2	1	18	9	2	11	11	3	5	16	2	11	...	2	11	...	15	3
April	76,261	3,630	47·6	138	1·81	42	9	...	8	5	4	8	13	1	5	9	...	12	1	2	8	...	5	6
May	73,075	3,472	47·5	122	1·67	46	4	1	6	8	2	8	5	...	4	11	4	4	1	1	5	...	8	4
June	72,416	3,565	49·2	91	1·26	16	5	2	8	11	1	8	6	1	2	9	...	7	2	...	1	1	6	5
July	72,704	3,842	52·8	77	1·06	7	...	1	7	11	1	13	5	1	3	6	1	7	...	...	1	...	8	9
August	73,405	4,063	55·7	87	1·18	5	...	1	13	13	...	14	13	...	3	7	1	4	3	...	...	...	6	4
September	73,503	4,289	58·3	111	1·51	5	...	5	9	11	3	15	12	3	6	5	3	2	1	1	3	2	12	8
October	74,641	4,526	60·6	121	1·62	8	...	1	10	13	2	19	12	1	7	4	2	11	...	7	5	2	13	4
November	75,741	4,721	64·3	110	1·50	10	...	3	13	7	1	12	14	1	6	9	1	6	...	8	6	1	9	3
December	72,958	4,061	55·7	145	1·99	19	...	...	10	7	1	23	13	2	5	16	2	9	1	9	15	1	10	2
						231	20	16	122	114	20	157	127	13	55	132	23	83	12	66	69	14	100	64
						Died per 1,000 of the Average Strength.																		
For the ten years ...	74,585	3,952	53·0	1,427	19·13	3·10	·27	3·38			·27	2·10	1·70	·17	·74	1·77	·31	1·11	·16	·62	·92	·19	1·46	·86

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	1	214	418	273	399	240	69	43	14	...	1,671	22·4	...
Cholera	20	14	74	88	79	40	35	13	10	20	16	28	437	5·9	52·86
Smallpox ...	4	9	27	33	17	12	1	...	...	...	1	2	106	1·4	18·87
Enteric Fever (1872-76) ...	...	3	3	...	3	2	3	5	8	2	4	...	33	·4	18·18
Fever, Intermittent ...	2,663	2,249	2,491	3,340	3,428	3,559	4,850	5,743	5,374	5,883	5,651	3,935	49,166	659·2	·25
Fevers, Remittent and Continued	55	68	77	91	158	159	163	139	150	137	128	73	1,396	18·7	8·17
Apoplexy	1	1	2	5	2	2	1	1	3	4	2	2	26	·3	76·92
Dysentery	1,164	819	809	1,022	867	825	800	743	707	835	794	900	10,306	139·0	1·70
Diarrhœa	591	419	494	549	619	586	587	595	514	471	480	471	6,287	84·3	1·70
Hepatitis	15	13	16	18	21	29	24	14	16	13	12	13	195	2·6	6·67
Spleen Disease	107	99	86	78	109	94	100	133	133	125	118	101	1,283	17·2	4·29
Respiratory Diseases ...	581	475	451	374	310	267	284	304	336	362	427	499	4,670	62·6	2·83
Phthisis Pulmonalis ...	15	22	15	23	20	17	15	26	24	25	14	16	232	3·1	35·78
Dropsy	8	3	2	1	4	4	8	4	6	5	4	6	55	·7	21·82
Scurvy	38	51	38	42	35	25	42	19	48	107	75	61	581	7·8	7·92
Rheumatism	485	468	437	347	332	315	336	343	379	419	453	410	4,724	63·3	
Venereal Diseases ...	238	232	274	233	233	197	250	224	205	208	201	187	2,682	36·0	
Eye Diseases	73	76	165	104	78	108	130	120	145	137	89	84	1,208	16·9	
Abscess and Ulcer ...	630	506	484	532	544	575	635	621	559	526	506	453	6,561	88·0	·58
Wounds and Accidents ...	727	718	808	776	798	712	773	796	751	833	858	729	9,209	124·3	
All other Causes... ...	983	927	1,136	1,029	1,067	975	1,054	1,054	1,034	1,251	1,102	968	12,580	168·7	
	8,398	7,172	7,911	8,890	9,132	8,767	10,490	13,046	10,471	11,406	10,957	8,938	113,578		
	Admitted per 1,000 of the Average Strength in each Month.														
	109·7	93·1	100·8	116·6	125·0	121·1	144·1	159·3	142·3	152·8	149·1	122·5	1522·8		

I.—STATISTICS OF PROVINCES, 1867—76.

IV.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in BENGAL PROPER and in ASSAM for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	8,115	51·2	52·5	55·1	54·0	51·5	52·5	55·5	62·1	69·5	68·1	73·2	62·3	58·7
1868	7,961	48·3	49·2	46·2	41·1	39·6	40·5	40·4	44·6	46·5	55·7	63·9	56·9	47·2
1869	7,902	51·0	45·6	44·5	46·8	46·5	46·2	50·2	46·9	53·4	56·8	60·6	48·7	49·8
1870	7,248	47·1	41·3	36·7	35·7	36·9	40·4	48·9	56·5	56·1	51·9	49·6	46·5	45·5
1871	7,203	47·4	45·2	46·9	49·3	53·8	61·3	60·8	64·6	65·7	62·6	71·7	61·4	57·2
1872	6,960	64·3	65·2	70·1	62·6	58·0	56·3	54·3	56·9	59·7	56·7	58·3	50·5	59·0
1873	7,260	48·9	47·6	46·3	43·1	50·1	48·2	53·9	57·0	52·8	52·1	52·7	49·2	50·0
1874	7,591	40·2	42·6	44·2	51·5	59·2	62·2	66·7	66·0	61·0	58·2	59·5	57·1	55·5
1875	7,601	53·8	51·8	46·1	46·8	49·1	42·5	52·1	53·2	63·2	80·9	86·9	70·8	57·6
1876	7,484	49·9	46·0	39·1	37·9	39·2	42·4	45·2	49·2	54·4	62·7	61·6	56·6	48·8
1867—76	74,585	49·8	48·3	47·1	47·6	47·5	49·2	53·8	55·7	58·3	60·6	64·3	56·7	53·0

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	113·3	92·3	90·5	130·6	130·9	101·6	156·6	137·1	141·9	161·7	130·0	125·3	1496·0
1868	103·7	90·2	110·1	89·3	92·2	105·9	98·8	111·6	129·6	133·5	121·5	105·9	1296·7
1869	94·6	96·8	118·3	107·1	116·7	127·1	119·3	121·2	117·5	121·8	127·9	95·4	1417·2
1870	115·5	80·8	103·1	81·3	121·0	105·8	143·6	200·8	138·1	123·4	150·9	100·6	1400·0
1871	119·0	96·6	105·6	122·7	187·7	151·6	152·8	181·5	162·3	183·8	141·6	133·3	1731·0
1872	123·9	108·1	107·8	204·1	168·0	150·1	186·3	145·9	125·2	102·7	147·4	136·3	1788·2
1873	119·4	91·8	87·4	115·7	139·8	113·9	167·6	126·9	152·1	120·7	124·9	122·0	1445·8
1874	98·4	76·4	112·8	128·5	136·0	134·2	163·0	150·2	151·1	117·1	124·7	153·3	1539·4
1875	92·6	80·9	94·7	91·2	88·2	118·7	127·9	162·6	153·6	180·3	204·6	125·2	1525·3
1876	121·4	109·1	75·3	93·6	124·9	105·2	127·7	178·8	156·1	218·4	150·0	128·1	1579·0
1867—76	109·7	93·1	100·8	116·6	125·0	121·1	144·1	150·3	142·3	152·8	140·1	122·5	1522·8

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	10·0	627·5	14·3	·1	161·6	90·6	2·2	12·1	43·7	1·1	1·2	4·6	61·1	55·2	14·3	114·5	117·9	155·0	1496·0
1868	6·5	497·8	9·6	·5	124·6	79·3	2·9	8·2	65·3	1·6	·6	13·4	77·8	41·2	19·2	91·8	98·8	155·6	1296·7
1869	8·8	591·3	14·1	·4	152·2	94·9	3·2	19·7	45·8	1·9	·8	10·7	69·4	34·1	18·5	71·7	117·4	160·3	1417·2
1870	5·2	65·4	9·7	·1	130·2	72·3	2·8	18·6	65·8	3·6	1·4	6·5	63·8	31·1	18·1	85·1	118·4	165·9	1400·0
1871	2·0	749·8	24·3	...	164·7	109·7	2·9	19·6	78·9	4·7	·7	10·5	69·1	35·5	22·2	93·4	176·6	175·4	1731·0
1872	5·9	580·3	31·2	·4	156·3	112·4	3·2	17·4	77·8	6·5	2	8·9	67·9	30·0	20·0	82·0	147·6	143·3	1788·2
1873	5·4	695·9	41·0	·3	109·9	58·0	4·1	14·0	64·3	3·7	1·3	7·3	58·0	30·2	14·2	88·1	90·1	170·6	1445·8
1874	6·9	688·6	22·0	...	135·0	81·3	2·2	19·8	56·4	2·6	·5	4·5	68·9	33·2	14·2	87·5	129·4	177·4	1539·4
1875	4·7	668·9	12·5	1·3	132·1	71·8	1·7	27·5	65·7	2·6	·3	6·6	47·1	39·5	18·3	84·3	132·6	207·9	1525·3
1876	2·7	849·7	16·0	·3	124·1	65·9	1·1	16·0	66·3	3·5	·3	5·1	59·4	27·6	12·3	78·1	119·3	144·3	1579·0
1867—76	5·9	659·2	19·1	·3	130·9	84·3	2·6	17·2	62·6	3·1	·7	7·8	63·3	36·0	16·9	88·0	124·3	152·5	1522·8

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.													
	A. Cholera.	B. All other causes.	C. All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	4·56	15·77	20·33	4·56	4·19	...	3·20	·37	·74	·98	·62	·74	·12	·74	·62	2·39	·86
1868	2·51	18·59	21·10	2·51	3·51	·38	3·76	·50	·50	2·89	·38	1·13	·38	·88	1·51	2·26	·51
1869	4·43	16·34	20·77	4·43	3·89	·40	3·63	·40	·80	2·15	·13	·80	·13	1·21	·40	1·20	1·20
1870	3·03	12·56	15·59	3·03	2·34	...	3·86	...	·14	·97	·28	1·52	·14	·83	·41	·97	·83
1871	1·25	17·08	18·33	1·25	3·33	...	4·18	...	·83	2·09	·41	1·53	...	·28	·83	1·94	1·66
1872	2·70	13·66	16·36	2·70	3·16	·15	2·85	...	·15	1·50	...	1·50	·15	·90	1·20	·60	1·50
1873	2·76	18·32	21·08	2·76	4·27	·28	3·58	·14	·14	3·44	·55	·83	·28	·55	·55	3·39	·41
1874	4·74	14·36	19·10	4·74	3·16	·13	4·87	·13	·40	·66	·13	1·19	·13	...	1·45	1·71	·40
1875	2·76	18·82	21·58	2·76	2·89	1·18	4·34	...	2·63	1·18	·26	·92	...	·53	·66	1·84	2·37
1876	2·01	14·42	16·43	2·01	2·94	·13	3·75	·13	·93	1·87	·27	1·07	...	·27	1·60	·66	·80
1867—76	3·10	16·03	19·13	3·10	3·38	·27	3·99	·17	·74	1·77	·31	1·11	·16	·62	·92	1·73	1·05

I.—STATISTICS OF PROVINCES, 1867—76.

V.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS serving in the DINAPORE, BENARES and CAWNPORE DISTRICTS and in OUDH, during the Ten-year period 1867—76 and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	67,677	2,345	34·6	47	·69	...	...	...	5	2	1	6	2	...	5	14	...	3	1	...	3	1	3	1
February	71,164	2,470	34·7	34	·48	2	2	1	3	3	1	11	...	...	...	7	1	...	1	...	1	1	...	...
March	73,280	2,522	34·4	53	·72	2	1	...	5	7	2	8	...	3	3	10	...	1	1	...	1	...	3	4
April	67,098	2,231	33·2	47	·70	12	4	...	2	3	1	3	...	2	1	3	...	6	...	...	1	...	5	2
May	65,260	2,024	31·0	61	·93	17	12	...	2	6	2	3	...	...	2	6	2	2	...	...	2	...	5	...
June	65,846	1,921	29·2	43	·65	11	4	...	3	4	2	2	1	1	1	3	...	3	1	...	3	3	3	2
July	66,197	2,067	30·9	33	·49	11	...	...	...	4	1	...	1	1	...	3	...	3	...	...	3	4	4	...
August	66,971	2,405	35·9	66	·99	30	...	...	4	3	...	2	3	...	2	4	2	6	...	...	1	1	7	2
September	66,335	2,708	40·8	26	·39	4	...	...	1	1	1	1	1	1	1	2	...	5	1	...	1	...	2	4
October	67,303	3,006	44·7	51	·76	5	...	...	10	1	...	6	1	2	1	4	2	7	...	...	...	1	8	3
November	67,919	2,860	42·1	48	·71	5	...	...	8	6	...	6	4	1	...	8	...	4	...	...	...	1	4	...
December	66,382	2,495	37·6	58	·87	2	1	1	8	5	1	5	3	2	2	14	...	5	1	...	1	1	4	2
						101	24	2	51	45	12	53	29	13	18	78	7	46	6	...	10	13	48	20
						Died per 1,000 of the Average Strength.																		
For the ten years ...	67,678	2,421	35·8	567	8·38	1·49	·35	1·45			·18	·78	·30	·19	·27	1·15	·10	·68	·09	...	·15	·19	·71	·30

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	1	...	...	...	2	...	4	413	630	449	88	8	1,595	23·6	.....
Cholera	...	9	9	21	27	17	18	42	9	11	6	2	171	2·5	59·06
Smallpox	9	15	48	29	20	7	...	...	1	...	...	6	135	2·0	17·78
Enteric Fever (1872—76) ...	1	1	...	...	...	...	...	...	...	...	...	1	3	.....	66·67
Fever, Intermittent ...	1,455	1,365	1,764	1,644	1,714	1,600	2,262	2,836	3,556	5,385	3,876	2,078	29,535	436·4	·17
Fevers, Remittent and Continued	34	53	57	57	54	46	41	50	65	74	61	27	619	9·2	7·27
Apoplexy	...	2	4	3	6	7	2	1	2	...	...	1	27	·4	44·45
Dysentery	225	265	314	305	213	183	226	420	381	355	420	367	3,684	54·4	1·26
Diarrhœa	103	130	237	214	178	197	181	278	158	140	142	147	2,105	31·1	11·71
Hepatitis	10	4	9	10	9	9	15	4	8	13	10	10	111	1·6	5·03
Spleen Disease	25	34	36	25	34	17	16	30	29	39	37	36	358	5·3	3·08
Respiratory Diseases ...	248	247	260	144	144	90	132	135	141	192	265	262	2,240	33·1	3·88
Phthisis Pulmonalis ...	7	12	21	16	12	18	14	16	12	13	18	14	173	2·6	26·59
Dropsy	...	4	...	2	3	...	1	...	2	2	2	2	18	·3	33·33
Scurvy	10	3	4	8	15	7	4	9	4	2	6	5	77	1·1	.....
Rheumatism	451	388	321	229	233	236	289	247	247	295	350	370	3,656	53·4	
Venereal Diseases ...	323	283	327	275	279	311	260	252	200	208	259	203	3,380	49·9	
Eye Diseases	102	76	140	204	207	194	242	234	179	150	117	89	1,934	28·6	·25
Abscess and Ulcer ...	596	488	503	472	481	644	823	768	612	596	514	531	7,028	103·9	
Wounds and Accidents ...	714	702	808	628	727	642	738	811	665	751	851	684	8,721	128·9	
All other Causes ...	485	546	679	491	476	501	541	579	558	487	519	453	6,315	93·3	
	4,799	4,587	5,570	4,777	4,844	4,756	5,809	7,125	7,519	9,162	7,541	5,386	71,845		
	Admitted per 1,000 of the Average Strength in each Month.														
	70·9	64·5	76·0	71·2	74·2	71·8	86·8	106·4	113·3	139·1	111·0	81·1	1061·6		

I.—STATISTICS OF PROVINCES, 1867—76.

VI.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in the DINAPORE, BENARES, and CAWNPORE DISTRICTS and in OUDH, for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Augt.	Sept.	Oct.	Nov.	Dec.	
1867	7,330	41·1	40·9	46·0	43·8	39·3	40·8	45·1	44·4	47·3	53·8	50·0	40·5	44·5
1868	7,856	35·2	38·9	38·9	33·5	32·2	29·3	28·2	30·1	34·5	35·9	30·9	27·8	33·2
1869	7,180	31·7	31·7	34·8	29·0	29·1	28·6	30·6	35·8	36·5	40·6	40·8	33·9	33·7
1870	6,742	30·5	30·7	37·3	29·9	26·6	23·7	28·7	33·6	40·0	63·1	55·7	47·1	38·9
1871	6,530	36·8	34·3	34·2	34·3	31·8	29·9	30·7	38·1	46·5	49·8	44·2	40·8	37·7
1872	5,900	34·8	33·0	27·5	33·0	26·6	27·5	27·8	40·7	53·7	55·9	44·0	39·4	37·1
1873	6,054	40·3	38·3	37·6	40·1	38·3	34·9	35·3	43·1	45·8	42·4	42·4	37·0	39·6
1874	6,357	35·0	33·8	34·3	34·6	32·3	27·9	31·9	39·6	39·4	39·3	36·9	35·2	35·1
1875	6,758	32·3	34·0	29·2	29·0	26·8	25·5	27·0	29·2	34·2	34·8	43·3	36·2	31·9
1876	6,381	27·1	23·6	27·3	25·5	25·9	22·4	27·8	25·8	32·0	31·7	30·6	24·6	26·6
1867—76 ...	67,678	34·6	34·7	34·4	33·2	31·0	29·2	30·9	35·9	40·8	44·7	42·1	37·6	35·8

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Augt.	Sept.	Oct.	Nov.	Dec.	
1867	90·2	81·9	85·5	91·1	74·0	80·1	128·2	101·7	114·1	173·8	121·6	96·2	1245·7
1868	84·5	90·2	99·5	79·2	92·1	103·6	73·2	87·0	105·1	89·5	85·1	100·1	1087·2
1869	53·1	56·9	97·6	65·4	63·0	77·8	72·5	111·5	79·7	106·2	131·3	60·3	975·6
1870	55·2	68·5	87·0	65·1	86·1	55·5	87·3	125·8	122·2	215·2	183·9	96·8	1251·3
1871	93·7	66·3	67·1	70·2	90·6	63·4	80·5	122·9	117·2	175·4	106·7	88·6	1117·7
1872	68·1	49·8	49·5	76·2	65·6	71·2	99·6	155·6	211·6	223·7	114·0	95·2	1285·2
1873	86·8	68·2	69·9	95·3	71·3	65·7	100·3	95·2	120·5	81·3	77·6	67·7	997·9
1874	61·3	47·8	62·9	51·4	59·7	56·9	107·1	91·5	109·1	94·6	73·0	70·9	880·6
1875	59·3	51·7	71·4	59·5	67·6	69·9	61·2	86·9	73·6	89·7	133·7	72·5	886·9
1876	49·8	57·5	57·6	55·7	65·3	49·8	61·8	95·6	92·1	122·5	76·1	61·2	847·7
1867—76 ...	70·9	64·5	76·0	71·2	74·2	71·8	86·8	106·4	113·3	136·1	111·0	81·1	1061·6

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																		Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fever.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	3·8	541·3	12·8	·3	55·3	42·2	1·4	5·2	26·8	·5	1·1	·3	63·6	55·9	25·4	134·7	171·5	113·8	1245·7
1868	1·4	421·1	13·5	·1	58·2	32·1	1·7	6·6	27·6	1·9	...	·9	52·6	42·8	19·2	127·8	155·3	124·4	1087·2
1869	5·9	394·6	11·1	·4	50·3	36·8	1·1	3·2	30·2	2·5	·1	·8	49·7	57·7	24·8	114·3	95·0	97·1	975·6
1870	1·0	634·5	6·2	·6	74·6	45·1	2·4	10·1	31·2	3·3	·3	1·8	45·7	48·9	32·9	110·2	99·1	103·4	1251·3
1871	1·4	520·8	11·0	·5	51·6	28·9	1·4	9·6	42·9	4·4	·5	4·9	62·9	33·8	32·5	106·3	120·5	107·7	1117·7
1872	3·6	446·2	11·5	...	63·7	25·6	2·0	4·8	37·0	2·9	1·2	1·8	54·7	29·3	31·4	93·2	103·6	361·7	1285·2
1873	2·6	361·3	5·5	1·4	58·8	27·5	1·7	4·0	30·0	2·9	·1	1·8	91·2	50·6	35·8	89·0	139·6	87·1	997·9
1874	·2	323·1	3·3	...	38·1	22·8	1·7	5·4	32·7	1·7	·3	...	44·9	76·1	27·7	92·3	135·6	74·7	880·6
1875	2·5	312·1	8·0	·4	56·4	26·7	2·2	1·8	28·8	3·0	...	·1	35·8	62·2	38·6	90·1	138·9	69·1	886·9
1876	2·8	369·1	7·5	·3	36·2	20·1	·9	2·0	37·8	2·8	...	...	32·0	49·1	21·8	89·6	118·5	75·3	847·7
1867—76 ...	2·5	436·4	9·2	·4	54·4	31·1	1·6	5·3	33·1	2·6	3	1·1	43·4	49·9	28·6	103·9	128·9	118·9	1061·6

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.														
	A. Cholera.	B. All other causes.	C. All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	2·73	7·64	10·37	2·73	3·00	·55	·55	·14	·41	·27	...	·27	·41	...	·14	1·08	·82	
1868	1·27	5·48	6·75	1·27	1·40	...	1·53	·13	·13	·38	...	·26	...	...	...	1·14	·51	
1869	2·65	6·96	9·61	2·65	1·11	·42	·84	·42	·28	1·11	·14	·69	...	...	...	1·11	·84	
1870	·89	10·09	10·98	·89	3·12	·15	2·37	·44	·44	1·48	...	·30	·15	...	·30	1·19	·15	
1871	·61	8·73	9·34	·61	·92	·31	1·99	·15	·77	1·84	...	1·38	·15	...	·15	·92	·15	
1872	2·37	6·96	9·33	2·37	·85	...	·51	·34	·51	1·86	·17	·85	...	...	·34	·68	·85	
1873	1·20	8·55	9·75	1·20	1·50	·15	·75	·15	·15	1·65	·45	1·05	...	...	...	2·25	·45	
1874	...	5·51	5·51	...	·79	...	·16	·16	...	1·25	...	·79	·16	...	·47	1·26	·47	
1875	1·34	3·71	5·05	1·34	·45	·15	1·19	...	...	·74	·15	·45	...	...	...	·60	...	
1876	1·72	5·33	7·05	1·72	1·10	...	·78	...	...	1·25	·16	·94	...	...	·16	·31	·63	
1867—76 ...	1·49	6·89	8·38	1·49	1·45	·18	1·08	·19	·27	1·15	·10	·68	·09	...	·15	1·06	·49	

I.—STATISTICS OF PROVINCES, 1867—76.

VII.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS serving in the MEERUT DISTRICT and in ROHILCUND during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever, (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	50,648	1,432	28·3	65 49	1·39	...	1	...	8	11	...	1	4	2	...	18	2	12	2	...	3	...	2	...
February	54,559	1,550	28·4	45	·99	...	...	...	4	10	1	1	1	1	...	18	1	3	...	...	3	1	3	3
March	55,881	1,567	28·0	56	·81	...	...	...	4	7	...	1	4	2	1	14	...	3	1	...	3	...	4	1
April	51,560	1,425	27·6	45	1·09	6	4	...	3	6	1	...	3	2	2	6	5	9	1	...	3	1	4	...
May	49,643	1,486	29·9	39	·91	8	6	1	3	4	2	4	2	...	1	7	...	2	...	...	1	1	2	1
June	49,344	1,430	29·0	44	·79	2	1	...	3	4	3	2	...	...	...	7	...	6	...	...	3	1	6	2
July	50,277	1,385	27·5	47	·88	2	1	...	6	2	1	6	4	1	1	5	2	5	...	...	1	1	2	4
August	50,417	1,766	35·0	35	·93	15	...	...	4	6	1	...	...	3	4	1	2	3	1	...	1	1	4	1
September	50,085	2,279	45·5	50	·70	5	...	...	3	5	...	3	1	1	1	2	3	4	...	1	2	...	3	1
October	50,627	2,153	42·5	53	·99	2	...	...	6	6	...	8	4	1	1	6	...	5	...	...	5	1	4	1
November	52,035	1,857	35·7	45	1·02	1	...	...	11	3	1	4	1	1	2	8	1	5	...	...	3	1	11	...
December	50,300	1,544	30·7		·89	1	...	...	8	4	...	6	1	...	...	8	1	3	1	...	4	3	4	1
						42	13	1	63	68	10	36	25	14	13	100	17	60	6	1	32	11	48	14
						Died per 1,000 of the Average Strength.																		
For the ten years ...	51,281	1,656	32·3	574	11·19	·82	·25	2·57			·20	·70	·49	·27	·25	1·95	·33	1·17	·12	·02	·62	·22	·94	·27

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	1	...	...	...	...	...	...	...	125	9	17	6	157	3·1	...
Cholera	...	...	3	12	11	6	4	20	10	4	1	1	72	1·4	58·33
Smallpox ...	22	9	7	28	16	10	2	...	...	1	1	13	109	2·1	11·93
Enteric Fever, (1872—76) ...	...	...	...	...	1	...	...	1	...	...	...	...	2	...	50·00
Fever, Intermittent ...	873	715	844	1,090	1,515	1,313	1,438	3,178	4,751	3,727	2,241	1,176	22,861	445·8	·28
Fevers, Remittent and Continued	45	54	70	82	86	57	70	79	143	124	43	44	897	17·5	7·13
Apoplexy	1	1	...	3	3	5	1	1	1	...	1	...	17	·3	58·83
Dysentery	148	81	106	138	164	154	128	190	206	286	290	235	2,126	41·5	1·79
Diarrhœa	59	77	92	133	123	149	109	141	103	94	109	94	1,274	24·8	1·79
Hepatitis	10	12	12	11	6	9	14	13	9	8	9	18	131	2·6	10·69
Spleen Disease ...	24	21	38	43	32	33	40	44	57	67	80	48	527	10·3	2·47
Respiratory Diseases ...	223	262	199	154	136	114	95	106	97	176	186	217	1,965	38·3	5·09
Phthisis Pulmonalis ...	10	12	15	13	15	8	10	11	12	7	10	11	134	2·6	44·78
Dropsy	2	1	2	1	1	...	1	1	...	3	1	1	14	·3	42·86
Scurvy	5	5	3	3	1	2	4	6	3	5	1	3	41	·8	2·44
Rheumatism	233	258	218	186	196	162	169	175	147	161	229	206	2,338	45·6	
Venereal Diseases... ...	186	163	198	173	109	181	173	182	129	143	187	149	2,038	39·7	
Eye Diseases	84	50	96	147	167	122	154	158	129	98	93	79	1,368	26·7	·43
Abscess and Ulcer ...	324	297	277	265	297	324	418	480	352	347	404	305	4,090	79·8	
Wounds and Accidents ...	459	465	466	404	467	449	408	488	427	429	548	511	5,602	109·2	
All other Causes... ...	409	444	421	428	415	390	367	403	419	466	416	365	4,874	95·0	
	3,109	2,927	3,067	3,404	3,821	3,470	3,635	5,675	7,111	6,100	4,867	3,481	50,637		
	Admitted per 1,000 of the Average Strength in each Month.														
	61·4	53·6	54·9	66·0	77·0	70·3	71·7	112·6	142·0	120·5	93·5	69·2	987·4		

I.—STATISTICS OF PROVINCES, 1867—76.

VIII.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in the MEERUT DISTRICT and in ROHILCUND for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	4,742	28·2	29·3	26·2	36·9	31·8	32·1	31·1	36·9	52·1	46·4	31·9	29·6	33·5
1868	5,189	24·3	27·3	22·9	23·7	31·2	35·7	28·4	29·6	32·3	32·9	38·9	32·5	29·7
1869	5,349	30·2	26·0	30·9	31·6	36·1	31·7	31·6	34·2	37·8	44·3	43·5	33·2	34·0
1870	5,835	29·7	28·2	37·6	31·3	32·9	27·7	28·1	32·1	45·9	48·5	39·5	31·9	34·8
1871	5,478	30·6	25·0	24·3	23·5	23·6	24·4	28·0	32·4	37·6	37·5	32·8	31·7	29·0
1872	4,643	23·8	29·7	28·3	31·4	35·0	31·6	27·2	37·8	56·0	39·5	32·0	28·7	33·6
1873	5,095	29·9	30·1	23·4	23·8	24·1	23·9	23·6	35·5	49·3	41·5	41·1	31·4	31·8
1874	4,670	26·7	24·7	24·2	24·4	29·3	28·3	28·7	47·1	61·9	54·5	35·2	30·8	34·3
1875	5,249	28·1	26·9	28·3	25·8	24·9	23·4	23·1	27·9	34·3	34·9	31·9	28·1	28·0
1876	5,031	28·0	38·7	33·8	33·3	32·2	31·3	25·8	40·3	60·5	45·9	31·3	26·3	34·5
1867—76 ...	51,281	28·3	28·4	28·0	27·6	29·9	29·0	27·5	35·0	45·5	42·5	35·7	30·7	32·3

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	70·3	56·7	56·7	92·3	85·6	76·1	103·6	103·2	176·5	152·2	77·9	69·6	1117·8
1868	69·2	56·0	55·1	61·3	71·9	106·4	63·2	69·8	87·3	83·4	84·4	73·6	863·0
1869	54·4	45·9	69·9	67·8	89·5	81·7	64·0	103·5	106·1	117·5	125·5	52·4	970·8
1870	48·0	45·1	69·3	57·9	101·4	60·0	66·4	113·1	131·4	129·5	119·9	61·5	1009·1
1871	63·5	49·9	49·0	55·3	71·8	65·5	66·2	109·3	103·6	112·2	75·1	69·3	870·2
1872	46·7	50·4	43·3	90·1	65·8	61·8	77·7	102·0	180·1	115·4	63·1	55·2	971·8
1873	63·9	47·1	39·1	62·2	59·5	58·7	66·7	120·8	223·5	131·4	119·0	99·8	1074·4
1874	59·2	50·9	55·4	54·9	77·9	67·0	111·8	171·5	196·7	128·7	89·5	78·1	1091·4
1875	56·6	40·3	58·4	63·0	56·5	64·8	51·3	93·2	93·3	89·5	103·0	68·9	835·8
1876	88·1	101·3	49·2	59·4	85·9	58·6	58·6	132·4	150·9	145·4	83·6	72·6	1101·2
1867—76 ...	61·4	55·6	54·9	66·0	77·0	70·3	71·7	112·6	142·0	120·5	93·5	69·2	987·4

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	3·1	410·4	26·6	...	47·9	51·9	2·1	4·0	54·8	1·3	·6	2·3	71·5	51·2	25·7	10·8	9·3	15·3	1117·8
1868	·8	321·1	16·6	·2	33·1	23·4	1·2	7·7	35·5	·8	·2	1·7	48·6	39·7	22·0	8·1	9·1	12·2	863·0
1869	·4	455·8	23·9	1·5	37·4	31·8	2·2	9·0	37·4	1·7	·9	·6	38·1	47·7	27·5	7·1	7·0	10·8	970·8
1870	·9	524·6	11·0	...	42·0	21·6	2·7	13·9	35·5	3·8	·3	...	47·1	36·5	20·0	7·3	10·5	6·5	1009·1
1871	·7	423·6	20·1	·2	36·9	19·0	1·8	4·6	33·2	4·6	·4	·7	38·2	25·7	25·0	6·1	9·7	6·7	870·2
1872	4·7	455·1	14·2	·9	33·0	22·4	3·0	16·1	37·9	3·9	·2	·9	31·7	42·0	25·3	7·6	8·1	11·3	971·8
1873	1·0	525·6	20·2	...	38·7	14·9	3·7	11·6	30·5	1·0	...	·6	39·8	28·4	31·0	7·5	12·2	11·7	1074·4
1874	...	531·7	16·3	·2	37·9	16·1	3·0	18·2	45·4	2·1	·2	·7	46·5	40·2	31·7	8·5	11·0	9·7	1091·4
1875	1·9	399·2	19·4	·2	51·2	15·6	3·6	10·3	30·7	3·4	...	·6	38·7	45·5	27·3	7·2	13·1	7·8	835·8
1876	1·0	503·1	7·6	·2	50·5	31·6	2·2	8·1	39·1	3·4	...	·2	57·4	34·0	32·2	6·4	15·0	9·2	1101·2
1867—76 ...	1·4	445·8	17·5	·3	41·5	24·8	2·6	10·3	38·3	2·6	·3	·8	45·6	39·7	26·7	7·8	10·2	10·2	987·4

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.													
	A Cholera.	B All other causes.	C All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	2·53	8·22	10·75	2·53	2·11	...	·63	·63	...	1·69	·63	·63	...	...	·85	1·05	...
1868	·19	8·67	8·86	·19	1·35	·19	1·54	...	·58	1·16	·38	...	·19	...	·97	1·35	·96
1869	...	11·78	11·78	...	4·30	·74	·94	...	...	2·24	...	1·12	·38	...	·56	1·12	·38
1870	·35	11·30	11·65	·35	2·57	...	1·55	...	·51	1·20	·51	1·54	·17	...	·51	1·38	·86
1871	·55	14·23	14·78	·55	3·65	·18	2·19	·73	·37	3·10	·37	2·00	...	·18	...	·18	1·28
1872	3·23	13·57	16·80	3·23	2·37	·43	·86	·22	·22	3·23	·43	2·15	...	...	1·29	1·72	·65
1873	·20	8·44	8·64	·20	2·55	...	·59	·39	·39	1·37	·59	·98	...	...	·59	·20	...
1874	...	8·78	8·78	...	2·35	·43	1·29	·43	...	2·14	...	·43	·21	...	·43	·86	·21
1875	1·33	9·53	10·86	1·33	2·48	...	·95	·38	·38	2·29	·19	1·14	·19	...	...	1·33	·19
1876	·20	8·75	8·95	·20	1·79	...	1·29	...	...	1·19	·20	1·59	...	...	1·19	1·39	·20
1867—76 ...	·82	10·37	11·19	·82	2·57	·20	1·19	·27	·25	1·95	·33	1·17	·12	·02	·62	1·19	·49

I.—STATISTICS OF PROVINCES, 1867—76.

IX.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS serving in the AGRA DISTRICT and in CENTRAL INDIA during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

(Several of the stations of this area were occupied by Madras Troops during the period, and the Statistics of these Regiments are not included.)

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever. (1872–76.)	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	43,008	2,166	49·7	29	·67	...	1	...	3	4	...	...	2	...	2	13	...	...	...	...	1	...	2	1
February	40,334	2,183	47·1	30	·65	...	...	...	4	3	...	1	4	...	1	10	...	...	...	...	2	1	2	...
March	40,681	1,990	42·6	35	·75	...	...	...	7	1	...	1	3	...	...	9	...	3	...	...	3	1	6	1
April	41,651	1,862	44·7	29	·70	1	2	...	7	1	...	1	...	...	...	6	...	5	...	...	...	...	3	4
May	40,205	1,749	43·5	37	·92	5	4	...	5	3	5	2	1	...	...	3	...	1	...	1	1	1	4	2
June	40,105	1,545	38·5	31	·77	6	...	1	4	1	9	1	4	...	...	...	...	...	1	...	1	...	1	2
July	41,888	1,602	38·2	37	·88	7	1	...	3	5	...	2	6	1	...	4	1	2	...	...	1	...	1	3
August	41,686	1,978	47·4	44	1·06	15	...	...	6	2	2	4	4	1	...	5	...	4	...	...	1	...	...	...
September	41,633	2,630	63·2	28	·67	7	...	...	5	3	1	3	2	1	...	2	...	...	...	1	...	1	1	1
October	41,951	3,020	72·0	26	·62	2	...	...	9	3	...	2	1	1	...	1	...	2	...	1	2	...	1	1
November	41,546	2,648	63·7	43	1·03	1	...	1	7	5	...	4	3	...	2	6	...	4	2	...	1	1	5	1
December	39,550	2,166	53·2	37	·94	...	...	...	7	3	...	4	3	1	1	11	...	...	...	...	3	...	2	2
						44	8	2	67	34	17	25	33	5	6	70	1	23	3	2	16	5	27	18
						Died per 1,000 of the Average Strength.																		
For the ten years ...	42,236	2,123	50·3	406	9·61	1·04	·19		2·44		·40	·59	·78	·12	·14	1·66	·02	·54	·07	·05	·38	·12	·64	·43

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	...	...	...	...	...	114	811	172	19	2	1,118	26·5	...
Cholera	...	...	1	3	6	9	10	31	11	2	1	...	74	1·8	59·46
Smallpox	8	3	21	21	19	3	1	...	1	...	1	...	69	1·6	11·59
Enteric Fever (1872-76) ...	...	...	...	...	...	1	...	...	...	1	...	...	2	...	100·00
Fever, Intermittent ...	1,910	1,305	1,874	2,942	2,745	1,615	2,002	2,891	4,786	6,822	5,139	2,519	36,650	867·7	·18
Fevers, Remittent and Continued	19	30	25	35	42	23	29	33	48	68	16	14	388	9·2	8·76
Apoplexy	1	...	1	1	9	34	1	3	2	1	...	...	53	1·3	32·08
Dysentery	115	79	113	188	135	114	197	481	290	223	228	139	2,311	54·7	1·60
Diarrhœa	109	48	123	111	109	206	186	277	125	106	98	70	1,568	37·1	
Hepatitis	13	3	8	6	6	4	6	6	10	4	7	6	79	1·9	6·33
Spleen Disease	49	48	34	27	29	27	21	23	29	50	58	45	440	10·4	1·36
Respiratory Diseases ...	224	244	161	81	70	83	76	71	62	107	140	214	1,533	36·3	4·57
Phthisis Pulmonalis ...	7	5	9	5	6	5	8	4	5	6	7	7	74	1·8	31·08
Dropsy	1	1	1	1	...	...	1	...	1	1	2	1	10	·2	30·00
Scurvy	8	4	2	6	3	5	1	4	34	9	14	3	93	2·2	2·15
Rheumatism	407	292	225	170	157	179	203	220	166	204	256	230	2,709	64·1	
Venereal Diseases ...	205	237	247	299	182	181	161	202	196	217	189	198	2,423	57·4	
Eye Diseases	53	74	81	92	83	75	102	161	138	104	87	61	1,111	26·3	·22
Abscess and Ulcer ...	502	425	437	332	337	562	583	612	592	485	503	422	5,902	137·4	
Wounds and Accidents ...	697	632	611	429	372	327	430	652	498	625	618	549	6,440	152·5	
All other Causes	443	381	412	337	260	335	315	401	362	293	320	287	4,146	98·1	
	4,771	3,877	4,386	4,906	4,561	3,788	4,343	6,186	8,176	9,599	7,703	4,907	67,694		
	Admitted per 1,000 of the Average Strength in each Month.														
	109·4	83·7	94·0	119·9	113·4	94·5	103·7	148·4	196·4	226·5	185·4	121·5	1588·5		

I.—STATISTICS OF PROVINCES, 1867—76.

X.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in the AGRA DISTRICT and in CENTRAL INDIA for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	5,488	52·5	51·7	43·8	43·1	43·3	39·6	37·9	42·1	51·3	69·8	57·9	51·0	48·7
1868	6,118	40·3	42·9	38·7	36·3	39·9	49·2	38·2	53·0	47·9	56·8	56·7	47·0	44·8
1869	3,725	48·0	45·6	52·1	63·2	65·6	54·3	44·5	51·4	71·7	121·1	108·0	64·3	65·2
1870	3,786	55·0	47·2	41·6	51·9	51·4	46·4	43·6	72·4	97·5	96·7	76·6	70·0	61·5
1871	3,864	52·3	45·3	48·4	70·7	66·3	37·1	42·6	56·9	92·3	93·0	74·0	75·2	62·4
1872	3,844	67·4	51·3	40·5	33·0	34·6	34·5	34·9	45·6	109·6	83·8	72·1	68·2	56·2
1873	3,863	66·9	67·2	56·0	55·2	55·2	46·8	45·9	54·8	69·6	63·6	55·6	43·5	56·0
1874	3,796	43·4	43·0	39·2	32·9	33·8	32·2	37·8	40·1	48·9	60·9	53·4	52·4	43·2
1875	3,829	47·2	48·6	39·6	44·3	34·2	32·1	38·1	32·6	38·2	49·8	39·6	33·3	39·2
1876	3,984	32·0	32·2	27·6	23·1	23·4	20·9	19·7	26·1	32·5	45·6	47·1	34·9	30·6
1867—76 ...	42,236	49·7	47·1	42·6	44·7	43·5	38·5	38·2	47·4	63·2	72·0	63·7	53·2	50·3

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	124·1	100·5	88·9	133·4	91·6	71·4	114·8	104·5	151·8	252·1	146·9	110·7	1486·9
1868	80·1	75·8	88·5	92·2	96·4	111·5	96·7	111·9	141·2	143·9	151·5	112·3	1297·6
1869	107·3	84·2	177·8	203·3	189·8	192·7	125·2	202·7	255·3	429·5	401·2	148·3	2536·1
1870	125·1	87·0	128·9	161·9	188·9	115·6	131·5	313·9	276·1	285·9	290·2	162·4	2216·6
1871	129·9	92·5	112·1	190·2	209·9	95·1	130·3	206·6	227·6	265·2	174·7	173·9	1908·3
1872	174·9	103·5	77·0	104·7	101·3	90·1	122·1	159·0	364·3	289·5	162·7	163·2	1890·4
1873	150·1	98·3	88·7	143·6	98·0	75·6	87·8	117·1	196·1	174·0	128·2	78·3	1425·9
1874	84·3	69·4	65·4	48·3	69·6	63·8	111·8	109·6	192·4	196·1	132·8	119·1	1239·7
1875	73·2	71·5	73·5	77·9	59·9	81·0	67·9	113·7	106·2	96·1	126·6	68·2	1018·3
1876	64·1	64·0	45·3	52·4	63·4	46·5	52·2	103·7	119·0	204·7	153·2	93·1	1048·0
1867—76 ...	103·4	83·7	94·0	119·9	113·4	94·5	103·7	148·4	196·4	226·5	185·4	121·5	1588·5

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rates of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	2·0	764·2	18·4	·6	48·5	54·5	1·6	14·7	22·8	·2	·4	...	62·3	57·4	20·8	169·7	142·1	115·7	1486·9
1868	·3	689·8	7·2	·2	35·6	26·0	1·6	5·1	25·2	1·0	·5	1·0	49·4	68·1	21·1	122·6	126·0	106·9	1297·6
1869	105·5	1512·2	17·2	9·4	102·0	125·9	2·4	7·8	30·6	·8	·5	14·8	77·3	85·0	30·1	182·9	199·4	115·2	2536·1
1870	·3	1370·8	4·7	·8	77·7	56·3	·5	6·1	32·0	1·1	·3	3·7	80·3	52·3	36·4	147·6	219·0	147·7	2216·6
1871	...	1317·3	3·1	·3	35·7	23·3	1·0	9·8	43·7	2·1	·5	1·0	72·2	44·8	24·3	138·2	173·7	80·3	1908·3
1872	...	858·8	3·1	...	47·6	29·8	3·1	13·5	66·3	1·6	...	·8	73·4	53·6	28·4	154·8	166·2	403·4	1890·4
1873	1·0	681·0	10·0	·5	70·5	29·3	2·9	22·1	47·6	2·6	...	1·6	83·4	52·1	31·3	117·2	164·1	121·7	1425·9
1874	·3	671·0	6·3	·5	39·6	15·9	1·8	8·7	35·0	2·4	...	·3	60·9	53·2	23·4	117·7	131·2	74·5	1239·7
1875	3·7	449·5	13·1	·8	51·4	13·8	1·6	10·4	42·0	2·9	...	...	34·7	47·0	28·5	131·9	122·5	64·5	1018·3
1876	·5	543·2	6·8	·5	57·2	17·1	2·3	7·3	30·1	4·0	...	1·0	49·4	42·7	24·6	101·9	89·1	70·3	1048·0
1867—76 ...	1·8	867·7	9·2	1·3	54·7	37·1	1·9	10·4	36·3	1·8	·2	2·2	64·1	57·4	26·3	137·4	152·5	126·2	1588·5

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.														
	A. Cholera.	B. All other causes.	C. All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	·91	6·02	6·93	·91	2·09	·37	1·46	·18	...	·18	...	·18	...	...	·18	·73	·74	
1868	·16	4·41	4·57	·16	1·64	·16	·98	...	·16	·16	...	·33	...	...	·65	·33	...	
1869	7·25	11·81	19·06	7·25	2·95	2·68	2·42	...	·27	1·07	...	...	·27	·27	·54	1·07	·27	
1870	...	13·74	13·74	...	4·49	·26	3·17	·26	·26	3·17	·26	·79	·27	·27	...	·27	·27	
1871	...	10·09	10·09	...	3·88	...	2·07	...	...	1·29	...	·52	·26	...	·52	1·29	·26	
1872	...	10·67	10·67	...	1·82	...	·26	·26	·26	4·43	...	·78	...	...	·26	1·30	1·30	
1873	1·05	9·20	10·25	1·05	2·63	·26	1·32	...	·26	1·05	...	·79	...	...	·79	1·58	·52	
1874	·26	8·17	8·43	·26	2·38	·26	·52	·26	...	1·85	...	·80	...	...	·80	·52	·78	
1875	1·57	10·44	12·01	1·57	2·61	·26	1·83	·26	...	3·13	...	·52	...	...	...	·78	1·04	
1876	...	5·02	5·02	...	·75	...	...	...	·25	1·76	...	1·01	...	...	...	·75	·50	
1867—76 ...	1·04	8·57	9·61	1·01	2·44	·40	1·37	·12	·14	1·93	·02	·54	·07	·05	·38	·83	·65	

I.—STATISTICS OF PROVINCES, 1867—76.

XI.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS serving in the PUNJAB during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Ph æ is Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	157,685	5,908	37·5	293	1·86	...	2	...	41	24	1	21	13	...	3	137	5	13	1	2	11	3	13	3
February	163,135	5,397	33·1	195	1·20	1	7	...	35	14	3	3	11	1	2	81	1	11	1	...	8	2	10	4
March	160,955	4,745	29·5	149	·93	...	...	1	23	14	...	5	10	3	...	53	1	10	1	1	5	3	16	4
April	144,261	3,979	27·6	123	·85	2	1	...	7	22	2	1	3	1	2	45	3	8	...	1	8	3	8	6
May	137,628	3,754	27·3	112	·81	13	...	4	10	9	2	8	6	2	...	26	2	10	...	1	1	2	11	6
June	137,621	3,808	27·7	100	·73	23	...	...	8	17	3	3	5	2	...	10	2	8	...	...	3	3	6	7
July	140,775	4,080	29·0	118	·84	32	1	1	6	11	6	2	5	...	1	10	4	6	...	...	3	5	16	9
August	141,434	5,343	37·8	72	·51	15	1	...	7	9	2	2	2	...	2	10	...	4	1	...	3	5	6	3
September	143,020	8,182	57·2	179	1·25	103	...	1	7	9	1	16	12	...	1	9	3	4	...	...	5	1	12	5
October	146,959	10,676	72·7	212	1·44	64	...	...	34	14	1	27	13	1	3	18	1	4	2	1	3	2	14	10
November	158,416	10,664	67·3	253	1·60	4	...	1	72	29	2	22	22	...	...	61	4	5	2	1	13	1	21	2
December	161,026	7,609	47·3	322	2·00	1	1	...	55	21	1	32	25	2	4	128	5	7	2	1	9	2	16	10
						258	13	7	305	184	24	142	116	12	18	588	31	90	10	8	72	32	149	69
						Died per 1,000 of the Average Strength.																		
For the ten years ...	149,410	6,179	41·4	2,128	14·24	1·73	·09	3·32			·16	·95	·78	·08	·12	3·94	·20	·61	·07	·05	·48	·21	1·00	·46

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	1	...	...	...	...	...	...	...	...	2	3	4	10	·1	...
Cholera	...	2	...	8	29	51	76	35	178	93	7	1	480	3·2	53·75
Smallpox	10	22	13	10	5	15	1	1	...	1	3	3	84	·6	15·48
Enteric Fever (1872—76) ...	...	...	...	3	2	2	2	1	1	1	3	2	17	·1	41·18
Fever, Intermittent ...	5,296	3,773	3,547	3,766	4,630	5,452	5,781	11,748	23,834	30,356	21,277	9,452	128,912	862·8	·24
Fevers, Remittent and Continued	100	72	96	132	204	113	94	127	173	186	132	160	1,535	10·3	11·99
Apoplexy	1	5	2	2	7	8	9	4	3	2	2	2	47	·3	51·06
Dysentery	588	359	353	536	559	527	561	974	1,199	1,462	1,447	992	9,548	63·9	1·09
Diarrhœa	347	232	274	378	394	443	583	592	626	645	659	524	5,607	38·1	1·09
Hepatitis	22	22	31	18	29	28	19	25	18	17	17	13	259	1·7	4·63
Spleen Disease	149	77	96	58	73	88	83	80	330	179	323	279	1,915	12·8	·94
Respiratory Diseases ...	1,318	1,074	865	538	397	286	297	324	304	408	771	1,226	7,808	52·3	7·53
Phthisis Pulmonalis ...	23	25	28	32	19	15	31	20	9	14	21	13	249	1·6	36·14
Dropsy	8	5	2	2	2	2	5	4	7	2	10	4	53	·4	18·87
Scurvy	17	14	16	13	24	21	30	17	17	25	28	21	243	1·6	3·29
Rheumatism	1,004	903	782	556	508	546	542	606	535	669	741	868	8,256	55·3	
Venereal Diseases ...	376	328	398	312	286	316	351	298	302	367	362	343	3,927	26·3	
Eye Diseases	184	152	213	319	469	425	429	693	517	304	304	218	4,267	28·6	
Abscess and Ulcer ...	1,248	911	899	821	905	1,089	1,055	1,827	1,322	1,214	1,280	1,209	13,481	90·8	·46
Wounds and Accidents ...	1,384	1,280	1,254	1,208	1,376	1,315	1,386	1,474	1,327	1,468	1,674	1,605	16,751	112·1	
All other Causes	1,123	987	1,141	1,159	999	987	1,201	1,281	1,130	1,107	1,278	1,152	13,516	90·4	
	13,204	10,234	9,939	9,791	10,976	11,729	13,106	20,041	31,832	38,602	30,342	18,119	218,035		
	Admitted per 1,000 of the Average Strength in each Month.														
	83·7	62·7	61·7	67·9	79·8	85·2	93·5	141·7	222·6	263·1	191·5	112·5	1459·3		

I.—STATISTICS OF PROVINCES, 1867—76.

XII.

GENERAL STATISITCS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in the PUNJAB for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	12,328	32·8	32·2	29·8	26·6	25·4	28·7	32·0	31·3	62·2	98·6	99·2	53·8	45·3
1868	13,120	35·1	28·9	30·5	25·8	26·1	27·0	28·8	33·8	38·1	39·7	50·3	41·8	34·4
1869	15,413	35·5	34·1	31·9	26·3	26·9	28·8	28·8	48·0	71·7	123·4	106·4	64·1	52·2
1870	15,699	45·5	34·8	27·1	28·1	30·9	31·1	32·9	41·9	75·1	91·1	74·3	55·8	47·2
1871	15,234	49·4	39·1	30·7	29·3	26·5	24·8	27·9	35·7	35·1	37·1	40·7	38·4	34·9
1872	15,712	34·5	28·9	25·6	27·7	29·7	27·2	29·5	39·0	58·1	65·6	61·9	39·9	39·2
1873	15,815	28·5	26·1	25·2	24·4	25·0	23·6	23·6	33·6	59·6	68·8	65·4	47·6	37·7
1874	15,405	35·9	32·9	29·4	25·8	25·3	29·8	31·9	37·7	48·6	62·9	57·8	47·6	39·1
1875	15,355	42·2	38·9	33·3	32·7	28·8	29·4	28·4	33·2	50·0	62·5	57·2	43·2	40·0
1876	15,567	33·3	34·0	31·8	28·7	27·3	27·3	27·5	41·8	73·4	82·7	67·9	41·8	43·2
1867—76 ...	149,410	37·5	33·1	29·5	27·6	27·3	27·7	29·0	37·8	57·2	72·7	67·3	47·3	41·4

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	86·0	68·2	61·7	82·0	74·2	95·5	123·6	102·0	259·4	424·3	202·1	119·0	1645·4
1868	79·9	62·0	73·6	53·1	78·3	106·3	81·3	108·0	149·9	143·2	135·5	108·7	1190·1
1869	61·7	52·4	57·9	55·3	68·7	100·9	94·2	200·0	257·7	372·8	295·8	121·7	1724·7
1870	92·0	63·4	73·1	66·9	102·7	85·8	101·4	169·7	253·7	246·7	259·2	118·6	1605·6
1871	106·0	59·5	53·2	63·1	86·7	69·1	82·5	121·0	100·2	135·1	104·3	78·9	1055·5
1872	78·3	52·8	45·0	80·2	65·3	62·8	88·9	123·7	233·4	297·5	173·6	110·3	1422·6
1873	78·0	55·6	52·8	73·5	75·4	77·1	89·9	125·9	273·0	238·3	152·8	112·7	1376·9
1874	73·1	57·0	67·3	62·8	74·7	90·4	113·6	122·1	204·1	207·5	159·5	134·5	1362·6
1875	91·9	64·6	73·2	74·3	77·5	89·9	77·6	121·8	175·6	228·4	231·2	112·4	1413·7
1876	88·2	92·3	62·7	66·0	93·5	81·6	86·8	200·8	329·1	381·0	206·1	114·1	1779·7
1867—76 ...	83·7	62·7	61·7	67·9	79·8	85·2	93·5	141·7	222·6	263·1	191·5	112·5	1459·3

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	8·5	1026·0	4·9	·7	6·9	53·3	2·1	6·2	33·6	2·4	...	1·2	61·6	24·7	33·7	110·1	117·5	90·0	1645·4
1868	·1	527·0	6·5	·3	7·8	55·2	3·4	5·2	37·8	1·4	·2	2·3	56·3	33·4	25·1	98·6	117·5	96·1	1190·1
1869	12·1	1186·1	13·9	·3	6·4	45·7	1·1	10·9	30·4	1·6	·4	1·3	44·2	33·1	27·6	81·4	84·3	84·8	1724·7
1870	...	967·3	15·3	·6	7·9	49·2	1·2	41·7	56·9	1·4	·4	1·7	49·3	23·6	25·8	103·6	89·1	91·6	1605·6
1871	·1	462·3	7·5	·2	5·2	37·7	1·3	12·3	56·8	1·5	·3	1·6	51·4	22·1	26·9	118·8	121·1	85·4	1055·5
1872	5·1	849·4	10·7	·1	6·8	34·9	1·5	10·6	49·6	1·6	·4	1·5	53·7	22·2	32·1	91·7	103·9	100·8	1422·6
1873	·1	811·1	18·5	·1	5·5	32·3	1·9	8·1	56·5	1·2	·9	2·1	56·7	23·4	26·6	85·5	106·9	90·4	1376·9
1874	·1	768·3	11·8	·1	4·8	21·1	2·1	10·2	64·8	1·4	·5	2·0	60·3	25·8	28·9	93·0	120·6	93·2	1362·6
1875	3·7	791·7	5·4	·3	6·2	32·5	1·6	9·8	62·0	2·5	·2	1·4	56·0	30·2	30·2	105·8	125·0	92·1	1413·7
1876	3·0	1166·5	7·5	·6	6·2	30·7	1·5	11·1	68·1	1·8	·3	1·2	64·5	25·1	29·2	82·8	135·6	87·0	1779·7
1867—76 ...	3·2	862·8	10·4	·3	6·9	38·1	1·7	12·8	52·3	1·6	·4	1·6	55·3	26·3	28·6	96·8	112·1	91·1	1459·3

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.														
	A. Cholera.	B. All other causes.	C. All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	3·89	9·86	13·75	3·89	3·00	·24	2·10	·08	·08	1·46	·16	·97	...	...	·32	·89	·56	
1868	...	9·68	9·68	...	3·05	·15	1·53	·07	...	1·68	·31	·61	...	·07	·61	·59	·61	
1869	7·33	13·30	20·63	7·33	4·73	·07	3·25	·13	·07	2·08	·32	·45	...	·07	·39	1·29	·45	
1870	...	19·48	19·48	...	7·09	·45	2·88	·06	·13	5·75	·13	·64	·06	...	·70	·83	·76	
1871	·07	15·55	15·62	·07	2·43	·07	1·70	·13	·26	2·29	·20	·52	...	...	·06	1·14	·85	
1872	2·80	10·69	13·49	2·80	2·03	·06	1·66	...	·32	3·18	...	·57	...	·06	·57	1·34	·90	
1873	...	14·35	14·35	...	3·01	...	2·12	·13	·19	4·07	·32	·64	·39	·19	·45	1·35	·90	
1874	·07	9·47	9·54	·07	2·21	·07	·51	·07	...	3·57	·25	·45	·07	...	·25	1·11	·91	
1875	1·50	12·36	14·06	1·50	3·26	·13	·38	·07	...	5·41	·13	·78	...	·39	·39	1·11	·52	
1876	1·80	8·81	10·61	1·80	2·25	·38	·58	·07	·13	3·47	·25	·45	·13	·13	·25	·45	·27	
1867—76 ...	1·73	12·11	14·24	1·73	3·32	·16	1·73	·08	·12	3·94	·20	·69	·07	·05	·48	1·09	·67	

I.—STATISTICS OF PROVINCES, 1867—76.

XIII.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS composing the PUNJAB FRONTIER FORCE during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital. Cholera.	Smallpox.	Enteric Fever (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	Died out of Hospital.
January	111,228	5,293	47·6	228	2·05	...	1	1	19	33	5	10	5	1	3	123	3	7	...	...	1	3	12	1
February	110,901	4,619	41·6	173	1·56	...	2	...	3	25	2	7	...	2	2	106	3	1	3	...	3	2	9	2
March	109,260	3,791	34·7	88	·81	...	...	...	4	13	1	6	2	3	2	36	3	3	...	...	3	3	9	...
April	99,979	2,782	27·8	95	·95	12	3	...	8	14	3	3	1	...	1	30	1	6	...	...	1	2	5	5
May	91,712	2,781	30·3	58	·63	1	...	...	5	9	2	4	...	...	...	12	2	5	...	1	2	...	11	4
June	92,442	2,931	31·7	55	·59	1	...	2	6	13	2	3	2	1	1	6	...	1	...	...	1	3	7	6
July	97,437	3,056	33·1	73	·79	8	...	1	3	13	12	5	2	...	2	4	...	6	...	...	3	2	9	4
August	92,507	3,924	42·4	100	1·08	48	...	...	5	9	1	4	...	1	...	3	2	4	1	1	2	4	7	8
September	93,545	5,627	60·2	102	1·09	41	...	1	9	14	3	10	2	...	1	7	1	2	...	...	1	...	8	3
October	93,833	7,484	79·8	230	2·45	154	...	1	15	13	4	14	1	1	...	4	1	3	...	2	5	...	10	2
November	102,852	7,824	76·1	162	1·58	8	5	...	25	26	2	8	7	1	2	43	2	8	3	...	4	2	12	4
December	111,035	6,437	58·0	226	2·04	...	6	...	21	30	4	17	5	1	4	108	2	4	...	1	6	1	15	1
						273	17	6	123	212	41	91	27	11	18	482	21	50	7	5	29	23	114	40
						Died per 1,000 of the Average Strength.																		
For the ten years ...	100,144	4,712	47·1	1,590	15·88	2·73	·17	3·40			·41	·91	·27	·11	·18	4·81	·21	·50	·07	·05	·29	·23	1·14	·40

Absent Deaths, 656. Ratio of 2,246 Deaths, 18·37 per 1,000 of the Total Regimental Strength.

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Cholera	...	...	...	30	2	3	24	87	63	220	10	...	439	4·4	62·19
Smallpox	3	7	4	4	2	1	3	2	...	2	9	14	51	·5	33·33
Enteric Fever (1872—76) ...	...	...	...	...	...	4	2	...	...	2	1	2	11	·1	54·55
Fever, Intermittent ...	4,915	3,376	3,141	2,944	3,938	4,082	3,939	7,943	14,909	21,318	16,984	8,346	95,735	956·0	·13
Fevers, Remittent and Continued	171	148	110	77	85	63	54	66	82	138	130	148	1,272	12·7	16·67
Apoplexy	4	3	3	2	6	10	21	3	7	3	2	6	70	·7	58·57
Dysentery	495	258	246	350	445	445	444	798	914	899	933	705	6,923	69·1	·98
Diarrhœa	358	238	252	332	387	400	491	619	559	496	502	503	5,137	51·3	
Hepatitis	16	13	23	15	13	24	20	11	23	17	14	20	211	2·1	5·21
Spleen Disease	155	110	74	71	73	57	55	61	82	116	210	233	1,297	12·9	1·39
Respiratory Diseases ...	1,410	980	754	470	311	190	167	215	189	266	594	1,154	6,639	66·3	7·26
Phthisis Pulmonalis ...	23	17	20	11	19	11	12	10	14	12	15	21	185	1·8	27·03
Dropsy	4	1	1	...	1	1	2	3	...	4	6	5	28	·3	25·00
Scurvy	22	23	24	32	23	12	17	15	27	23	26	24	268	2·7	1·87
Rheumatism	744	633	567	393	347	400	365	406	382	385	553	691	5,856	58·5	
Venereal Diseases	209	198	193	164	209	202	180	199	158	170	176	176	2,234	22·3	
Eye Diseases	112	114	161	219	298	287	337	327	334	267	201	158	2,813	28·1	·37
Abscess and Ulcer	1,303	859	761	674	993	1,013	1,637	1,843	1,257	1,021	1,155	1,210	13,636	136·2	
Wounds and Accidents ...	1,168	982	1,031	1,069	1,110	1,085	1,124	1,277	1,079	1,126	1,259	1,306	13,627	136·1	
All other Causes	988	928	1,014	1,008	1,016	1,046	1,042	1,085	997	768	888	904	11,774	117·5	
	12,140	8,898	8,390	7,855	9,186	9,347	9,936	14,970	20,906	27,244	23,569	15,716	168,206		
	Admitted per 1,000 of the Average Strength in each Month.														
	108·8	80·2	76·8	78·6	100·2	101·1	107·5	161·8	224·3	280·3	229·2	141·5	1679·6		

I.—STATISTICS OF PROVINCES, 1867—76.

XIV.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS composing the PUNJAB FRONTIER FORCE for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	9,135	36·5	32·3	28·0	22·8	24·0	27·8	27·0	31·4	42·4	56·8	65·6	52·5	36·4
1868	10,308	30·1	25·7	23·8	20·1	22·1	26·9	30·8	34·9	35·3	33·3	39·0	30·5	29·4
1869	10,217	28·9	25·4	24·9	24·4	27·0	28·2	31·5	52·4	97·5	161·5	137·5	89·2	59·6
1870	10,394	61·2	48·8	40·3	35·9	42·8	40·1	41·4	48·5	83·1	106·5	100·9	72·7	60·0
1871	10,153	66·3	51·5	40·1	32·6	38·0	40·9	40·4	47·4	48·9	56·8	62·8	49·3	49·1
1872	10,022	55·6	52·9	39·7	28·6	33·2	35·2	39·5	51·4	68·6	82·9	74·7	61·7	52·5
1873	9,948	47·7	42·3	43·8	32·0	28·1	30·0	30·2	41·0	54·8	76·8	70·5	57·8	46·6
1874	9,859	49·6	45·2	34·7	23·0	23·8	27·1	30·4	43·2	65·3	87·3	75·6	58·8	47·3
1875	9,920	56·1	52·9	40·6	29·9	30·1	30·9	36·9	38·6	53·4	69·6	67·5	57·9	47·0
1876	10,189	43·4	38·6	31·3	28·5	30·2	28·9	27·5	36·1	50·8	65·4	66·9	49·4	41·6
1867—76	100,144	47·6	41·6	34·7	27·8	30·3	31·7	33·1	42·4	60·2	79·8	76·1	58·0	47·1

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	92·2	61·3	60·0	75·8	66·6	84·7	115·7	98·6	156·6	286·5	223·9	116·6	1139·7
1868	73·0	56·4	65·6	52·0	72·8	109·2	95·1	113·5	131·7	124·8	105·0	86·4	1077·4
1869	66·5	51·5	63·3	60·4	82·1	104·9	89·8	247·8	300·7	484·5	306·3	177·1	2118·4
1870	124·2	90·6	103·5	100·2	175·4	145·1	121·7	193·6	290·6	339·5	325·7	150·2	2101·0
1871	161·3	78·1	84·2	83·1	132·1	112·8	116·1	166·2	149·8	233·7	187·9	143·6	1628·3
1872	134·5	104·7	69·0	93·8	91·7	100·0	135·9	167·1	249·5	376·5	223·4	163·9	1900·1
1873	120·4	89·4	78·0	107·8	87·6	88·9	105·3	132·8	234·9	258·6	181·6	145·1	1610·8
1874	101·7	85·4	83·9	69·0	77·4	91·3	115·0	158·7	298·2	282·3	206·9	177·0	1712·2
1875	120·8	95·5	98·9	79·1	88·0	117·8	93·4	156·5	187·6	237·9	253·9	136·3	1602·6
1876	92·3	88·2	69·9	81·6	115·3	83·2	88·5	174·9	189·8	289·0	190·7	129·9	1550·0
1867—76	108·8	80·2	76·8	78·6	100·2	101·1	107·5	161·8	224·3	290·3	229·2	141·5	1679·6

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	9·4	779·5	11·0	·4	45·3	39·4	·9	6·6	44·5	1·3	·4	1·2	46·6	26·9	30·3	134·3	117·4	100·3	1395·7
1868	·1	431·4	6·4	·7	50·4	57·6	1·5	3·7	41·3	1·5	·1	1·7	50·7	21·9	26·2	123·4	146·6	111·2	1077·4
1869	19·5	1469·2	9·2	1·5	57·2	59·3	3·7	8·5	35·1	1·6	·3	2·9	49·2	18·7	28·8	115·2	124·1	114·5	2118·5
1870	...	1329·1	10·5	2·0	93·5	75·0	2·2	11·0	66·9	1·3	·4	3·3	63·4	19·9	29·9	144·1	131·6	125·9	2101·0
1871	·3	820·0	19·7	·5	87·4	55·0	1·2	15·3	72·4	1·8	·2	1·7	65·5	27·3	25·7	172·5	152·7	119·1	1628·3
1872	9·3	1073·2	20·4	·4	86·5	72·2	2·3	20·4	75·7	2·2	·1	3·5	71·7	19·5	27·0	146·5	136·1	133·1	1900·1
1873	·1	856·5	19·0	·8	68·8	38·9	2·1	19·4	80·9	2·6	·2	4·2	65·7	18·7	31·8	142·5	138·4	119·3	1610·8
1874	...	1013·3	9·7	·1	56·2	33·6	3·1	15·5	80·1	3·1	·6	4·2	62·5	19·1	23·7	138·4	142·8	116·2	1712·2
1875	·1	904·9	10·5	...	68·3	41·1	1·5	14·8	90·4	2·0	·3	2·3	53·5	30·2	31·0	138·7	143·6	123·1	1062·6
1876	5·4	870·2	11·9	·5	74·8	38·3	2·5	14·1	69·5	1·3	·2	1·7	65·0	21·4	26·6	115·0	125·1	116·5	1550·0
1867—76	4·4	936·0	12·8	·7	69·1	51·3	2·1	12·9	69·3	1·8	·3	2·7	58·5	22·3	28·1	136·2	136·1	118·0	1679·6

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.														Annual Death-rate including Absent Deaths, calculated on the total Regimental Strength
	A Cholera.	B All other causes.	C All causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	4·27	8·10	12·37	4·27	3·07	·33	·77	...	·11	1·85	·11	·54	...	...	·11	·98	·22	15·50
1868	...	7·47	7·47	...	1·26	·10	1·16	·48	...	1·24	·20	·48	·10	...	...	1·07	·68	10·94
1869	13·90	11·46	25·36	13·90	4·11	·97	1·46	·10	·10	1·57	·10	·49	·10	·20	·49	1·08	·69	26·72
1870	...	15·78	15·78	...	4·52	·96	1·25	·10	·38	5·00	·10	·48	...	·10	·48	1·25	1·16	18·85
1871	·10	17·73	17·83	·10	4·82	·39	1·77	·10	·10	7·09	·39	·59	·10	·10	·49	1·48	·40	20·90
1872	6·18	14·98	21·16	6·18	4·29	·69	2·00	·10	·20	5·49	...	·49	...	...	·20	1·10	·69	23·47
1873	...	13·87	13·87	...	4·22	·50	·51	·10	·10	4·42	·41	·50	·10	...	·30	2·11	·60	18·38
1874	...	12·28	12·28	...	1·73	...	·71	...	·20	6·30	·20	·71	·10	·10	·10	1·72	·41	13·68
1875	·10	19·25	19·35	·10	3·13	...	1·01	·10	·40	11·19	·40	·60	·10	...	·20	1·21	·80	21·85
1876	2·84	10·21	13·05	2·84	2·84	·20	1·08	...	·10	3·23	·29	·20	·10	...	·49	1·08	·69	14·69
1867—76	2·73	13·15	15·88	2·73	3·49	·41	1·18	·11	·18	4·81	·21	·50	·07	·05	·29	1·31	·63	18·37

I.—STATISTICS OF PROVINCES, 1867—76.

XV.

TABLE showing in the Aggregate the SICKNESS and MORTALITY among the NATIVE TROOPS composing the CENTRAL INDIA FORCE during the Ten-year period 1867—76, and the prevalence of the principal Diseases in each Month of the period.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever (1872—76).	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	42,741	1,390	32·5	44	1·03	...	...	...	7	4	...	1	1	1	...	29	...	...	...	...	2	1	7	...
February	41,743	1,296	31·0	36	·86	...	...	...	1	4	...	1	5	1	1	13	1	2	...	...	1	...	4	2
March	41,231	1,189	29·1	60	1·46	2	1	...	7	5	...	2	1	1	...	18	...	...	...	...	2	2	19	...
April	39,806	1,166	29·3	42	1·06	4	...	...	5	4	...	1	3	...	...	11	1	3	...	...	1	...	6	3
May	39,538	1,140	28·8	37	·94	7	1	...	9	6	1	2	...	...	...	5	1	1	...	...	...	...	3	...
June	40,415	1,160	28·7	39	·96	16	...	...	3	2	1	2	...	...	...	4	...	...	...	...	2	1	5	3
July	41,415	1,283	31·0	37	·89	15	...	...	...	4	...	2	1	...	...	3	1	...	...	...	...	2	6	3
August	42,109	1,455	34·6	32	·76	5	...	...	1	4	...	4	3	...	...	8	...	1	1	...	...	1	4	...
September	42,101	1,670	39·7	21	·50	1	...	...	5	1	1	4	1	1	...	4	...	...	...	...	...	...	3	...
October	41,876	2,058	49·1	31	·74	...	...	...	7	5	...	3	1	1	...	4	...	1	1	...	...	...	5	3
November	42,501	1,917	45·1	40	·94	5	...	...	10	4	1	4	1	2	...	3	...	2	1	...	...	...	6	1
December	42,734	1,541	36·1	42	·98	...	...	...	3	1	...	2	1	1	...	16	...	2	1	...	4	...	8	3
						55	2	...	58	44	4	28	18	8	1	109	4	12	4	...	12	8	76	18
						Died per 1,000 of the Average Strength.																		
For the ten years	41,517	1,440	34·7	461	11·10	1·32	·05		2·46		·10	·67	·43	·19	·02	2·63	·10	·29	·10	...	·29	·19	1·83	·43

Absent Deaths, 156. Ratio of 617 Deaths, 11·36 per 1,000 of the Total Regimental Strength.

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	1	3	4	7	32	44	7	3	...	8	...	109	2·6	59·46
Smallpox	4	4	12	7	5	2	1	...	...	...	...	1	36	·9	5·56
Enteric Fever (1872—76)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent	1,030	845	909	1,032	883	704	845	1,383	2,249	3,892	2,701	1,368	17,841	429·7	·33
Fevers, Remittent and Continued	40	56	40	52	58	41	31	47	38	35	56	32	526	12·7	8·36
Apoplexy	...	...	1	...	10	3	...	...	...	1	...	...	15	·4	26·67
Dysentery	95	69	98	94	91	87	169	299	147	110	147	123	1,511	36·4	1·59
Diarrhœa	52	44	66	95	102	161	203	243	154	85	83	89	1,377	33·2	
Hepatitis	11	5	7	7	6	3	5	4	4	8	8	7	75	1·8	10·67
Spleen Disease	17	15	13	14	13	7	7	13	8	28	18	22	175	4·2	·57
Respiratory Diseases	198	216	208	130	86	57	66	79	83	86	148	163	1,520	36·6	7·17
Phthisis Pulmonalis	...	3	6	4	1	2	...	3	6	2	4	1	32	·8	37·50
Dropsy	2	1	1	1	1	2	3	1	3	2	4	1	22	·5	18·18
Scurvy	1	3	1	2	4	1	2	3	2	3	3	2	27	·6	...
Rheumatism	195	189	174	130	139	163	146	164	169	150	167	182	1,968	47·4	
Venereal Diseases	124	144	112	118	137	138	123	113	128	152	114	93	1,496	36·0	
Eye Diseases	121	111	178	221	196	193	218	381	392	243	188	155	2,597	62·6	·52
Abscess and Ulcers	328	271	256	201	244	321	399	368	317	318	314	355	3,692	88·9	
Wounds and Accidents	506	356	334	267	253	275	290	362	374	382	360	442	4,201	101·2	
All other Causes	372	333	383	390	467	526	532	562	402	449	390	301	5,147	124·0	
	3,036	2,648	2,802	2,769	2,703	2,718	3,084	4,023	4,509	5,955	4,713	3,337	42,367		
	Admitted per 1,000 of the Average Strength in each Month.														
	71·3	63·4	68·0	69·6	68·4	67·3	74·5	95·5	108·5	142·2	110·9	78·1	1029·5		

I.—STATISTICS OF PROVINCES, 1867—76.

XVI.

GENERAL STATISTICS of SICKNESS and MORTALITY among the NATIVE TROOPS composing the CENTRAL INDIA FORCE for each Year of the Ten-year period 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	4,212	30·9	34·6	33·6	28·7	29·5	34·7	35·2	35·1	42·6	43·6	43·6	34·6	35·6
1868	3,177	34·2	27·7	25·1	25·3	24·8	27·1	31·1	33·5	40·1	41·9	37·7	31·9	31·5
1869	4,010	27·9	28·2	36·7	38·3	33·8	38·9	36·6	43·4	56·8	103·0	93·5	47·5	48·9
1870	4,054	37·0	30·7	31·7	29·2	29·9	26·8	28·6	35·9	41·9	54·1	46·8	46·5	36·5
1871	4,026	30·7	34·1	34·5	32·0	34·2	30·1	32·4	34·7	28·0	37·7	35·4	29·6	33·3
1872	4,444	33·3	33·6	32·4	32·8	33·5	30·8	35·1	39·5	44·9	55·8	49·5	36·7	38·3
1873	4,442	34·1	30·0	27·2	28·0	26·2	27·3	28·7	34·3	40·5	44·0	41·4	37·8	33·1
1874	4,197	34·3	31·3	26·9	25·9	24·1	24·4	27·4	29·6	35·5	42·5	33·4	37·3	31·2
1875	4,428	29·4	31·4	22·1	23·6	24·8	25·0	27·0	30·2	34·0	36·3	32·5	29·6	28·9
1876	4,526	27·7	28·2	25·0	28·8	26·9	42·6	28·4	30·3	33·7	34·8	30·4	30·0	29·6
1867—76 ...	41,517	32·5	31·0	29·1	29·3	28·8	28·7	31·0	34·6	39·7	49·1	45·1	36·1	34·7

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	82·2	76·9	80·4	87·9	71·2	82·5	96·1	91·4	102·9	145·8	98·9	74·7	1004·0
1868	79·4	71·7	87·1	72·4	77·5	99·9	61·8	80·5	123·9	93·0	84·3	68·9	986·9
1869	69·0	67·8	90·2	79·2	76·0	113·3	85·5	138·6	180·9	280·5	240·5	92·8	1517·0
1870	82·5	62·6	69·5	75·4	83·4	57·6	76·9	121·7	126·8	158·2	135·0	96·5	1143·6
1871	84·2	67·7	78·3	63·5	76·5	58·0	66·4	103·4	74·7	118·7	74·3	70·4	903·1
1872	76·6	61·7	61·3	57·6	73·2	58·4	89·7	78·9	97·9	190·5	108·4	82·9	1058·8
1873	76·4	45·9	47·3	73·7	53·4	59·3	63·8	76·1	114·2	94·1	75·2	71·3	843·1
1874	55·1	47·0	62·7	48·4	47·2	48·5	86·7	83·8	115·0	112·2	84·9	93·4	887·1
1875	60·4	62·3	57·4	56·0	53·9	77·1	59·9	100·3	80·5	94·1	106·2	62·9	884·8
1876	59·8	71·2	55·3	52·1	74·9	45·8	58·2	83·5	76·4	114·6	105·1	70·4	867·2
1867—76 ...	71·3	63·4	68·0	69·6	68·4	67·3	74·5	95·5	108·5	142·2	110·9	78·1	1020·5

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																		Admission-rate of the year.
	Cholera.	Intermittent Fever.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcers.	Wounds and Accidents.	All other Causes.	
1867	47	427·1	6·4	·2	35·6	36·1	2·8	·7	22·0	·5	·5	·7	45·8	50·8	53·7	82·4	12·4	197·6	1004·0
1868	...	356·9	7·2	...	23·5	31·5	1·9	2·5	23·6	·3	1·3	·6	49·4	49·4	54·8	90·7	13·4	181·9	986·9
1869	15·7	795·9	7·0	·8	72·8	89·5	3·0	1·7	17·7	1·2	·5	1·0	53·1	71·3	53·1	110·5	10·7	119·5	1517·0
1870	...	630·2	8·1	·3	43·9	29·7	1·5	4·2	30·8	·5	·5	·3	42·7	43·9	46·9	17·2	9·5	99·4	1143·6
1871	·7	437·7	11·2	...	30·6	28·2	1·7	4·7	36·0	...	...	·7	38·7	26·8	53·4	76·5	9·9	101·3	903·1
1872	1·8	503·6	10·6	·2	41·9	40·7	1·8	8·1	52·4	·2	·5	1·4	50·4	23·4	54·2	94·5	8·8	108·3	1058·8
1873	·7	300·8	5·9	·2	22·1	22·5	1·3	6·1	46·6	·4	·9	1·1	44·6	19·8	81·5	94·8	10·4	84·4	843·1
1874	...	329·8	21·7	·4	24·3	21·7	1·7	6·0	39·5	1·4	1·0	·2	54·1	24·5	72·5	82·7	10·2	98·6	887·1
1875	2·5	264·0	34·6	7·4	31·3	24·3	1·8	2·3	42·0	1·6	...	...	43·1	32·3	84·5	92·1	10·9	114·1	884·8
1876	·2	290·1	11·7	·9	32·9	19·9	·7	5·1	42·9	1·3	·4	·4	52·2	23·4	65·8	87·7	7·8	151·8	867·2
1867—76 ...	2·6	429·7	12·7	·4	36·4	33·2	1·8	4·2	36·6	·8	·5	·6	47·4	36·0	62·6	88·9	10·2	124·9	1020·5

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the Different Causes of Mortality.														Annual Death-rate including Absent Deaths, calculated on the total Regimental Strength.
	A Cholera.	B All other causes.	C All causes.	Cholera.	Fever.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurry.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	·71	4·75	5·46	·71	1·42	...	·18	·24	...	1·66	...	·24	...	...	...	·47	·24	8·92
1868	...	8·81	8·81	...	2·84	...	·62	·31	...	·63	...	·31	·63	...	...	·31	2·21	·95	8·65
1869	9·47	9·98	19·45	9·47	3·99	·25	1·75	·25	...	1·00	...	·25	...	...	...	·25	2·24	...	18·09
1870	...	10·85	10·85	...	4·93	...	·99	·25	...	1·23	·25	...	...	...	...	·25	1·23	1·72	10·58
1871	...	13·66	13·66	...	4·22	...	2·48	...	...	2·98	...	...	...	...	...	·25	3·23	·50	14·64
1872	·90	11·71	12·61	·90	1·80	·23	2·02	...	·23	4·05	...	·23	...	...	...	...	1·80	·45	13·55
1873	·23	11·03	11·26	·23	1·80	...	·23	·23	...	4·50	·44	·44	·23	...	...	·23	2·03	·90	13·09
1874	...	9·77	9·77	...	2·14	·24	·48	·71	...	2·62	·24	·48	·24	...	...	·24	1·66	·72	9·18
1875	1·81	8·58	10·39	1·81	·68	...	·91	...	...	3·18	...	·45	...	...	...	·68	2·49	·90	9·08
1876	·22	8·62	8·84	·22	1·33	·22	1·10	...	...	3·32	...	·44	...	...	...	·66	1·55	...	9·32
1867—76 ...	1·32	9·78	11·10	1·32	2·46	·10	1·10	·19	·02	2·63	·10	·29	·10	...	·29	1·88	·62	11·16

I.—STATISTICS OF PROVINCES, 1867—76.

XVII.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY among the NATIVE TROOPS serving in the various PROVINCES of the BENGAL PRESIDENCY, on the Average of the Ten-year period 1867—76.

	Ratios per 1,000 of Strength.							
	Bengal Proper and Assam.	Gangetic Provinces.	Meerut and Rohilcund.	Agra and Central India.	Punjab.	Regular Native Army.	Central India Force.	Punjab Frontier Force.
1. Daily Sick-rate of each month.								
January	49·8	34·6	28·3	49·7	37·5	39·9	32·5	47·6
February	48·3	34·7	28·4	47·1	37·1	37·5	31·0	41·6
March	47·1	34·4	28·0	42·6	29·5	33·7	29·1	31·7
April	47·6	35·2	27·6	44·7	27·6	34·7	29·3	27·8
May	47·5	31·0	29·9	43·5	27·3	34·1	28·8	30·3
June	49·2	29·2	29·0	38·5	27·7	33·6	28·7	31·7
July	52·8	30·9	27·5	38·2	29·0	74·9	31·0	33·1
August	55·7	35·9	35·8	47·4	37·8	41·8	34·6	42·4
September	58·3	40·8	45·5	63·2	57·2	53·6	39·7	60·2
October	60·6	44·7	42·5	72·0	72·7	61·1	49·1	79·8
November	64·3	42·1	35·7	63·7	67·3	56·7	45·1	76·1
December	55·7	37·6	30·7	53·2	47·3	45·8	36·1	58·0
Average annual daily sick-rate	53·0	35·8	32·3	50·3	41·4	42·5	34·7	47·1
2. Admission-rate of each month.								
January	102·7	70·9	61·4	109·1	83·7	88·6	71·3	108·8
February	93·1	64·5	53·6	85·7	62·7	72·2	63·4	80·2
March	100·8	76·9	54·9	94·0	61·7	76·9	68·0	76·8
April	116·6	71·2	60·0	119·9	67·9	84·3	69·6	78·6
May	125·0	74·2	77·0	113·4	79·8	91·3	68·4	100·2
June	121·1	71·8	70·3	94·5	85·2	88·8	67·3	101·1
July	144·1	86·8	71·7	103·7	91·5	100·5	74·5	107·8
August	150·3	106·4	112·6	144·4	141·7	133·9	95·5	161·8
September	142·3	113·3	142·0	196·4	222·8	178·6	108·5	224·3
October	152·8	136·1	129·5	226·5	263·1	195·6	142·2	230·3
November	149·1	111·0	93·5	185·4	191·5	153·9	110·9	229·2
December	122·5	81·1	69·2	121·5	112·5	107·9	78·1	141·5
Average annual admission-rate	1522·8	1061·6	987·4	1588·5	1459·3	1360·2	1020·5	1679·6
3. Composition of the average annual admission-rate.								
Cholera	5·9	2·5	1·4	1·8	3·2	3·7	2·6	4·4
Intermittent Fevers	659·2	436·4	445·8	867·7	862·8	691·1	429·7	956·0
Remittent and Continued Fevers	19·1	9·2	17·5	9·2	10·4	12·6	12·7	12·8
Apoplexy	·3	·4	·3	1·3	·3	·5	·4	·7
Dysentery	139·0	54·4	61·5	54·7	63·9	77·1	36·4	69·1
Diarrhœa	84·3	31·1	24·8	37·1	38·1	46·1	33·2	51·3
Hepatitis	2·6	1·6	2·6	1·9	1·7	2·0	1·8	2·1
Spleen Disease	17·2	5·3	10·3	10·4	12·8	11·6	4·2	12·9
Respiratory Diseases	62·6	33·1	38·3	36·3	52·3	47·9	39·6	66·3
Phthisis Pulmonalis	3·1	2·6	2·6	1·8	1·6	2·2	·8	1·8
Dropsy	·7	·3	·3	·2	·4	·4	·5	·3
Scurvy	7·8	1·1	·8	2·2	1·6	2·7	·6	2·7
Rheumatism	63·3	53·4	45·6	64·1	55·3	56·5	47·4	58·5
Venereal Diseases	36·0	49·9	39·7	57·4	26·3	37·8	36·0	22·3
Eye Diseases	16·9	28·6	26·7	20·3	28·6	25·5	62·6	28·1
Abscess and Ulcer	88·0	103·9	79·8	137·4	96·8	98·5	88·9	136·2
Wounds and Accidents	124·3	128·9	109·2	152·5	112·1	123·3	101·2	136·1
All other Causes	192·5	118·9	100·2	126·2	91·1	120·7	124·9	118·0
Average annual admission-rate	1522·8	1061·6	987·4	1588·5	1459·3	1360·2	1020·5	1679·6
4. Composition of the average annual death-rate.								
Cholera	3·10	1·49	·82	1·04	1·73	2·12	1·32	2·73
Fevers	3·38	1·45	2·57	2·44	3·32	2·84	2·46	3·40
Apoplexy	·27	·18	·20	·40	·16	·22	·10	·41
Dysentery and Diarrhœa	3·80	1·08	1·19	1·37	1·73	2·01	1·10	1·18
Hepatitis	·17	·19	·27	·12	·08	·15	·19	·11
Spleen Diseases	·74	·27	·25	·14	·12	·28	·02	·18
Respiratory Diseases	1·27	1·15	1·95	1·66	3·94	2·57	2·63	4·81
Heart Diseases	·31	·10	·33	·02	·20	·20	·10	·21
Phthisis Pulmonalis	1·11	·68	1·17	·54	·69	·77	·29	·50
Dropsy	·16	·09	·12	·07	·07	·09	·10	·07
Scurvy	·62	.....	·02	·05	·05	·14	.....	·05
Atrophy and Anæmia	·92	·15	·62	·38	·48	·52	·29	·29
All other Causes	1·73	1·06	1·19	·83	1·09	1·19	1·88	1·31
Violent Deaths	1·03	·49	·49	·55	·67	·74	·62	·63
Average annual death-rate	19·13	8·38	11·19	9·61	14·24	13·84	11·10	15·88

II and III.—RATIOS on the AVERAGE of the TEN YEARS for the CHIEF SATIONS occupied by the NATIVE ARMY, and GENERAL STATISTICS of SELECTED STATIONS.

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XVIII.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS, of the NINE CHIEF STATIONS of BENGAL PROPER and ASSAM occupied by NATIVE TROOPS during the TEN-YEAR PERIOD, 1867—76.

	Ratios per 1,000 of Strength.								
	Fort William.	Alipore.	Barrack-pore.	Dacca.	Cachar and out-posts.	Shillong and out-posts.	Gauhati.	Dibru-garh.	Bara.
I. Daily sick-rate of each month.									
January	61·2	60·6	56·4	50·3	55·8	42·3	44·0	37·9	42·1
February	62·3	58·8	50·8	49·7	57·8	41·6	40·4	34·4	43·5
March	59·3	57·6	56·0	42·4	58·3	41·4	34·9	37·8	43·9
April	54·6	49·8	58·3	44·2	59·6	49·1	29·1	31·8	54·5
May	49·4	47·5	49·3	49·9	48·1	51·8	34·5	36·5	69·6
June	48·2	49·9	44·1	50·2	56·3	56·4	41·9	41·7	74·3
July	53·4	59·7	44·2	50·2	57·9	58·3	51·2	46·2	73·1
August	58·4	64·4	49·6	53·5	68·3	53·0	53·9	51·5	67·2
September	63·5	66·5	53·4	49·4	69·2	49·5	57·5	55·6	65·0
October	66·8	65·4	71·7	51·1	67·9	42·6	63·3	56·2	65·7
November	66·2	72·7	87·6	59·6	75·0	44·9	67·7	43·9	63·0
December	64·6	80·1	71·9	43·5	66·2	42·6	53·4	41·4	56·1
Average annual daily sick-rate	58·4	61·0	57·6	49·4	61·6	47·9	47·5	42·8	59·2
II. Admission-rate of each month.									
January	122·6	144·5	90·6	124·9	111·9	90·9	113·9	105·2	86·6
February	107·6	117·5	79·1	113·0	114·4	80·2	88·9	73·9	79·6
March	103·5	120·3	94·3	106·2	117·3	84·9	91·7	75·2	96·5
April	112·7	120·0	146·8	135·2	133·8	110·9	77·8	91·3	120·1
May	125·7	125·4	119·5	135·9	141·7	128·8	103·6	123·5	149·6
June	118·3	138·4	91·5	116·9	140·6	127·0	111·4	140·0	135·9
July	154·4	192·8	113·4	146·9	159·3	127·0	104·8	160·1	112·5
August	151·9	196·6	136·2	152·8	190·1	114·4	162·8	192·3	99·3
September	148·5	166·9	125·4	153·8	161·2	92·5	164·0	201·4	80·9
October	137·7	176·8	162·5	147·5	165·2	89·8	209·6	196·1	104·7
November	118·5	180·8	157·3	146·4	147·0	93·0	194·9	171·6	128·1
December	100·8	164·9	143·1	100·8	128·3	87·3	136·3	115·3	108·6
Average annual admission-rate	1497·1	1838·0	1452·2	1577·0	1700·2	1230·0	1612·0	1639·9	1292·6
III.—Composition of the average annual admission-rate.									
Cholera	4·5	8·1	3·4	14·1	4·1	6·0	13·1	5·1	·3
Intermittent Fever	545·2	747·7	685·2	535·0	908·3	442·7	883·0	802·1	409·8
Remittent and Continued Fever	7·3	44·1	13·4	48·7	14·8	21·3	10·2	6·6	27·4
Apoplexy	·6	·6	·2	·3	·2	·1	·4	·4	...
Dysentery	147·0	253·4	112·1	190·7	129·5	101·8	94·6	111·2	129·8
Diarrhœa	98·3	142·6	69·8	103·2	65·4	59·2	64·3	76·1	80·4
Hepatitis	1·4	·8	1·6	3·4	2·6	9·2	2·6	1·4	2·1
Spleen Diseases	9·6	12·1	32·7	11·8	12·2	4·2	14·4	11·6	5·3
Respiratory Disease	97·3	67·0	44·9	80·4	64·0	57·5	57·8	64·9	67·0
Phthisis Pulmonalis	5·9	3·4	2·2	2·0	3·7	3·7	6·1	·7	1·5
Dropsy	·2	·1	·4	...	·6	·9	1·3	1·4	1·0
Scurvy	20·9	9·1	11·3	·7	1·0	5·4	·8	1·7	22·3
Rheumatism	83·5	54·6	56·7	71·6	85·7	55·3	34·9	79·7	53·2
Venereal Diseases	47·6	39·5	34·0	33·9	34·2	45·4	36·2	20·9	16·7
Eye Diseases	20·1	16·7	10·9	12·8	25·5	13·8	24·0	20·1	13·6
Abscess and Ulcer	69·1	77·8	53·0	63·5	76·0	94·7	99·8	132·2	84·9
Wounds and Accidents	91·7	118·8	98·8	93·8	145·6	144·6	117·7	196·3	157·8
All other Causes	246·9	244·6	221·6	311·1	138·8	128·2	150·8	160·4	220·4
Average annual admission-rate	1497·1	1838·0	1452·2	1577·0	1700·2	1230·0	1612·0	1639·9	1292·6
IV. Composition of the average annual death-rate.									
Cholera	3·22	3·49	2·09	7·73	2·57	1·82	9·15	2·29	...
Fevers	2·25	3·60	5·31	1·01	3·75	3·11	4·14	1·78	4·86
Apoplexy	·48	·34	·24	·67	·20	·14	·22	·13	...
Dysentery and Diarrhœa	3·38	5·74	4·69	3·02	3·96	3·11	3·92	1·91	3·12
Hepatitis	·16	·11	...	·34	...	·54	·44	·25	·16
Spleen Disease	·80	·90	2·24	·67	·39	·41	·44	·13	·16
Respiratory Diseases	2·09	1·69	1·53	2·01	1·58	1·62	3·49	1·15	2·91
Heart Diseases	·16	...	·12	·34	·39	·54	·21	·51	1·13
Phthisis Pulmonalis	1·45	·45	1·18	·34	1·19	1·62	2·83	1·53	·81
Dropsy	...	...	·12	·34	·39	·14	·22	·13	·49
Scurvy	1·29	·79	1·30	...	·39	...	...	...	2·43
Atrophy and Anæmia	1·29	·57	2·01	·34	·79	·27	2·83	·25	·65
All other Causes	2·09	·57	·83	1·01	1·58	1·76	3·27	1·27	3·72
Violent Deaths	·48	·56	·59	·34	2·37	·54	1·31	3·19	·97
Average annual death-rate	19·14	18·81	22·07	18·16	19·35	15·82	32·48	14·52	25·41

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XIX.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS, of the EIGHT CHIEF STATIONS of the GANGETIC PROVINCES and OUDH occupied by NATIVE TROOPS during the TEN-YEAR PERIOD, 1867—76.

	Ratios per 1,000 of Strength.							
	Bhagalpur.	Dinapore.	Benares.	Gorakhpur.	Fyzabad.	Lucknow.	Cawnpore.	Allahabad.
I. Daily sick-rate of each month.								
January	40·4	31·0	46·0	43·8	27·5	31·3	27·6	32·3
February	39·2	23·4	50·7	39·7	28·7	34·1	28·8	29·7
March	48·3	24·2	48·7	35·4	24·7	39·3	28·4	32·6
April	27·9	30·8	42·9	37·5	22·3	38·0	26·0	33·3
May	26·9	28·5	38·2	38·8	21·6	33·9	24·5	25·9
June	27·6	29·2	37·9	40·1	19·4	30·5	22·9	25·4
July	31·7	27·2	37·9	38·8	21·6	33·3	26·4	28·0
August	38·8	36·1	42·2	43·3	26·2	38·4	29·3	34·6
September	40·5	34·5	52·3	53·3	29·5	38·3	41·0	40·7
October	37·9	32·8	51·9	58·9	33·2	38·0	52·7	45·2
November	42·1	19·0	49·9	57·1	32·5	38·4	43·2	41·4
December	34·8	28·4	51·4	56·5	27·5	33·8	33·6	35·6
Average annual daily sick-rate	35·9	29·6	46·2	45·4	26·3	35·6	31·8	33·7
II. Admission-rate of each month.								
January	65·1	61·2	66·1	81·9	53·7	68·4	61·0	67·7
February	69·2	46·3	64·4	72·6	50·1	65·4	57·4	65·8
March	76·4	62·2	72·0	76·7	61·2	91·8	56·2	79·1
April	60·9	54·0	65·3	91·3	51·6	82·5	54·7	72·8
May	56·5	55·5	69·3	96·3	52·5	83·7	63·6	72·0
June	65·6	59·8	75·1	103·0	40·0	77·8	63·2	67·8
July	85·6	69·5	88·1	113·4	64·0	99·1	67·6	84·9
August	85·8	95·3	112·9	109·5	72·9	127·1	82·5	111·1
September	70·4	73·5	142·1	129·6	89·2	104·7	118·8	138·8
October	73·3	87·5	113·4	144·8	124·1	108·4	180·4	163·2
November	70·3	73·4	102·2	152·1	98·7	98·7	122·3	110·4
December	61·2	53·4	80·6	122·4	59·2	70·9	75·9	75·6
Average annual admission-rate	832·4	777·3	1041·2	1288·4	805·5	1027·7	995·3	1098·3
III. Composition of the average annual admission-rate.								
Cholera	1·0	7·6	2·4	·3	·4	2·8	·8	5·7
Intermittent Fevers	240·5	285·0	333·2	615·—	290·8	416·6	480·8	432·6
Remittent and Continued Fevers	4·0	7·0	16·9	9·5	25·6	5·9	6·1	4·9
Apoplexy	·5	·6	·6	·4	·3	·4	·5	·3
Dysentery	53·3	39·9	59·0	65·1	56·6	45·5	30·0	87·7
Diarrhœa	26·6	26·8	21·2	14·0	31·9	39·4	35·6	26·6
Hepatitis	·7	1·9	1·2	1·7	1·8	1·8	2·0	·7
Spleen Disease	11·0	4·0	11·7	6·5	3·8	5·0	4·4	4·3
Respiratory Diseases	34·6	24·9	31·9	40·2	28·5	30·1	38·3	31·9
Phthisis Pulmonalis	4·2	1·5	9·3	4·5	3·0	1·6	3·1	1·0
Dropsy	·3	·2	·4	·1	·9	·1	·2	·3
Scurvy	·7	1·7	·4	·3	...	·6	·7	2·1
Rheumatism	48·6	39·1	48·2	46·4	33·7	64·3	36·7	57·1
Venereal Diseases	57·3	43·8	114·2	75·5	32·7	46·8	38·3	25·2
Eye Diseases	21·9	15·0	23·6	34·0	25·5	30·5	29·0	28·8
Abscess and Ulcer	93·9	80·0	66·2	95·2	71·2	121·7	111·8	98·4
Wounds and Accidents	120·0	98·7	91·4	121·0	85·2	149·2	165·4	141·1
All other Causes	109·3	85·6	218·4	178·7	113·6	115·4	71·6	151·6
Average annual admission-rate	832·4	777·3	1041·2	1288·4	805·5	1027·7	995·3	1098·3
IV. Composition of the average annual death-rate.								
Cholera	·75	3·70	1·39	·15	·28	1·99	·59	3·20
Fevers	1·74	1·14	1·98	2·41	1·27	1·80	·83	1·60
Apoplexy	·25	·19	...	·45	...	·13	·12	·57
Dysentery and Diarrhœa	·59	·76	1·39	·90	1·70	1·28	·47	1·49
Hepatitis	...	·38	·20	...	·43	·26	·12	·11
Spleen diseases	1·24	·19	·40	·30	·28	·45	...	·23
Respiratory Diseases	·99	·38	·40	·75	·85	1·28	2·01	1·83
Heart diseases	...	...	·59	...	...	·06	·12	·11
Phthisis Pulmonalis	·75	·38	2·58	·91	·99	·45	·83	·34
Dropsy	...	·19	...	...	·14	·06	·24	·11
Scurvy	...	...	...	...	...	...	...	...
Atrophy and Anæmia	...	·38	·40	·15	·28	...	...	·34
All other Causes	1·00	·95	·79	1·06	·85	1·41	1·42	·92
Violent deaths	·25	1·14	·59	·15	·43	·32	·70	·34
Average annual death-rate	7·47	9·87	10·71	7·23	7·50	9·29	7·45	11·19

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XX.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS, of the EIGHT CHIEF STATIONS of ROHILCUND, MEERUT, AGRA and CENTRAL INDIA, occupied by NATIVE TROOPS during the TEN-YEAR PERIOD 1867—76.

	Ratios per 1,000 of Strength.							
	Bareilly.	Dehra Dun.	Roorkee.	Meerut.	Delhi.	Agra.	Morar.	Jhansi.
I. Daily sick-rate of each month.								
January	20·8	36·9	25·8	28·4	30·6	58·3	49·2	37·3
February	26·0	34·5	22·1	28·8	30·9	53·7	44·5	41·2
March	21·7	35·0	20·8	34·3	33·1	47·9	42·7	34·0
April	24·8	38·1	23·5	36·2	24·6	44·9	52·6	28·3
May	20·1	40·0	28·9	24·4	34·9	34·1	53·9	30·7
June	25·4	33·5	27·2	23·6	38·5	33·2	43·4	29·6
July	23·0	32·2	21·9	21·5	29·0	32·6	40·5	30·6
August	24·0	40·9	33·9	35·3	40·7	38·4	48·2	38·7
September	26·9	42·1	48·0	55·6	84·0	64·2	60·8	61·5
October	28·1	41·7	43·7	45·2	82·3	53·6	71·9	74·0
November	22·5	41·9	28·9	33·7	57·1	47·8	67·4	65·0
December	18·4	43·2	25·3	32·5	43·2	55·2	55·5	39·9
Average annual daily sick-rate	24·1	38·3	28·9	32·4	44·3	46·9	52·4	42·7
II. Admission-rate of each month.								
January	43·2	73·6	71·8	65·8	77·4	112·8	118·1	82·8
February	48·7	47·4	51·2	68·2	68·0	82·4	84·7	75·5
March	42·4	64·6	55·2	59·1	60·6	69·4	98·2	66·0
April	55·4	72·3	79·1	65·3	66·8	99·0	167·0	65·8
May	62·5	82·3	79·2	72·1	117·6	83·3	161·4	63·2
June	54·1	71·7	57·6	67·2	105·4	86·7	108·3	67·1
July	52·2	67·2	81·3	73·5	82·5	77·8	113·8	84·7
August	62·5	84·4	125·3	165·4	193·6	126·6	171·7	123·3
September	64·9	86·0	160·1	229·5	295·5	203·5	192·8	215·3
October	75·8	83·1	124·3	171·9	242·3	165·0	248·5	240·2
November	53·9	76·3	77·7	124·5	170·1	130·3	221·3	192·8
December	36·2	72·6	64·4	90·6	103·6	112·7	102·7	90·1
Average annual admission-rate	651·0	879·7	1014·1	1247·7	1556·9	1374·1	1804·8	1367·2
III. Composition of the average annual admission-rate.								
Cholera	·3	3·2	1·1	1·0	1·2	2·1	2·4	·3
Intermittent Fever	193·6	268·2	342·2	710·9	1042·1	549·1	1140·0	731·6
Remittent and Continued Fevers	8·4	5·9	38·4	20·4	11·0	12·1	8·7	6·7
Apoplexy	·7	...	...	·6	·8	1·1	2·0	·2
Dysentery	23·7	23·7	20·8	58·9	56·4	56·7	62·4	44·9
Diarrhœa	14·2	31·7	41·1	19·0	34·1	47·8	40·6	16·2
Hepatitis	·8	13·7	·7	1·9	·8	1·5	1·9	1·2
Spleen Disease	2·1	46·5	4·6	11·6	13·1	4·3	11·1	19·4
Respiratory Diseases	25·9	28·6	55·5	55·3	34·7	39·0	42·5	31·9
Phthisis Pulmonalis	1·5	8·7	2·4	1·5	1·1	2·4	2·4	·3
Dropsy	·1	·6	·2	·2	·6	·2	·3	·4
Scurvy	·7	·6	·2	1·5	·9	·5	4·6	1·1
Rheumatism	28·8	46·1	44·0	30·2	40·8	71·2	61·9	54·8
Venereal Diseases	24·3	44·2	32·0	29·3	18·9	54·3	54·7	75·9
Eye Diseases	28·7	71·1	21·2	23·2	6·3	28·0	26·4	27·6
Abscess and Ulcer	84·6	55·9	85·4	78·9	103·8	138·1	109·0	135·3
Wounds and Accidents	133·5	151·0	172·2	92·2	61·5	130·1	136·5	133·4
All other Causes	75·1	80·0	152·1	102·2	125·8	226·6	97·4	86·9
Average annual admission-rate	651·0	879·7	1014·1	1247·7	1556·9	1374·1	1804·8	1367·2
IV. Composition of the average annual death-rate.								
Cholera	·11	2·65	·55	·56	·61	1·08	1·61	·31
Fevers	1·43	1·89	1·28	3·84	5·79	4·09	2·13	1·83
Apoplexy	·22	...	...	·45	·46	·54	·65	...
Dysentery and Diarrhœa	·55	·76	·73	1·69	1·83	·76	1·42	1·22
Hepatitis	...	1·33	...	·34	·15	·21	·06	...
Spleen Disease	·11	1·14	·18	...	·46	·32	...	·15
Respiratory Diseases	1·43	1·14	1·47	2·69	2·75	2·16	2·07	1·98
Heart Diseases	·33	·38	·74	·23	...	...	·06	...
Phthisis Pulmonalis	·55	4·93	·73	·90	·30	·86	·65	·15
Dropsy	...	·38	...	...	·30	·11	·06	·15
Scurvy	...	...	...	...	...	...	·06	...
Atrophy and Anæmia	·55	·19	·73	1·13	1·37	·76	·13	·46
All other Causes	1·20	2·47	1·28	·99	·91	1·40	·58	1·38
Violent Deaths	·55	·76	·36	...	·30	·54	·52	·76
Average annual death-rate	7·03	18·02	8·04	12·64	15·23	12·74	10·00	8·39

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XXI.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY, on the AVERAGE of the TEN YEARS, of the CHIEF STATIONS of the PUNJAB from UMBALLA to AMRITSAR, occupied by NATIVE TROOPS during the TEN-YEAR PERIOD 1867—76.

	Ratios per 1,000 of Strength.						
	Umballa.	Jullundur.	Ferozepore.	Mooltan.	Sialkot.	Meean Meer.	Amritsar.
I.—Daily sick-rate of each month.							
January	30·3	59·8	40·1	37·7	30·5	49·8	29·2
February	30·7	46·8	40·4	34·5	28·7	40·9	25·6
March	25·8	39·6	39·3	28·4	30·6	40·0	16·9
April	24·5	43·2	32·5	27·0	30·6	34·7	23·1
May	26·5	39·1	24·2	21·9	28·1	33·0	24·5
June	25·6	40·2	25·1	24·9	27·8	29·2	25·2
July	26·2	42·6	28·5	28·6	28·9	24·9	20·9
August	45·4	61·6	37·0	44·7	34·6	42·2	34·1
September	65·1	90·4	49·8	80·9	46·6	68·1	63·0
October	64·9	84·3	63·7	84·3	45·0	91·1	56·8
November	45·1	76·5	45·3	67·5	40·1	93·5	46·1
December	35·2	57·3	37·2	46·2	31·3	69·5	38·0
Average annual daily sick-rate	36·3	56·8	38·7	44·0	33·6	50·6	33·8
II.—Admission-rate of each month							
January	55·6	108·4	96·6	69·9	63·2	111·3	70·8
February	44·1	70·7	91·6	53·3	52·2	80·2	58·8
March	39·4	68·0	72·0	56·7	50·6	79·2	51·8
April	53·9	95·4	77·6	50·8	64·3	79·3	74·1
May	68·9	98·5	80·0	61·4	66·5	85·9	93·9
June	73·6	100·5	86·5	83·9	64·4	78·7	91·5
July	77·8	111·2	106·4	82·3	71·3	79·1	101·3
August	176·0	187·3	157·2	162·9	118·1	177·1	195·6
September	253·8	248·1	196·8	398·4	141·4	272·3	339·2
October	227·5	218·7	212·2	280·1	123·6	356·4	253·0
November	124·1	102·9	137·4	175·4	101·5	270·9	168·4
December	65·3	120·4	113·6	96·7	56·4	168·5	117·9
Average annual admission-rate	1211·4	1619·0	1416·4	1469·5	980·1	1793·1	1641·0
III.—Composition of the average annual admission-rate.							
Cholera	1·0	·9	1·0	·3	·3	3·1	2·1
Intermittent Fever	669·0	886·6	949·9	940·0	383·6	1139·2	1109·7
Remittent and Continued Fevers	5·9	8·1	2·5	3·5	7·0	14·3	11·3
Apoplexy	·1	·4	...	·2	·4	·6	...
Dysentery	42·8	61·3	34·3	40·2	36·9	66·3	81·0
Diarrhœa	19·6	16·9	27·1	22·4	21·8	33·9	34·4
Hepatitis	1·3	2·6	·8	1·1	1·5	2·3	1·0
Spleen Disease	3·5	18·2	10·6	6·6	3·1	17·0	14·9
Respiratory Diseases	30·9	49·6	32·8	52·3	51·7	78·3	55·4
Phthisis Pulmonalis	1·3	3·8	1·7	1·4	·6	4·4	2·0
Dropsy	·7	·4	·2	...	·4	·6	...
Scurvy	·7	1·7	·5	2·6	2·9	1·7	1·0
Rheumatism	55·1	102·6	45·3	40·1	71·0	64·2	42·6
Venereal Diseases	30·2	33·9	15·7	18·3	29·8	22·8	26·4
Eye Diseases	50·1	22·0	38·5	39·6	34·6	25·0	14·9
Abscess and Ulcer	91·5	119·9	143·0	113·2	93·7	133·4	105·1
Wounds and Accidents	116·6	157·5	48·1	105·7	130·4	104·2	65·6
All other Causes	85·1	132·6	64·4	80·0	110·4	82·3	63·0
Average annual admission-rate	1211·4	1619·0	1416·4	1469·5	980·1	1793·1	1641·0
IV.—Composition of the average annual death-rate.							
Cholera	·35	·38	·17	·29	·13	1·45	1·54
Fevers	2·55	4·54	2·52	2·11	1·24	5·33	3·08
Apoplexy	...	...	...	·10	...	·32	...
Dysentery and Diarrhœa	1·05	·27	·51	·40	1·24	1·94	3·08
Hepatitis	·12	...	...	·10	·13	·24	...
Spleen Disease	...	·38	·17	...	...	·16	...
Respiratory Diseases	1·74	1·51	2·02	4·21	1·87	7·19	4·61
Heart Diseases	...	...	...	·10	·25	·08	...
Phthisis Pulmonalis	·23	·05	·50	·30	·50	·97	·51
Dropsy	·23	·19	...	...	·13	...	...
Scurvy	...	...	...	...	...	...	...
Atrophy and Anæmia	·46	1·32	...	·10	...	·49	·51
All other Causes	·81	·95	·67	1·00	·87	1·29	·51
Violent Deaths	·12	·95	·51	1·00	·38	·73	1·54
Average annual death-rate	7·66	13·44	7·07	9·62	6·74	20·19	15·38

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XXII.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY, on the AVERAGE of the TEN YEARS, of the CHIEF STATIONS of the PUNJAB from JHELUM to PESHAWAR, and the THREE HILL STATIONS occupied by GOORKHA REGIMENTS during the TEN-YEAR PERIOD 1867—76.

	Ratios per 1,000 of Strength.							
	Higher Punjab Stations.					Hill Stations—Goorkha Regiments.		
	Jhelum.	Rawalpindi.	Talagnon.	Nowshera.	Peshawar.	Almora.	Bakloh.	Dharmsala.
I.—Daily sick-rate of each month.								
January	24·5	33·6	25·0	53·7	42·6	40·3	29·2	28·9
February	23·9	29·6	19·0	40·7	34·5	40·1	26·7	27·3
March	20·9	29·5	18·0	30·7	27·5	38·5	25·7	29·2
April	20·3	30·6	17·9	25·6	23·8	38·1	33·6	35·0
May	23·9	27·9	18·6	21·8	25·5	35·3	32·9	38·1
June	22·2	27·0	17·6	24·7	28·2	38·6	30·9	36·7
July	23·8	26·6	18·9	33·7	29·8	42·3	30·0	39·0
August	27·6	29·4	22·7	37·3	39·7	42·2	35·7	36·4
September	38·4	38·1	25·3	54·7	71·4	42·4	47·4	46·6
October	48·7	41·7	27·6	74·3	118·2	39·5	36·5	53·1
November	48·6	41·8	33·8	89·0	109·3	39·1	39·7	45·7
December	32·8	39·1	28·0	66·1	67·4	34·7	38·0	32·7
Average annual daily sick-rate	29·6	32·5	23·1	46·5	51·2	39·2	33·5	37·3
II.—Admission-rate of each month.								
January	57·2	63·9	81·4	114·6	102·7	64·0	59·5	64·9
February	43·3	42·3	56·6	65·2	73·9	51·4	43·5	44·7
March	45·5	52·4	54·4	68·1	65·2	60·2	69·4	60·3
April	53·2	54·2	56·7	65·7	69·8	75·1	93·5	80·3
May	67·1	65·4	72·4	63·0	80·0	69·4	85·9	97·1
June	61·5	73·5	64·7	88·9	103·4	91·1	76·8	104·2
July	74·0	75·3	73·5	117·0	114·2	89·6	81·8	107·8
August	101·6	85·3	97·4	129·3	165·2	95·2	106·4	102·7
September	146·5	125·1	117·2	183·4	322·4	88·6	131·0	141·9
October	209·3	117·6	138·8	239·4	451·6	81·8	102·3	156·0
November	157·6	87·5	129·6	247·4	317·9	75·7	95·1	105·3
December	82·1	58·7	75·6	148·2	170·4	71·0	77·5	81·7
Average annual admission-rate	1088·7	883·8	1018·2	1516·5	2010·4	914·0	1009·3	1156·4
III.—Composition of the average annual admission-rate.								
Cholera	·8	·6	·2	...	8·9	1·5	...	9·7
Intermittent Fever	603·3	309·8	448·0	956·2	1337·9	326·2	355·0	588·6
Remittent and Continued Fevers	8·3	6·9	16·3	1·1	16·8	12·5	3·3	24·8
Apoplexy	·1	·4	·2	·2	·4	...	1·0	...
Dysentery	61·6	45·1	35·5	92·1	95·7	40·9	17·4	29·5
Diarrhœa	20·0	31·8	23·8	17·8	68·5	16·5	23·8	29·8
Hepatitis	1·5	2·1	·5	2·5	1·8	1·5	1·0	2·2
Spleen Diseases	3·0	5·2	7·6	8·4	28·6	2·5	9·7	4·6
Respiratory Disease	46·0	45·6	55·6	42·4	64·1	39·6	38·7	25·3
Phthisis Pulmonalis	·6	1·3	2·1	·6	1·4	3·0	1·3	4·2
Dropsy	·3	·3	·5	·2	·4	·2	·6	·7
Scurvy	·7	2·0	2·5	1·1	1·6	1·3	·4	2·9
Rheumatism	34·1	51·7	52·8	45·8	54·5	89·8	69·3	71·2
Venereal Diseases	29·6	27·4	29·8	19·4	23·8	98·3	24·2	29·5
Eye Diseases	28·6	23·1	25·2	24·4	24·1	28·2	34·1	39·5
Abscess and Ulcer	90·4	84·4	88·4	109·4	91·3	69·1	50·3	66·5
Wounds and Accident	84·5	102·1	118·2	106·7	90·0	81·5	209·6	143·1
All other Causes	81·3	84·0	120·0	88·2	97·6	101·4	109·6	84·3
Average annual admission-rate.	1088·7	883·8	1018·2	1516·5	2010·4	914·0	1009·3	1156·4
IV.—Composition of the average annual death-rate.								
Cholera	·42	·21	...	...	5·18	·50	...	4·00
Fevers	1·10	2·60	·92	3·57	5·18	1·34	1·16	2·91
Apoplexy	...	·14	·23	·16	·28	...	·39	...
Dysentery and Diarrhœa	·34	1·47	...	1·40	3·17	·83	·38	2·37
Hepatitis	·08	·07	...	...	·03	·17	...	·32
Spleen Diseases	...	·14	...	...	·28	·33	...	...
Respiratory Diseases	2·11	3·65	2·31	4·35	5·15	2·17	1·36	3·28
Heart Diseases	·17	·14	...	...	·41	·17	·58	...
Phthisis Pulmonalis	·26	·56	·46	·62	·52	1·67	·97	2·55
Dropsy	·08	...	...	...	·05	...	...	·18
Scurvy	...	·07	...	...	·11	·17	...	·55
Atrophy and Anæmia	·17	·84	·23	...	·72	...	·58	·55
All other Causes	·59	1·33	·46	·62	1·12	1·00	·97	2·91
Violent Deaths	1·10	·49	·46	·62	·74	·33	·77	·36
Average annual death-rate	6·42	11·71	5·07	11·34	22·94	8·68	7·16	20·02

II.—GENERAL STATISTICS OF STATIONS, 1867—76.

XXIII.

COMPARATIVE STATEMENT showing the ANNUAL RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS, of the STATIONS on the NORTH-WESTERN FRONTIER occupied by the PUNJAB FORCE during the TEN-YEAR PERIOD 1867—76.

	Ratios per 1,000 of Strength.						
	Murdan.	Abbottabad.	Kohat.	Edwardesabad.	Dera Ismail Khan.	Dera Ghazi Khan.	Rajanpore.
I.—Daily sick-rate of each month.							
January	68·5	34·5	47·2	57·6	43·4	48·8	51·0
February	50·2	31·8	39·2	47·5	39·6	46·3	48·5
March	42·0	26·6	37·9	39·5	32·2	38·1	42·4
April	36·1	23·8	25·0	30·1	26·5	27·8	35·4
May	38·2	29·4	26·4	31·9	31·5	26·7	41·3
June	40·9	32·8	29·8	32·5	30·7	27·3	39·8
July	41·4	34·6	32·7	32·9	29·0	28·5	42·0
August	47·0	43·8	44·6	39·6	38·0	40·3	49·8
September	56·9	55·8	73·1	52·2	48·8	65·8	66·1
October	84·4	62·2	90·8	80·2	61·5	82·7	107·8
November	80·0	47·9	76·2	98·3	65·7	74·2	112·1
December	72·9	44·7	54·6	75·8	53·3	53·9	70·2
Average annual daily sick-rate	55·6	39·1	47·5	52·5	41·7	46·9	59·1
II.—Admission-rate of each month.							
January	88·4	80·5	123·7	135·3	99·5	108·8	114·1
February	75·1	62·8	89·1	95·5	81·6	80·2	84·7
March	84·0	65·1	76·2	87·1	68·0	78·8	98·1
April	80·5	71·4	78·3	84·5	64·3	78·4	98·0
May	100·2	103·1	99·3	103·7	100·0	84·3	111·0
June	114·9	106·4	104·0	107·3	89·9	85·1	105·4
July	114·6	117·7	115·2	106·1	89·8	94·3	115·2
August	151·0	103·6	200·9	140·6	125·2	161·3	145·7
September	156·5	195·3	260·3	202·0	169·7	274·2	186·0
October	212·5	184·8	332·8	362·7	238·9	340·0	241·3
November	157·5	135·2	235·9	350·6	217·4	231·8	248·2
December	97·7	102·5	155·2	208·6	132·7	126·2	129·7
Average annual admission-rate	1423·5	1378·8	1867·2	1970·2	1452·9	1706·7	1789·5
III.—Composition of the average annual admission-rate.							
Cholera	·8	2·0	13·8	2·4	·2	·3	...
Intermittent Fever	588·7	761·9	1133·4	1176·3	784·9	1008·7	1022·3
Remittent and Continued Fevers	9·0	6·1	12·6	22·1	11·9	14·7	6·6
Apoplexy	...	·3	·6	1·3	·8	·7	1·1
Dysentery	27·0	36·6	90·9	97·1	70·2	61·8	52·3
Diarrhœa	53·5	49·9	75·1	58·9	29·1	22·2	14·8
Hepatitis	6·2	2·9	1·7	1·8	1·5	1·0	1·3
Spleen Disease	9·3	7·3	12·5	16·6	18·5	13·8	7·5
Respiratory Diseases	80·3	69·0	67·9	71·7	48·9	72·6	40·6
Phthisis Pulmonalis	2·4	3·3	1·2	1·9	1·9	1·3	·9
Dropsy	·2	·1	·2	·3	·5	·3	...
Scurvy	1·7	4·1	2·1	2·2	2·2	3·0	3·5
Rheumatism	80·9	57·3	61·2	57·4	48·5	57·3	59·8
Venereal Diseases	33·6	24·7	22·6	17·6	25·8	16·2	15·4
Eye Diseases	63·3	33·5	20·2	25·9	23·1	20·1	24·5
Abscess and Ulcer	113·6	80·0	118·2	148·7	108·5	159·0	233·0
Wounds and Accidents	213·0	141·5	111·2	129·5	108·4	135·5	215·4
All other Causes	140·9	98·3	121·8	139·4	108·9	114·2	99·5
Average annual admission-rate	1423·5	1378·8	1867·2	1970·2	1452·9	1706·7	1789·5
IV.—Composition of the average annual death-rate.							
Cholera	·36	·42	9·38	1·62	·18	...	...
Fevers	·72	1·60	5·39	4·80	2·88	3·18	1·35
Apoplexy	...	·07	·34	·81	·67	·34	·44
Dysentery and Diarrhœa	·84	·97	1·40	1·37	·97	·90	1·35
Hepatitis	·59	·07	...	·12	·12	·07	...
Spleen Disease	·12	·07	·25	·12	·36	·14	...
Respiratory Diseases	2·03	3·33	4·75	6·42	4·01	7·54	3·09
Heart Diseases	·24	...	·34	·19	·18	·14	·44
Phthisis Pulmonalis	·83	1·11	·21	·59	·43	·34	·44
Dropsy	...	·07	·08	...	·06	·14	...
Scurvy	...	·07	...	·19	...	...	...
Atrophy and Anæmia	·12	...	·46	·36	·12	·34	...
All other Causes	1·31	1·74	·98	1·55	1·34	·90	1·32
Violent Deaths	·24	·63	·29	·44	·24	·35	·66
Average annual death-rate	7·90	10·15	23·76	18·69	12·33	14·38	9·49

III.—STATISTICS OF SELECTED STATIONS,—BARRACKPORE, 1867—76.

XXIV.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying BARRACKPORE during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent, and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	9,474	534	56·4	33	...	2	...	...	5	3	...	2	3	...	2	5	1	2	...	3	4	...	1	...
February	9,098	462	50·8	14	...	...	...	...	1	...	...	2	3	...	4	1	...	1	...	1	1	1	...	...
March	9,155	513	56·0	25	...	6	...	...	4	1	...	2	3	...	3	2	...	1	...	1	1	...	1	...
April	8,559	497	58·3	17	...	6	...	...	1	...	1	2	3	...	1	...	...	2	...	...	1	...	...	...
May	8,107	400	49·3	8	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	1	2	...	...	1
June	8,022	354	44·1	15	...	1	...	...	4	3	1	...	1	...	...	1	...	2	1	...	1	...	...	...
July	8,198	362	44·2	7	...	...	...	...	...	1	...	2	...	...	1	1	...	...	...	...	...	...	...	...
August	8,333	413	49·6	10	...	1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	1	...	...
September	8,483	453	53·4	9	...	2	...	...	...	1	...	2	...	...	2	...	...	...	...	...	...	1	...	1
October	8,885	637	71·7	16	...	2	...	...	1	...	...	5	2	...	1	1	...	...	...	1	1	...	2	...
November	8,044	705	87·6	19	...	1	...	...	...	...	...	2	...	...	...	1	...	...	...	2	2	1	1	...
December	7,326	529	71·0	19	...	1	...	...	...	...	...	3	1	...	...	...	...	2	...	2	5	...	1	...
						32	...	1	27	17	2	23	16	...	19	13	1	10	1	11	17	3	7	2
						Died per 1,000 of the Average Strength.																		
For the ten years ...	8,470	488	57·6	192	22·67	2·60	...		5·31		·24	2·71	1·89	...	2·24	1·53	·12	1·18	·12	1·30	2·01	·35	·83	·24

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	3	1	6	6	...	1	3	1	2	4	1	1	29	3·4	7·586
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Enteric Fever	...	...	...	...	2	...	...	...	...	...	...	...	2	·2	50·00
Fever, Intermittent ...	295	209	321	754	360	289	419	641	606	743	644	550	5,804	685·2	·47
Fevers, Remittent and Continued	12	5	6	11	12	10	15	12	5	9	8	7	112	13·2	15·18
Apoplexy	...	...	...	1	...	1	...	...	...	...	...	...	2	·2	100·00
Dysentery	132	69	70	75	60	46	66	73	78	105	83	92	949	112·1	2·53
Diarrhœa	69	44	49	42	35	25	55	46	50	60	67	60	591	69·8	
Hepatitis	1	2	...	1	1	2	2	1	1	1	...	1	13	1·6	.....
Spleen Disease	18	29	21	25	21	19	20	25	29	26	30	23	277	32·7	6·86
Respiratory Diseases ...	54	53	34	21	26	21	16	15	26	32	49	31	380	44·9	3·42
Phthisis Pulmonalis ...	1	3	...	2	2	2	1	3	...	2	...	3	19	2·2	52·63
Dropsy	...	...	...	...	1	...	...	...	2	...	...	...	3	·4	33·33
Scurvy	5	6	4	11	1	1	4	...	3	16	31	14	96	11·3	11·46
Rheumatism	48	62	54	43	27	27	46	35	29	36	32	41	480	56·7	
Venereal Diseases ...	31	27	34	33	18	17	21	23	15	24	29	16	288	34·0	
Eye Diseases	8	10	13	8	6	6	11	7	9	7	4	3	92	10·9	·76
Abscess and Ulcer ...	34	38	34	25	33	43	46	44	42	37	41	32	449	53·0	
Wounds and Accidents ...	59	67	103	54	58	39	79	86	68	76	77	71	837	98·8	
All other Causes ...	88	113	142	122	105	102	110	119	99	206	169	103	1,538	181·6	
Dengue	...	...	...	15	203	92	25	4	...	...	...	...	339	40·0	.....
	858	720	882	1,231	969	734	930	1,135	1,054	1,444	1,265	1,048	12,300		
	Admitted per 1,000 of the Average Strength in each Month.														
	90·6	79·1	96·3	146·8	119·5	91·5	113·4	136·2	125·4	162·5	157·3	143·1	1452·2		

III.—STATISTICS OF SELECTED STATIONS,—BARRACKPORE, 1867—76.

XXV.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying BARRACKPORE in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	953	26·6	21·2	22·4	30·3	17·1	24·9	22·3	17·3	15·9	38·9	58·5	64·5	27·3
1868	1,044	50·1	45·5	48·2	41·5	31·8	29·1	29·9	36·8	33·7	47·6	49·4	83·4	46·0
1869	826	76·4	23·7	36·3	30·2	28·8	35·8	33·0	38·4	43·3	49·4	51·0	56·5	43·6
1870	675	65·4	30·7	42·7	49·8	45·7	40·6	45·4	61·7	48·1	44·2	60·3	66·7	51·9
1871	529	52·7	46·3	63·2	55·0	22·0	14·9	29·4	57·9	42·4	48·7	58·2	28·9	43·5
1872	707	30·7	48·2	88·2	95·8	92·3	79·4	64·9	77·6	85·9	105·9	91·6	83·1	82·0
1873	819	58·4	58·3	63·4	46·9	31·5	43·4	49·3	39·2	48·1	37·3	69·5	63·1	48·8
1874	1,031	69·4	68·2	74·6	105·2	96·8	72·0	63·0	61·6	67·4	74·2	84·4	100·8	77·3
1875	922	94·1	97·4	80·6	56·5	42·1	42·0	63·0	68·9	76·5	184·8	252·9	25·0	92·3
1876	934	57·7	49·4	58·9	59·8	66·4	49·1	39·4	52·3	70·2	79·5	67·8	79·9	61·0
Ten years, 1867—76 ...	8,470	56·4	50·8	56·9	58·3	49·3	44·1	44·2	49·6	53·4	71·7	87·6	71·0	57·6

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Intermittent Fevers.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	1·1	40·9	6·2	...	96·5	82·9	1·1	7·3	26·2	...	...	4·2	37·8	39·9	4·2	33·6	72·4	89·2	895·5
1868	4·8	306·8	11·5	...	116·9	44·1	2·9	7·7	36·4	1·9	...	14·4	62·3	56·5	11·5	51·7	82·4	71·8	943·8
1869	2·4	324·5	12·1	...	119·9	15·7	1·2	17·0	20·6	...	...	2·4	36·3	12·1	3·6	12·1	65·4	33·9	679·2
1870	4·4	494·9	13·3	...	120·0	32·6	1·5	4·4	69·6	4·4	...	8·9	60·8	50·4	20·7	93·3	100·7	112·6	1138·5
1871	1·9	436·6	18·9	...	62·4	62·4	...	3·8	60·5	3·8	...	7·6	83·2	37·8	5·7	52·9	102·1	109·6	1049·2
1872	7·1	396·7	19·8	1·4	118·8	135·8	4·2	28·3	84·9	7·1	...	43·9	83·5	24·0	9·9	49·5	114·5	67·8·9	2383·3
1873	1·2	509·0	12·2	1·2	45·9	78·1	2·4	14·7	39·1	...	3·7	4·9	34·2	24·4	6·1	45·2	59·8	178·3	1149·4
1874	3·0	1005·9	4·9	...	104·8	169·8	1·0	71·2	42·5	3·0	...	14·8	134·5	41·5	15·8	63·3	158·3	329·4	2402·8
1875	4·3	606·2	26·1	...	103·0	53·1	...	13·2	35·8	2·1	...	14·1	23·9	29·3	15·2	62·9	26·1	45·7	1380·9
1876	4·1	1367·0	3·1	...	186·0	7·3	1·0	19·3	53·9	2·1	...	2·1	19·3	21·3	14·2	69·1	191·0	176·8	2469·6
Ten years, 1867—76 ...	3·4	685·2	13·4	·2	112·1	69·8	1·6	32·7	44·9	2·2	·4	11·3	56·7	31·0	10·9	53·0	98·8	221·6	1452·2

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	...	11·54	11·54	11	...	3	...	4	...	1	...	...	...	...	...	1	1	1
1868	3·83	29·70	33·53	35	4	9	...	5	...	1	5	1	...	...	...	5	1	...
1869	1·21	21·79	23·00	19	1	10	...	1	...	2	1	...	...	...	...	3	1	...
1870	4·44	17·78	22·22	15	3	2	...	4	...	...	...	...	1	1	...	1	1	...
1871	1·89	11·34	13·23	7	1	1	...	1	...	1	1	...	1	...	...	...	...	...
1872	1·41	22·64	24·05	17	1	3	1	1	...	...	1	...	3	...	...	3	...	3
1873	1·22	17·09	18·31	15	1	4	1	1	...	...	3	...	...	...	...	2	...	...
1874	3·96	11·87	15·83	16	4	1	...	8	...	2	1	...	...	...	...	...	1	...
1875	2·17	34·71	36·88	34	2	7	...	7	...	12	...	...	1	...	...	...	...	1
1876	4·08	19·29	23·37	23	5	5	...	7	...	...	1	...	1	...	...	3	2	1
Ten years, 1867—76 ...	2·60	20·07	22·67	192	22	45	2	39	...	19	13	1	10	1	11	17	7	5

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	...	1	...	...	...	...	...	1
1868	...	...	1	...	...	1	...	...	...	2	...	1	5
1869	...	...	1	...	...	...	...	1	...	...	...	...	2
1870	...	...	3	...	...	...	...	...	...	...	...	...	3
1871	...	...	...	1	...	...	...	...	...	...	...	...	1
1872	...	...	...	...	...	...	2	...	...	2	1	...	5
1873	...	...	...	...	...	...	...	...	1	...	...	...	1
1874	...	...	...	3	...	...	...	...	...	...	...	...	3
1875	3	...	...	...	...	...	...	...	1	...	...	...	4
1876	...	1	1	2	...	...	...	...	...	...	...	...	4
Ten years, 1867—76 ...	3	1	6	6	...	1	3	1	2	4	1	1	29

III.—STATISTICS OF SELECTED STATIONS,—DIBRUGARH,* 1867—76.

XXVI.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying DIBRUGARH during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital. Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	Died out of Hospital.
January	8,022	304	37·9	5	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	1	...
February	8,150	280	34·4	25	...	...	...	...	3	1	...	1	...	...	1	2	1	1	...	...	...	3	1	11
March	7,997	222	27·8	5	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	1
April	8,031	255	31·8	10	...	3	3	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...
May	7,938	230	30·5	9	...	5	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
June	7,888	329	41·7	8	...	3	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...
July	7,822	361	46·2	6	...	2	...	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	1
August	7,832	403	51·5	10	...	1	...	...	1	3	...	2	1	...	...	1	...	...	...	...	...	...	...	...
September	7,854	437	55·6	14	...	1	...	...	1	1	...	1	1	1	...	1	1	...	...	...	...	...	...	1
October	7,938	446	56·2	5	...	...	...	...	1	...	...	2	...	...	...	...	...	2	...	...	...	1	1	4
November	7,354	397	53·9	3	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	1
December	7,415	397	41·4	14	...	1	...	...	3	...	...	2	2	...	...	2	...	2	1	...	...	...	...	1
						18	3	...	8	6	1	11	4	2	1	9	4	12	1	...	2	6	7	20
						Died per 1,000 of the Average Strength.																		
For the ten years ...	7,853	336	42·8	114	14·52	2·29	·38	1·78			·13	1·40	·51	·25	·13	1·15	·51	1·53	·13	...	·25	·64	·89	2·55

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	1	...	1	9	7	6	4	2	2	5	1	2	40	5·1	45·00
Smallpox	...	1	4	5	1	...	...	...	...	...	...	...	11	1·4	27·27
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	206	175	180	213	265	429	594	962	1,014	1,126	739	406	6,290	802·1	·13
Fevers, Remittent and Continued	1	5	...	1	1	6	9	12	8	4	4	1	52	6·6	11·54
Apoplexy	1	...	...	...	...	...	...	...	...	1	...	1	3	·4	33·33
Dysentery	60	63	44	83	102	100	99	74	66	72	57	54	873	111·2	1·02
Diarrhœa	25	21	28	36	99	89	87	52	49	49	44	28	598	76·1	1·02
Hepatitis	...	...	4	...	...	...	1	1	1	1	...	3	11	1·4	18·18
Spleen Disease ...	14	7	5	3	6	4	2	12	2	9	8	9	91	11·6	1·10
Respiratory Diseases ...	65	34	45	60	37	32	37	36	35	22	39	37	479	61·0	1·88
Phthisis Pulmonalis ...	...	1	...	2	...	2	1	...	2	3	...	2	13	1·7	92·31
Dropsy	4	1	...	1	1	...	1	...	...	1	...	2	11	1·4	9·09
Scurvy	2	...	1	1	3	1	1	2	...	1	1	...	13	1·7	...
Rheumatism	66	59	48	49	61	49	52	44	45	46	63	62	620	79·7	
Venereal Diseases ...	17	8	19	7	16	7	16	21	14	13	15	13	164	20·9	
Eye Diseases	6	8	12	7	11	19	18	16	26	20	10	5	158	20·1	
Abscess and Ulcer ...	103	77	58	67	86	118	101	99	81	95	97	67	1,038	132·2	41
Wounds and Accidents ...	110	73	65	95	134	117	120	80	94	91	82	88	1,149	146·3	
All other Causes ...	73	69	87	103	159	136	109	102	133	107	104	76	1,249	159·0	
	844	602	601	733	980	1,104	1,232	1,536	1,582	1,557	1,262	835	12,878		
	Admitted per 1,000 of the Average Strength in each Month.														
	105·2	73·9	75·2	91·3	123·5	140·9	160·1	192·3	201·4	196·1	171·6	115·3	1639·9		

* Including the Outposts of Upper Assam.

III.—STATISTICS OF SELECTED STATIONS,—DIBRUGARH, 1867—76.

XXVII.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying DIBRUGARH in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	912	42·7	37·5	44·6	39·0	46·9	51·3	48·2	52·5	82·1	71·0	74·5	53·5	54·8
1868	887	40·1	32·0	24·7	27·2	31·3	39·9	39·0	46·4	39·7	49·7	36·5	29·3	35·0
1869	845	36·6	21·4	16·3	26·2	29·0	24·4	31·3	26·3	45·4	61·3	60·6	39·2	33·1
1870	813	39·7	38·4	14·7	17·5	25·3	37·2	57·9	73·5	68·0	60·0	52·4	41·0	43·0
1871	767	41·0	30·5	22·7	28·5	32·8	35·3	30·4	36·6	42·9	35·7	42·0	33·1	33·9
1872	689	34·2	25·1	26·9	37·2	57·3	51·6	41·0	41·8	51·0	49·2	39·4	27·8	40·6
1873	739	32·9	33·1	20·0	19·4	32·4	29·3	29·4	44·0	53·4	75·7	38·2	32·4	36·5
1874	723	23·3	21·9	17·5	43·1	39·2	48·3	82·9	102·6	80·2	70·0	93·2	59·3	55·3
1875	702	46·7	66·0	74·7	59·6	47·3	56·3	54·0	58·0	67·2	57·1	54·2	61·8	57·0
1876	775	47·0	47·1	34·4	27·5	31·7	48·7	46·5	37·4	33·6	44·3	50·5	34·6	40·0
Ten years 1867—76 ...	7,853	37·9	31·4	27·8	31·8	39·5	41·7	46·2	51·5	55·6	56·2	53·9	41·4	42·8

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																		Admission-rate of each year and of the period.
	Cholera.	Intermittent Fevers.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	8·8	956·1	8·8	1·1	98·7	149·1	2·2	7·7	57·0	2·2	1·1	4·4	106·9	31·8	17·5	171·0	168·9	207·2	1994·5
1868	2·3	652·8	3·4	1·1	89·1	90·2	2·3	5·6	39·4	...	...	2·3	72·1	9·0	21·4	106·0	100·3	155·6	1361·9
1869	9·5	804·7	7·1	1·2	98·2	104·1	...	9·5	39·1	1·2	2·4	...	65·1	5·9	28·4	78·1	104·1	142·0	1326·6
1870	1·2	883·2	12·3	...	94·7	48·7	1·2	20·9	75·0	1·2	3·7	1·2	60·3	2·5	18·5	114·4	137·8	119·3	1504·1
1871	1·3	558·0	1·3	...	99·1	43·0	2·6	13·0	44·3	5·2	3·9	...	56·1	6·5	33·9	126·5	117·4	118·6	1239·7
1872	5·8	630·0	1·4	...	108·9	116·1	...	10·2	65·3	4·3	...	2·9	60·9	2·9	16·0	139·2	139·6	217·7	1531·2
1873	2·7	945·8	4·1	...	82·5	47·4	2·7	8·1	48·7	...	...	...	43·3	14·9	4·1	89·3	102·9	109·6	1506·1
1874	18·0	1165·2	13·8	...	134·2	59·5	1·4	13·8	55·3	1·4	...	1·4	74·7	48·4	16·6	143·8	125·9	214·4	2085·8
1875	1·4	829·5	11·4	...	158·1	41·3	1·4	27·1	114·0	...	...	4·3	132·5	65·5	31·2	198·0	333·3	227·9	2170·9
1876	...	583·2	2·6	...	160·0	46·5	...	2·6	81·3	1·3	2·6	...	131·6	27·1	10·3	172·9	150·9	101·9	1474·8
Ten years, 1867—76 ...	5·1	902·1	6·6	·4	111·2	76·1	1·4	11·6	61·0	1·7	1·4	1·7	79·7	20·9	20·1	132·2	146·3	160·4	1639·9

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes	Violent Deaths.
1867	3·29	9·87	13·16	12	3	8	...	3	...	...	...	1	2	...	...	...	...	1
1868	1·13	7·89	9·02	8	1	...	...	...	...	...	2	...	...	...	...	1	2	1
1869	5·92	10·65	16·57	14	5	...	1	3	...	...	1	...	1	...	...	...	2	1
1870	...	12·30	12·30	10	...	4	...	1	...	...	1	1	2	1	...	...	1	...
1871	...	13·04	13·04	10	...	1	...	1	...	...	1	1	3	...	...	...	1	3
1872	2·90	11·61	14·51	10	2	1	...	1	...	...	1	...	2	...	...	...	...	3
1873	1·35	9·48	10·83	8	1	2	...	3	...	...	1	...	...	...	...	...	1	1
1874	8·30	11·06	19·36	14	6	3	...	4	...	...	...	...	...	...	...	...	2	...
1875	...	24·22	24·22	17	...	1	...	...	...	...	...	...	...	...	...	1	1	14*
1876	...	14·19	14·19	11	...	1	...	1	...	1	2	1	2	...	...	...	1	2
Ten years, 1867—76 ...	2·29	12·23	14·52	114	18	14	1	15	2	1	9	4	12	1	...	2	10	25

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	1	...	...	1	1	...	1	2	1	1	8
1868	...	...	...	...	...	1	...	1	...	...	...	...	2
1869	1	...	...	1	1	3	...	1	...	1	...	...	8
1870	...	...	...	...	...	...	1	...	...	...	...	...	1
1871	...	...	...	...	...	...	...	...	1	...	...	...	1
1872	...	...	...	...	1	1	...	...	...	2	...	...	4
1873	...	...	...	1	...	...	1	...	...	...	...	...	2
1874	...	...	...	7	5	...	...	...	...	...	...	1	13
1875	...	...	...	...	...	...	1	...	...	...	...	...	1
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten years, 1867—76 ...	1	...	1	9	7	6	4	2	2	5	1	2	40

* Nine of these men were killed by the Nagas while escorting a Survey Party.

III.—STATISTICS OF SELECTED STATIONS,—BAXA, 1867—76.

XXVIII.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the NATIVE TROOPS occupying BAXA during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital. Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	Died out of Hospital.
January	6,719	283	42·1	10	...	...	...	...	2	...	...	1	3	...	...	3	...	...	...	1	...	...	...	...
February	6,642	289	43·5	5	...	...	...	...	1	...	...	1	2	...	...	...	...	...	1	...	...	...	1	...
March	6,537	287	43·9	10	...	...	...	...	1	...	...	3	3	...	...	1	...	...	...	...	...	...	2	...
April	6,147	335	54·5	16	...	4	...	...	1	...	...	1	4	...	...	3	...	1	...	...	1	...	...	1
May	5,908	431	69·6	11	...	1	...	...	2	1	...	1	1	...	...	3	1	...	...	...	...	...	1	...
June	5,809	433	74·5	7	...	...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	2	2
July	5,804	424	73·1	14	...	...	...	...	2	2	...	2	2	...	...	3	...	1	...	...	...	...	1	1
August	5,881	395	67·2	16	...	...	...	...	4	...	...	2	2	...	...	2	1	1	1	...	...	...	3	1
September	5,967	388	65·0	29	...	...	...	...	2	1	...	1	6	1	...	1	1	...	1	4	1	...	3	...
October	5,845	384	65·7	22	...	...	...	...	2	5	...	1	3	1	...	...	2	1	...	5	1	...	1	...
November	6,191	399	63·0	12	...	...	...	...	1	1	...	...	2	...	...	1	1	...	...	3	...	...	2	1
December	6,701	376	56·1	14	...	...	...	...	1	1	...	1	3	...	1	...	1	1	...	2	1	...	2	...
						...	5	...	18	12	...	13	31	1	1	18	7	5	3	15	4	...	18	6
						Died per 1,000 of the Average Strength.																		
For the ten years ...	6,179	366	59·2	157	25·41	...	·81		4·86		...	2·10	5·02	·16	·16	2·91	1·13	·81	·49	2·43	·65	...	2·91	·97

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	...	1	...	...	1	...	...	...	2	·3	.....
Smallpox	...	...	...	10	2	...	...	...	...	...	...	...	12	1·9	41·67
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fever, Intermittent ...	153	137	146	186	336	273	230	211	169	200	315	185	2,532	409·8	·71
Fevers, Remittent and Continued	1	6	5	17	50	9	16	8	17	26	9	5	169	27·4	7·10
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Dysentery	90	49	100	138	72	91	52	29	28	16	51	88	802	129·8	3·39
Diarrhœa	32	33	37	50	72	78	33	30	25	27	35	39	497	80·4	
Hepatitis	2	1	...	1	1	3	1	...	3	1	...	...	13	2·1	7·69
Spleen Disease	3	2	...	3	3	5	5	1	...	5	2	4	33	5·3	3·03
Respiratory Diseases ...	41	45	40	20	21	35	32	24	27	43	28	43	414	67·0	4·35
Phthisis Pulmonalis ...	...	1	1	1	1	...	...	3	1	...	...	1	9	1·5	55·56
Dropsy	...	1	...	...	...	...	1	1	...	1	1	1	6	1·0	50·00
Scurvy	3	10	11	11	17	2	16	10	15	27	8	8	138	22·3	10·87
Rheumatism	29	34	32	16	29	23	19	34	25	28	41	28	329	53·2	
Venereal Diseases ...	11	11	11	12	4	8	8	9	4	9	8	8	103	16·7	
Eye Diseases	7	2	6	11	9	6	8	8	7	6	4	10	84	13·6	
Abscess and Ulcer ...	50	30	39	60	69	59	49	39	27	28	31	47	519	84·0	·86
Wounds and Accidents ...	58	72	68	81	87	71	83	60	59	92	140	104	975	157·8	
All other Causes ...	102	95	126	115	129	129	100	111	86	103	120	143	1,350	218·5	
	532	529	631	738	884	784	653	534	483	612	793	714	7,987		
	Admitted per 1,000 of the Average Strength in each Month.														
	86·6	79·6	96·5	120·1	149·6	135·0	112·5	99·3	80·9	101·7	128·1	106·6	129·2·6		

III.—STATISTICS OF SELECTED STATIONS,—BAXA, 1867—76.

XXIX.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying BAXA in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	698	27·2	29·9	41·7	73·1	68·2	81·4	63·6	54·5	47·1	55·0	68·8	47·5	51·4
1868	637	36·5	33·4	22·7	19·8	20·3	30·6	41·9	28·5	34·7	49·0	36·9	26·5	31·4
1869	611	39·5	25·1	37·0	43·9	72·1	83·6	99·1	76·1	85·2	83·9	70·5	50·8	62·2
1870	579	46·0	43·3	42·4	42·7	38·4	38·2	34·7	32·5	32·2	69·5	69·8	45·4	46·6
1871	590	41·3	54·0	82·3	81·9	82·3	77·4	55·2	40·9	48·7	69·6	55·0	46·2	59·3
1872	611	37·3	36·2	41·7	41·4	45·0	54·8	31·3	27·9	26·8	39·1	28·5	37·8	36·0
1873	632	34·3	55·6	51·2	53·0	117·9	97·6	85·2	110·9	102·4	90·9	87·9	90·6	80·7
1874	574	62·7	65·9	68·3	113·6	145·7	148·7	158·2	150·9	131·2	105·2	80·6	58·1	106·3
1875	601	41·4	39·3	29·3	46·9	38·9	49·3	58·4	67·2	73·0	75·6	85·0	87·2	60·5
1876	587	59·9	61·3	26·8	31·4	59·4	85·5	98·2	77·9	47·8	44·4	42·4	44·4	56·2
Ten years, 1867—76 ...	6,179	42·1	43·5	43·9	54·5	69·6	74·5	73·1	67·2	65·0	65·7	63·0	56·1	59·2

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Intermittent Fevers.	Remittent and Continued Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	1·4	245·0	25·8	...	171·9	57·3	...	...	60·2	...	...	10·0	38·7	22·9	11·5	98·8	103·2	174·8	1021·5
1868	...	285·7	9·4	...	40·8	11·0	...	...	62·8	...	1·6	1·6	33·0	7·9	11·0	12·5	26·7	69·0	573·0
1869	...	392·7	14·8	...	158·8	119·5	1·6	...	45·8	1·6	...	67·1	68·7	25·2	16·4	65·5	130·9	275·0	1384·6
1870	...	475·0	6·9	...	171·0	127·8	...	...	55·3	1·7	...	29·4	67·3	13·8	...	88·1	117·4	190·0	1343·7
1871	...	283·0	45·8	...	135·6	139·0	3·4	3·4	125·4	3·4	...	64·4	94·9	11·9	13·5	105·1	196·6	294·9	1352·3
1872	...	325·7	16·4	...	94·9	94·9	1·6	1·6	104·8	...	...	13·1	27·8	8·2	4·9	62·2	126·0	163·7	1045·8
1873	...	637·6	72·8	...	159·8	39·6	6·3	19·0	38·0	1·6	7·9	22·2	38·0	25·9	11·1	93·2	52·2	147·2	1373·4
1874	...	437·3	3·5	...	92·3	59·2	5·2	12·2	14·0	...	...	14·0	74·9	17·4	29·9	102·8	313·6	341·4	1508·7
1875	1·5	459·9	3·0	...	228·4	81·7	1·5	4·5	45·4	1·5	...	6·0	27·2	12·1	28·7	83·2	266·3	238·1	1541·2
1876	...	579·2	26·7	...	29·0	85·2	1·7	13·6	122·7	5·1	...	...	71·5	18·7	17·0	132·9	265·7	209·2	1608·2
Ten years, 1867—76 ...	·3	409·8	27·4	...	129·8	80·4	2·1	5·3	67·0	1·5	1·0	22·3	53·2	16·7	13·6	84·0	157·8	220·4	1292·6

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	...	28·65	28·65	20	...	5	...	4	...	...	2	4	1	...	2	...	2	...
1868	...	17·27	17·27	11	...	...	...	...	1	...	4	2	...	1	...	...	2	...
1869	...	37·64	37·64	23	...	5	...	4	...	...	4	...	1	...	6	...	...	3
1870	...	29·36	29·36	17	...	3	...	9	...	...	...	...	...	...	3	...	...	2
1871	...	13·56	13·56	8	...	...	...	4	...	...	...	...	1	...	1	...	2	...
1872	...	9·82	9·82	6	...	...	...	3	...	...	2	...	...	...	1	...	...	...
1873	...	66·46	66·46	42	...	8	...	10	...	...	2	...	1	2	2	...	13	1
1874	...	27·87	27·87	16	...	6	...	6	...	...	...	...	...	...	...	3	1	...
1875	...	15·13	15·13	10	...	3	...	4	...	1	...	1	1	...	...	...	...	...
1876	...	6·81	6·81	4	...	...	...	...	...	...	1	...	...	...	...	1	2	...
Ten years, 1867—76 ...	...	25·41	25·41	157	...	30	...	44	1	1	18	7	5	3	15	4	23	6

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.											Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	...	...	...	1	...	...	...	1
1868	...	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	...	...	...	...	...	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	1	...	...	...	...	...	...	1
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten years, 1867—76 ...	...	...	...	...	...	1	...	...	1	...	...	...	2

III.—STATISTICS OF SELECTED STATIONS,—LUCKNOW, 1867—76.

XXX.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the NATIVE TROOPS occupying LUCKNOW during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	15,668	490	31·3	6	...	...	...	...	1	...	...	...	...	...	1	2	...	...	...	...	...	1	1
February	16,094	569	34·1	6	...	...	...	...	1	...	...	4	...	...	...	1	...	...	...	...	...	...	...
March	16,622	633	39·3	18	...	...	...	...	3	4	...	5	...	...	...	3	...	...	...	...	...	2	1
April	14,554	568	38·0	17	1	5	3	...	1	1	...	2	1	...	2	1	...	1	...	...	...	2	...
May	15,097	509	33·9	13	...	4	3	...	...	...	1	...	...	...	...	2	1	...	...	...	...	...	...
June	15,230	465	30·5	15	...	4	3	...	1	2	...	...	...	1	...	...	...	1	1	...	...	1	1
July	15,495	516	33·3	8	...	5	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...
August	15,486	594	38·4	13	...	6	...	...	1	...	...	...	...	...	1	1	...	...	...	...	1	3	...
September	15,892	593	38·3	7	...	2	...	...	...	...	...	1	...	...	1	2	...	1	...	...	...	...	...
October	15,826	601	38·0	19	...	3	...	...	3	...	...	4	1	1	...	2	...	2	...	...	...	3	...
November	15,640	600	38·4	14	...	2	...	...	2	3	...	...	1	1	...	2	...	1	...	...	1	1	...
December	15,254	516	33·8	9	...	...	...	...	1	1	1	...	1	1	2	2	...	...	...	...	...	...	...
						31	9	...	14	11	2	16	4	4	7	20	1	7	1	...	...	2	13	3
						Died per 1,000 of the Average Strength.																		
For the ten years ...	15,614	536	35·6	145	9·29	1·99	·58		1·69		·13	1·02	·26	·26	·45	1·28	·06	·45	·06	...	...	·13	·83	·19

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	1	...	9	5	4	6	7	2	7	3	...	44	2·8	70·45
Smallpox	3	7	11	10	4	4	...	...	...	...	...	...	39	2·5	23·08
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	281	339	571	451	443	389	623	812	747	864	672	313	6,505	416·6	·22
Fevers, Remittent and Continued	2	2	6	13	5	5	6	6	21	14	8	4	92	5·9	11·96
Apoplexy	...	...	...	...	2	1	1	1	...	...	...	1	6	·4	33·33
Dysentery	47	55	78	61	46	46	28	69	68	67	90	55	710	45·5	1·51
Diarrhœa	30	40	91	82	54	47	41	78	59	27	38	31	615	39·4	
Hepatitis	1	1	...	3	3	3	5	2	1	3	4	2	28	1·8	14·29
Spleen Disease	5	5	9	2	8	2	7	10	9	6	4	11	78	5·0	8·97
Respiratory Diseases ...	49	53	59	33	49	19	26	25	33	39	49	36	470	30·1	4·26
Phthisis Pulmonalis ...	1	2	1	1	3	4	2	1	2	2	3	3	25	1·6	28·00
Dropsy	...	...	...	1	1	...	...	...	...	...	...	...	2	·1	50·00
Scurvy	2	1	...	1	1	3	...	1	...	...	...	1	10	·6	...
Rheumatism	133	101	92	57	58	55	90	64	67	80	98	109	1,004	64·3	
Venereal Diseases ...	51	58	82	66	72	67	59	53	54	46	61	61	730	46·8	
Eye Diseases	26	10	31	50	46	46	66	67	44	36	31	23	476	30·5	·20
Abscess and Ulcer ...	145	118	127	129	126	157	241	229	156	167	161	154	1,904	121·7	
Wounds and Accidents ...	181	186	196	174	218	190	204	216	206	194	200	184	2,329	149·2	
All other Causes	114	112	172	110	115	143	150	157	110	136	109	93	1,501	96·1	
Dengue	...	...	...	...	...	...	...	179	43	27	13	...	262	16·8	...
	1,071	1,091	1,526	1,233	1,256	1,185	1,535	1,968	1,622	1,715	1,544	1,081	16,827		
	Admitted per 1,000 of the Average Strength in each Month.														
	68·4	65·4	91·8	82·5	83·7	77·8	99·1	127·1	104·7	108·4	98·7	70·9	1077·7		

III.—STATISTICS OF SELECTED STATIONS,—LUCKNOW, 1867—76.

XXXI.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying LUCKNOW in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	1,500	33·6	36·5	70·0	76·8	46·1	40·1	51·6	39·1	41·2	41·2	33·0	26·8	44·6
1868	1,917	17·8	21·3	28·2	35·4	34·0	33·5	31·7	34·4	33·9	37·7	26·9	26·2	30·2
1869	1,707	22·2	25·3	31·1	21·8	24·3	15·4	19·8	30·0	23·6	15·1	19·3	19·5	22·6
1870	1,728	17·0	47·2	50·1	35·7	24·4	19·2	23·4	22·7	31·3	43·0	58·6	45·5	33·3
1871	1,645	34·6	37·0	32·7	42·3	35·5	32·4	35·9	41·8	41·1	30·6	35·6	29·2	36·5
1872	1,984	27·4	27·0	22·8	23·5	27·8	35·9	49·3	63·0	45·7	57·0	70·2	63·4	39·7
1873	1,404	70·2	56·1	60·4	55·3	51·6	42·8	39·6	48·6	52·1	47·5	46·8	49·2	49·1
1874	1,486	39·9	36·4	40·2	30·6	33·6	20·3	22·7	32·5	32·4	38·2	43·2	41·7	35·0
1875	1,488	42·5	42·1	30·7	29·8	28·1	42·8	43·1	41·6	46·3	38·7	34·3	30·4	37·6
1876	1,505	26·3	24·0	30·2	29·6	33·6	28·6	30·3	43·1	40·2	32·0	38·6	21·0	31·2
Ten years, 1867—76 ...	15,614	31·3	34·1	39·3	38·0	33·9	30·5	33·3	38·4	38·3	38·0	38·4	33·8	35·6

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	3·1	387·6	·6	47·2	78·6	3·1	3·8	21·4	...	·6	·6	58·5	69·4	23·9	122·6	211·3	136·6	1679·9
1868	1·0	459·1	...	16·2	31·3	1·0	...	18·8	1·0	...	2·0	50·6	36·5	30·9	132·0	114·8	123·1	1008·3
1869	1·7	391·6	...	28·9	13·6	·6	...	12·4	1·2	...	...	47·0	34·5	28·9	107·5	110·3	68·5	896·7
1870	1·7	589·1	1·2	90·3	78·7	2·3	20·3	28·4	2·3	...	·6	53·2	32·4	42·2	128·5	98·4	96·0	1265·6
1871	3·7	485·7	...	52·9	53·5	·6	6·1	31·0	1·8	...	1·2	77·2	18·8	32·8	128·3	141·3	108·2	1142·9
1872	7·4	559·1	...	46·1	24·0	·9	2·8	46·1	1·8	...	·9	99·6	20·3	39·7	132·9	116·2	323·8	1421·6
1873	3·6	413·8	1·4	59·1	42·7	3·6	6·4	39·9	2·8	·7	·7	158·1	53·4	37·0	119·7	218·9	108·3	1209·2
1874	...	280·6	...	40·4	16·8	·7	10·1	41·1	·7	...	...	52·5	83·4	20·9	113·7	168·2	72·0	901·1
1875	6·0	284·3	...	43·7	22·2	3·4	...	43·7	2·7	...	...	40·3	88·7	33·6	125·6	178·1	69·9	942·2
1876	2·0	459·8	·7	34·6	25·2	2·0	...	30·6	2·0	...	...	29·2	41·9	29·2	107·6	152·1	113·0	1029·9
Ten years, 1867—76 ...	2·8	422·5	·4	45·5	39.4	1·8	5·0	30·1	1·6	·1	·6	64·3	46·8	30·5	121·7	149·2	115·4	1077·7

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A. Cholera.	B. All other Causes.	C. All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	2·52	7·54	10·06	16	4	4	1	2	...	2	1	...	...	1	...	...	...	1
1868	1·04	5·74	6·78	13	2	4	...	...	1	...	1	...	1	...	...	...	3	1
1869	1·70	2·26	3·96	7	3	...	...	...	...	...	...	...	1	...	...	...	2	1
1870	1·74	17·36	19·10	33	3	8	1	11	2	2	4	...	...	...	...	...	1	...
1871	1·22	7·90	9·12	15	2	...	...	5	1	2	3	...	...	...	...	...	1	1
1872	5·53	8·31	13·84	15	6	1	...	...	...	1	3	1	2	...	...	...	1	...
1873	2·14	10·68	12·82	18	3	2	...	1	...	...	3	...	2	...	...	...	6	1
1874	...	6·73	6·73	10	...	2	...	...	...	...	3	...	...	...	...	...	5	...
1875	3·36	2·69	6·05	9	5	...	...	1	...	...	1	...	1	...	...	...	1	...
1876	1·99	3·99	5·98	9	3	4	...	...	...	...	1	...	...	...	...	...	1	...
Ten years, 1867—76 ...	1·99	7·30	9·29	145	31	25	2	20	4	7	20	1	7	1	...	...	22	5

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	2	3	...	...	...	...	...	5
1868	...	...	...	...	...	...	1	1	...	...	...	...	2
1869	...	...	...	...	...	1	...	2	...	...	...	...	3
1870	...	...	...	3	...	...	...	...	...	...	...	...	3
1871	...	...	...	...	...	...	...	...	...	3	3	...	6
1872	...	...	...	1	2	...	2	2	1	...	...	...	8
1873	...	...	...	...	...	...	...	1	...	4	...	...	5
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	1	...	5	1	...	...	1	1	...	...	...	9
1876	...	...	...	...	2	1	...	...	...	...	...	...	3
Ten years, 1867—76 ...	...	1	...	9	5	4	6	7	2	7	3	...	44

III.—STATISTICS OF SELECTED STATIONS,—BAREILLY, 1867—76.

XXXII.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the NATIVE TROOPS occupying BAREILLY during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	8,412	175	20·8	3	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...
February	10,272	267	26·0	4	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	1
March	10,484	228	21·7	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
April	9,260	230	24·8	11	...	1	...	...	2	1	...	...	1	...	1	3	1	1	...	...	...	...	...
May	8,903	232	26·1	6	...	...	1	...	...	2	...	...	...	...	...	2	...	1	...	...	...	...	...
June	8,965	228	25·4	7	...	1	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	2	...
July	9,075	209	23·0	3	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1
August	9,140	219	24·0	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
September	9,178	247	26·9	7	...	...	...	...	1	1	...	...	...	...	...	...	1	2	...	...	1	1	...
October	8,851	249	28·1	10	1	...	...	...	2	...	...	1	2	...	...	...	...	...	...	...	2	2	...
November	8,402	189	22·5	6	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	1	2	...
December	8,333	153	18·4	4	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...
						1	2	1	5	7	2	2	3	...	1	13	3	5	...	...	5	3	9	2
						Died per 1,000 of the Average Strength.																		
For the ten years ...	9,106	219	24·1	64	7·03	·11	·22	1·43			·22	·22	·33	...	·11	1·43	·33	·55	...	...	·55	·33	·98	·22

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	1	...	...	...	...	1	...	1	...	...	3	·3	33·33
Smallpox	3	...	...	3	6	2	1	...	...	...	...	...	15	1·6	13·33
Enteric Fever	...	...	...	...	1	...	...	...	...	...	...	...	1	·1	.....
Fever, Intermittent ...	63	114	133	145	138	116	141	163	239	289	158	73	1,763	193·6	·28
Fevers, Remittent and Continued	3	10	13	3	6	3	3	7	6	14	5	3	76	8·3	9·21
Apoplexy	1	...	...	2	1	1	...	...	...	...	1	...	6	·7	33·33
Dysentery	8	11	14	10	17	14	12	23	25	38	22	22	216	23·7	} 1·45
Diarrhœa	1	23	6	17	13	11	9	15	12	10	7	5	129	14·2	
Hepatitis	1	...	1	...	1	...	1	2	...	...	...	1	7	·8	.....
Spleen Disease	3	2	5	2	...	...	1	1	1	...	4	...	19	2·1	5·26
Respiratory Diseases ...	29	26	22	20	10	17	15	19	16	23	25	14	236	25·9	5·51
Phthisis Pulmonalis ...	1	2	1	2	2	1	...	3	2	...	...	...	14	1·5	35·71
Dropsy	...	...	...	1	...	...	...	...	...	...	...	...	1	·1	.....
Scurvy	3	...	...	...	...	...	1	2	...	...	...	...	6	·7	.....
Rheumatism	24	38	17	19	36	22	25	24	13	15	15	14	262	28·8	}
Venereal Diseases ...	19	27	26	24	29	24	20	23	14	20	28	13	258	28·3	
Eye Diseases	15	9	17	28	39	31	27	28	25	16	15	11	261	28·7	
Abscess and Ulcer ...	48	53	46	67	79	70	86	94	78	68	48	33	770	84·6	·58
Wounds and Accidents ...	86	131	83	105	122	111	94	118	102	103	80	81	1,316	133·5	
All other Causes	55	54	59	65	65	62	38	48	72	74	45	32	669	73·5	}
	363	500	444	513	556	485	474	571	596	671	453	302	5,928		
	Admitted per 1,000 of the Average Strength in each Month.														
	43·2	48·7	42·4	55·4	62·5	54·1	52·2	62·5	64·9	75·8	53·9	36·2	651·0		

III.—STATISTICS OF SELECTED STATIONS,—BAREILLY, 1867—76.

XXXIII.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying BAREILLY in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	883	13·3	28·7	23·3	23·1	30·6	31·2	29·3	27·0	36·2	32·7	12·4	11·2	24·9
1868	961	23·8	20·9	26·2	26·0	25·4	22·2	17·4	19·5	21·9	32·7	28·5	22·4	23·9
1869	939	22·2	20·8	23·0	27·6	24·2	22·4	28·8	32·9	33·9	29·5	31·7	27·1	26·6
1870	916	19·3	21·3	20·7	28·0	31·4	33·9	32·9	30·0	38·5	40·0	27·8	31·8	30·6
1871	828	28·1	19·7	18·0	17·4	22·2	16·8	21·1	18·8	23·8	27·0	30·3	29·7	21·7
1872	895	33·9	46·8	32·1	36·0	39·4	36·3	28·0	25·8	33·1	34·8	31·7	16·6	32·4
1873	918	26·7	32·5	16·9	15·3	17·1	15·4	16·8	19·4	16·1	25·3	13·0	23·0	19·6
1874	929	21·8	12·9	10·1	15·2	18·3	17·7	13·5	13·5	19·2	13·3	11·4	12·7	15·1
1875	982	12·0	13·7	14·4	20·7	19·6	19·9	16·4	17·4	16·8	22·0	14·7	6·4	16·3
1876	856	4·9	42·8	34·5	38·6	33·0	39·3	26·8	33·8	28·9	23·3	28·9	8·7	30·4
Ten years, 1867—76 ...	9,106	20·8	26·0	21·7	24·8	26·1	25·4	23·0	24·0	26·9	28·1	22·5	18·4	24·1

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Disease.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	...	389·6	...	51·0	34·0	...	1·1	30·6	...	...	4·5	71·3	45·3	47·6	128·0	192·5	137·0	1132·5
1868	1·0	178·0	...	10·4	16·7	2·0	4·2	25·0	...	...	...	38·5	33·3	21·8	97·8	125·9	140·5	695·1
1869	...	131·0	...	29·8	6·4	...	3·2	8·5	...	1·1	...	18·1	71·4	27·7	61·8	87·3	53·2	430·5
1870	...	286·0	...	22·9	1·1	1·1	3·3	21·8	1·1	...	...	38·2	40·4	28·4	116·8	126·7	65·5	753·3
1871	...	146·1	...	15·7	1·2	...	...	18·1	3·6	...	...	16·9	13·3	30·2	82·1	103·9	32·6	463·7
1872	1·1	286·1	4·5	14·5	10·1	...	5·6	42·4	1·1	...	...	23·4	8·9	33·5	101·7	178·3	78·2	795·5
1873	...	153·6	...	14·2	1·1	1·1	...	40·3	1·1	...	...	19·6	7·6	35·9	87·2	164·5	57·7	583·9
1874	...	120·5	...	17·2	6·5	...	1·1	16·1	1·1	...	2·1	8·6	10·8	22·6	63·6	109·6	36·6	414·4
1875	1·0	159·2	1·0	44·8	12·2	2·0	...	29·5	4·1	...	...	8·1	19·4	14·3	46·8	95·8	42·8	442·0
1876	...	213·8	1·2	15·2	54·9	1·2	2·3	26·9	3·5	...	...	47·9	31·5	26·9	61·9	164·7	107·4	739·3
Ten years, 1867—76 ...	·3	202·0	·7	23·7	14·2	·8	2·1	25·9	1·5	·1	·7	28·8	28·3	28·7	84·6	133·5	75·1	651·0

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	...	4·53	4·53	4	...	1	...	...	...	...	[illegible]	...	...	...	...	...	1	...
1868	1·04	6·24	7·28	7	1	1	...	1	...	...	1	1	...	...	...	...	1	1
1869	...	4·26	4·26	4	...	1	...	1	...	...	...	...	1	...	...	...	1	...
1870	...	6·55	6·55	6	...	[illegible]	...	...	...	...	...	1	1	...	...	...	1	1
1871	...	8·45	8·45	7	...	[illegible]	...	1	...	...	...	...	[illegible]	...	...	...	...	[illegible]
1872	...	15·64	15·64	14	...	3	2	...	...	1	[illegible]	...	...	...	...	3	[illegible]	1
1873	...	3·27	3·27	3	...	...	...	...	...	...	1	...	...	...	...	[illegible]	...	...
1874	...	3·23	3·23	3	...	1	...	...	...	...	[illegible]	...	...	...	...	...	[illegible]	...
1875	...	8·15	8·15	8	...	1	...	1	...	...	4	...	...	...	...	...	[illegible]	...
1876	...	9·35	9·35	8	...	1	...	1	...	...	1	1	1	...	...	...	[illegible]	...
Ten years, 1867—76 ...	·11	6·92	7·03	64	1	13	2	5	...	1	13	3	5	...	...	5	11	5

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	...	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	...	...	...	1	...	...	1
1869	...	...	...	...	...	...	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	1	...	...	...	...	1
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	1	...	...	...	...	...	...	...	...	...	1
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten years, 1867—76 ...	...	...	1	...	...	...	...	1	...	1	...	...	3

III.—STATISTICS OF SELECTED STATIONS,—MORAR, 1867–76.

XXXIV.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying MORAR during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																		Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	16,723	822	49·2	8	...	...	...	...	1	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...
February	17,423	775	44·5	11	...	...	...	...	2	...	...	...	1	...	...	6	...	...	...	...	...	...	2	...
March	17,395	741	42·7	7	...	...	...	...	...	...	...	...	1	...	...	3	...	1	...	...	1	...	...	1
April	15,290	800	52·6	15	...	1	1	...	5	...	...	1	...	...	...	1	...	4	...	...	...	...	1	1
May	14,084	792	53·9	18	...	5	...	...	2	...	4	1	1	...	...	2	...	...	...	...	...	...	2	1
June	14,772	629	43·4	8	...	2	...	...	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
July	14,931	605	40·5	13	...	...	1	...	1	1	...	1	3	...	...	2	1	1	...	...	...	...	...	2
August	14,953	721	48·2	26	...	11	...	...	1	1	1	3	3	...	...	4	...	2	...	...	...	...	...	...
September	14,988	911	60·8	15	...	5	...	...	2	...	1	1	1	1	...	2	...	...	...	...	1	...	...	1
October	15,541	1,118	71·9	7	...	...	...	...	4	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...
November	15,686	1,017	67·4	19	...	1	...	1	3	1	...	2	1	...	...	4	...	2	1	...	1	...	1	1
December	14,339	796	55·5	8	...	...	...	...	3	2	...	...	...	...	...	1	...	...	3.	...	...	...	1	1
						25	2	1	26	6	10	11	11	1	...	32	1	10	1	1	2	...	7	8
						Died per 1,000 of the Average Strength.																		
For the ten years ...	15,500	812	52·4	155	10·00	1·61	·13		2·13		·65	·71	·71	·06	...	2·07	·06	·65	·06	·06	·13	...	·45	·52

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	1	2	5	2	...	18	8	...	1	...	37	2·4	67·57
Smallpox	3	1	17	11	2	1	1	...	...	...	1	...	37	2·4	5·41
Enteric Fever ...	...	...	...	...	...	...	...	...	...	1	...	...	1	·1	100·00
Fever, Intermittent ...	965	606	904	1,805	1,747	812	832	1,250	1,905	2,860	2,337	1,357	17,670	1140·0	·15
Fevers, Remittent and Continued	6	13	6	9	7	13	2	6	28	36	4	3	133	8·6	4·51
Apoplexy	...	...	...	...	3	25	1	1	1	...	...	...	31	2·0	32·26
Dysentery	33	29	29	65	64	48	92	250	131	97	83	46	967	62·4	1·38
Diarrhœa	29	10	44	42	56	73	82	138	49	51	37	19	630	40·6	
Hepatitis	5	2	3	1	1	2	3	2	3	1	2	4	29	1·9	3·45
Spleen Disease	12	12	9	29	23	15	11	12	13	15	16	14	172	11·1	...
Respiratory Diseases ...	108	114	67	22	36	30	29	24	22	42	60	105	659	42·5	4·86
Phthisis Pulmonalis ...	4	3	5	1	3	4	5	...	1	3	4	4	37	2·4	27·03
Dropsy	...	...	1	...	...	...	...	...	1	...	2	1	5	·3	20·00
Scurvy	4	4	2	5	1	...	1	4	32	6	10	2	71	4·6	1·41
Rheumatism	148	100	84	53	34	62	76	109	70	95	68	60	959	61·9	
Venereal Diseases ...	78	91	82	72	72	58	63	58	70	75	65	64	848	54·7	
Eye Diseases	22	24	32	42	24	28	30	67	46	43	28	24	410	26·4	·13
Abscess and Ulcer ...	149	133	110	83	109	187	104	187	172	143	143	98	1,609	103·9	
Wounds and Accidents ...	247	198	150	112	100	88	163	294	204	224	173	133	2,116	136·5	
All other Causes ...	171	136	133	105	92	146	114	147	135	93	107	93	1,472	95·0	
	1,975	1,476	1,709	2,540	2,370	1,594	1,699	2,567	2,891	3,785	3,341	2,027	27,974		
	Admitted per 1,000 of the Average Strength in each Month.														
	118·1	8·7	99·2	167·0	161·4	108·3	113·8	171·7	192·8	243·5	221·3	102·7	1804·8		

III.—STATISTICS OF SELECTED STATIONS,—MORAR, 1867—76.

XXXV.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying MORAR in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	1,697	50·4	53·4	41·9	53·3	50·9	43·9	31·2	31·6	46·4	64·9	36·6	38·2	45·4
1868	1,742	35·3	39·1	33·4	37·1	42·6	45·9	34·8	37·4	29·3	34·0	51·3	49·8	39·0
1869	1,410	45·9	41·2	43·1	64·5	62·2	69·7	32·7	59·3	71·2	104·5	104·9	102·0	65·2
1870	1,433	67·1	55·4	54·7	74·9	82·9	69·9	65·4	107·2	125·7	126·4	115·3	89·1	83·7
1871	1,519	57·0	47·6	55·7	111·9	107·0	45·3	55·5	73·3	124·3	125·7	110·4	108·3	83·6
1872	1,547	95·5	61·2	47·8	36·3	42·0	38·4	36·8	42·8	59·2	69·0	78·0	54·5	54·9
1873	1,480	47·2	43·9	54·9	52·2	56·3	38·1	36·3	41·4	54·6	65·4	44·0	39·9	47·3
1874	1,522	30·0	32·7	33·4	30·1	37·5	40·8	45·9	46·2	50·9	64·6	63·3	57·0	43·4
1875	1,554	44·7	45·0	39·7	46·1	43·6	37·3	52·7	39·5	33·9	34·5	37·3	34·0	39·9
1876	1,598	30·8	31·3	27·0	22·0	16·4	14·6	14·3	19·4	23·6	44·1	55·6	34·4	28·3
Ten years, 1867—76 ...	15,500	49·2	44·5	42·7	52·6	53·9	43·4	40·5	48·2	60·8	71·9	67·4	55·5	52·4

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcers.	Wounds and Accidents.	All other Causes.	
1867	1·8	1022·4	1·2	35·9	63·6	1·8	1·2	40·1	...	·6	...	58·9	57·7	20·6	84·9	124·9	109·6	1625·2
1868	...	832·4	...	27·6	20·1	...	6·3	27·6	1·1	1·1	1·1	41·3	48·2	23·5	98·8	90·7	109·7	1325·5
1869	16·3	1506·0	19·9	169·0	133·3	...	11·3	29·1	1·4	1·4	32·6	73·1	87·2	25·5	150·2	127·0	116·3	2510·6
1870	·7	2245·5	·7	127·7	104·0	...	7·0	44·0	...	...	8·4	143·8	49·5	51·6	191·0	306·3	195·4	3325·5
1871	...	2011·2	...	52·0	25·0	·7	9·2	61·9	2·7	...	2·0	56·6	53·3	27·0	116·5	192·2	116·5	2726·8
1872	...	1150·9	...	58·8	16·1	2·6	13·6	67·0	1·3	...	1·3	44·6	73·7	33·6	104·7	125·4	97·6	1701·3
1873	...	748·6	...	73·6	12·8	4·1	23·6	39·2	3·4	...	3·4	48·0	84·5	30·4	87·1	165·4	62·2	1329·3
1874	...	871·2	...	48·6	18·4	3·9	15·1	36·8	3·3	...	·6	83·5	61·8	25·6	53·9	85·4	65·7	1373·8
1875	6·4	604·2	...	68·9	14·2	2·6	17·4	52·8	3·9	...	...	32·2	29·0	19·9	130·6	101·0	44·4	1127·4
1876	...	618·9	...	49·3	11·3	3·1	8·1	27·5	6·9	...	...	46·9	16·3	10·0	65·3	70·8	66·3	998·7
Ten years, 1867—76 ...	2·4	1148·7	2·0	62·4	40·6	1·9	11·1	42·5	2·4	·3	4·6	61·9	51·7	26·4	109·0	136·5	97·4	1804·8

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	1·18	7·07	8·25	14	2	5	2	3	...	...	1	...	...	...	...	...	1	1
1868	...	2·87	2·87	5	...	1	...	1	...	...	...	...	1	...	...	...	1	...
1869	12·77	14·18	26·95	38	18	1	2	6	...	...	4	...	...	1	...	...	...	...
1870	...	15·35	15·35	22	...	9	1	4	...	...	5	1	...	...	1	...	...	...
1871	...	5·92	5·92	9	...	4	...	2	...	...	1	...	1	...	...	...	1	...
1872	...	10·34	10·34	16	...	4	...	...	...	...	...	...	1	...	...	...	...	2
1873	...	5·41	5·41	8	...	2	...	1	1	...	...	...	1	...	...	...	...	...
1874	...	9·20	9·20	14	...	4	...	1	1	...	4	...	1	...	...	1	1	1
1875	3·22	9·65	12·87	20	5	1	...	4	...	...	6	...	...	...	...	...	...	1
1876	...	5·63	5·63	9	...	2	...	...	...	...	2	...	3	...	...	...	1	1
Ten years, 1867—76 ...	1·61	8·39	10·00	155	25	33	10	22	1	...	32	1	10	1	1	2	9	8

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	1	1	1	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	...	...	1	4	1	...	16	...	...	1	...	23
1870	...	...	1	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	2	8	...	...	...	10
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten years, 1867—76 ...	...	...	1	2	5	2	...	18	8	...	1	...	37

III.—STATISTICS OF SELECTED STATIONS,—FEROZEPORE, 1867—76.

XXXVI.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying FEROZEPORE during the TEN YEARS from 1867 to 1876, and the Prevalence of the Principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																		Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	6,732	270	40·1	7	...	...	...	1	1	2	...	...	...	...	...	2	...	1	...	...	...	1	...	...
February	6,716	271	40·4	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	6,844	269	39·3	6	...	...	...	...	1	2	...	1	1	...	...	1	...	...	...	...	...	...	...	...
April	6,056	197	32·5	2	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
May	5,582	135	24·2	3	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...
June	5,068	142	25·1	5	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1
July	5,582	159	28·5	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
August	5,496	203	37·0	3	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
September	5,702	284	49·8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October	5,900	370	62·7	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
November	6,035	254	45·3	7	...	...	...	...	2	1	...	...	...	...	...	3	...	...	...	...	...	1	...	...
December	5,450	203	37·2	4	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...
						1	...	...	7	8	...	1	2	...	1	12	...	3	...	...	...	2	4	1
						Died per 1,000 of the Average Strength.																		
For the ten years ...	5,944	239	38·7	42	7·07	·17	...	2·52			...	·17	·34	...	·17	2·02	...	·50	...	...	...	·34	·67	·17

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	1	...	...	...	5	...	...	...	...	...	...	6	1·0	16·67
Smallpox	...	1	2	1	1	...	...	...	...	...	1	...	6	1·0	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fever, Intermittent ...	416	378	296	242	261	306	342	600	870	1,001	521	413	5,046	949·9	·12
Fevers, Remittent and Continued	2	2	2	...	1	...	1	2	1	2	2	...	15	2·5	53·33
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Dysentery	8	6	4	19	16	6	10	17	33	31	35	19	204	34·3	·82
Diarrhœa	13	7	13	21	16	8	8	19	19	9	13	15	161	27·1	
Hepatitis	...	...	...	2	...	...	...	...	1	...	2	...	5	·8	.....
Spleen Disease ...	4	1	7	...	10	6	4	6	7	9	5	5	63	10·6	1·59
Respiratory Diseases ...	31	26	23	14	12	3	7	14	5	15	23	22	195	32·8	6·15
Phthisis Pulmonalis ...	...	1	...	3	1	1	...	2	1	...	1	...	10	1·7	30·00
Dropsy	...	1	...	...	...	...	...	...	...	...	...	...	1	·2	.....
Scurvy	...	...	1	...	...	...	...	...	...	...	1	1	3	·5	.....
Rheumatism	29	41	24	6	17	18	19	15	26	22	24	28	269	44·3	
Venereal Disease ...	8	13	6	8	5	7	9	7	12	6	8	4	93	15·7	
Eye Diseases	11	9	15	25	32	18	26	26	24	21	12	10	229	38·5	·29
Abscess and Ulcer ...	87	69	38	76	52	76	83	91	62	78	89	58	859	143·0	
Wounds and Accidents ...	18	24	17	24	25	15	35	31	27	23	21	26	286	48·1	
All other Causes ...	23	35	45	29	31	21	59	35	34	35	21	18	377	63·4	
	650	615	493	470	480	490	594	864	1,122	1,252	770	619	8,419		
	Admitted per 1,000 of the Average Strength in each Month.														
	96·6	91·6	72·0	77·6	86·0	96·5	106·4	157·2	196·8	212·2	137·4	113·6	1416·4		

III.—STATISTICS OF SELECTED STATIONS,—FEROZEPORE, 1867—76.

XXXVII.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying FEROZEPORE in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	583	9·3	10·7	15·9	13·1	18·3	18·8	16·4	18·1	18·1	48·9	41·3	22·1	20·6
1868	508	13·1	19·5	19·8	17·4	14·1	14·6	20·1	20·3	31·5	34·9	14·2	18·0	19·7
1869	520	23·7	18·3	10·7	9·5	15·0	10·5	13·7	34·6	43·9	56·7	83·9	52·6	26·9
1870	648	44·7	26·4	20·3	18·4	28·5	29·7	28·3	32·0	32·5	36·2	32·6	21·9	29·3
1871	617	13·0	20·0	23·3	47·0	23·0	9·5	19·2	21·9	9·0	17·4	21·6	21·0	21·1
1872	634	14·2	15·2	12·8	22·1	19·1	17·0	30·1	45·0	43·5	30·9	28·1	17·6	23·7
1873	639	27·3	30·7	32·7	41·7	41·1	45·2	38·5	28·4	46·1	66·1	65·0	73·2	45·4
1874	616	93·5	109·1	91·6	38·7	27·8	24·1	27·5	39·6	36·7	34·4	30·9	42·8	50·3
1875	605	71·3	72·6	77·5	53·6	22·5	42·0	45·1	50·9	58·9	82·3	68·8	76·3	61·2
1876	575	81·0	82·7	83·4	65·3	29·5	35·0	41·9	61·0	171·8	204·0	111·8	52·2	87·0
Ten years, 1867—76 ...	5,944	40·1	49·4	39·3	32·5	24·2	25·1	28·5	37·0	49·8	62·7	45·3	37·2	38·7

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	8·6	475·1	...	30·9	3·4	...	3·4	13·7	3·4	...	...	39·5	8·6	37·7	82·4	34·3	111·5	852·5
1868	...	555·9	...	21·6	7·9	...	3·9	11·8	3·9	...	...	25·6	11·8	59·1	141·7	25·6	53·2	872·0
1869	1·9	684·6	...	42·3	28·8	...	...	32·7	...	...	...	17·3	7·7	32·7	98·1	30·8	57·7	1044·6
1870	...	425·9	...	35·5	23·2	1·5	29·1	78·7	1·5	...	...	80·2	32·4	38·6	274·7	17·0	135·8	1165·1
1871	...	169·9	...	16·2	14·6	1·6	3·2	45·4	1·6	...	...	35·7	27·5	43·8	209·1	21·1	71·3	718·9
1872	...	302·8	...	34·7	15·8	3·2	26·8	48·9	3·2	...	...	63·1	28·4	55·2	135·6	3·2	58·3	729·2
1873	...	1201·9	...	29·7	53·2	1·6	4·7	32·9	...	...	1·6	45·4	6·2	25·0	81·4	79·8	46·9	1610·3
1874	...	1297·1	...	24·3	47·1	...	11·4	24·3	1·6	...	1·6	60·1	9·7	26·0	69·8	68·2	29·3	1670·5
1875	...	1383·5	...	69·4	54·5	...	28·1	19·8	1·7	1·7	...	39·7	13·2	33·1	169·3	115·7	33·1	1993·7
1876	...	3123·5	...	38·3	17·4	...	...	10·4	...	...	1·7	34·8	7·0	36·5	99·1	83·5	41·7	3363·9
Ten years, 1867—76 ...	1·0	952·4	...	34·3	27·1	·8	10·6	32·8	1·7	·2	·5	45·3	15·7	38·5	143·0	48·1	61·4	1416·4

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	1·72	6·86	8·58	5	1	2	...	...	...	...	...	...	1	...	...	...	...	1
1868	...	3·94	3·94	2	...	1	...	...	...	...	1	...	1	...	...	...	...	...
1869	...	3·85	3·85	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...
1870	...	18·52	18·52	12	...	3	...	...	...	...	6	...	...	...	...	...	2	1
1871	...	9·72	9·72	6	...	2	...	...	...	...	2	...	...	...	...	...	1	1
1872	...	4·73	4·73	3	...	...	...	...	...	1	1	...	...	...	...	...	1	...
1873	...	4·69	4·69	3	...	...	...	2	...	...	1	1	...	...	...	...	...	...
1874	...	1·62	1·62	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	4·96	4·96	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	8·70	8·70	5	...	3	...	...	...	...	2	...	...	...	...	...	...	...
Ten years, 1867—76 ...	·17	6·90	7·07	42	1	15	...	3	...	1	12	...	3	...	...	...	4	3

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	5	...	...	...	...	...	...	5
1868	...	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	1	...	...	...	...	...	...	...	...	...	...	1
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten years, 1867—76 ...	...	1	...	...	...	5	...	...	...	...	...	...	6

III.—STATISTICS OF SELECTED STATIONS,—MEEAN MEER, 1867—76.

XXXVIII.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying MEEAN MEER during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	12,192	607	49·8	41	...	...	...	...	8	3	...	1	1	...	...	26	...	1	...	...	1	...	1	...
February	13,609	556	40·9	34	...	...	...	...	14	2	2	1	1	...	...	13	...	1	...	...	1	...	1	...
March	14,400	576	40·0	19	...	...	...	...	5	2	...	...	1	...	...	7	...	3	...	...	...	...	1	...
April	13,120	455	34·7	13	...	...	...	...	1	2	...	...	...	...	...	6	...	2	...	...	1	1	...	...
May	12,053	398	33·0	12	...	...	...	...	4	1	1	...	1	...	...	2	...	1	...	...	...	...	1	1
June	12,317	357	29·2	5	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	2	...
July	12,346	307	24·9	7	...	4	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...
August	12,250	317	42·2	16	...	11	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	2
September	11,841	806	68·1	4	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...
October	11,807	1,076	91·1	21	...	...	...	...	3	1	...	3	6	1	1	1	...	2	...	...	2	1	2	1
November	11,361	1,083	93·5	25	...	...	...	...	5	1	1	2	1	...	...	7	1	1	...	...	2	...	3	1
December	11,380	791	69·5	53	...	1	...	...	9	5	...	5	1	1	1	24	...	1	...	...	1	...	3	1
						18	...	...	50	16	4	12	12	3	2	89	1	12	...	...	6	3	16	6
						Died per 1,000 of the Average Strength.																		
For the ten years ...	12,382	628	50·6	250	20·19	1·45	...		5·33		·32	·97	·97	·24	·16	7·19	·08	·97	...	...	·49	·24	1·29	·49

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	1	...	...	11	20	6	...	...	1	39	3·1	46·15
Smallpox	...	...	...	...	...	...	...	...	...	...	1	...	1	·1	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	523	393	418	402	403	437	392	1,464	2,658	3,539	2,390	1,116	14,105	1139·2	·35
Fevers, Remittent and Continued	5	6	22	33	18	10	5	20	19	16	12	11	177	14·3	9·04
Apoplexy	...	2	...	...	3	...	1	...	...	...	1	...	7	·6	57·14
Dysentery	49	35	45	38	55	32	28	61	100	144	149	87	821	66·3	1·83
Diarrhœa	22	18	29	32	40	33	20	43	22	48	60	44	420	33·9	
Hepatitis	4	3	3	2	6	5	...	1	1	1	1	1	28	2·3	10·71
Spleen Diseases	23	12	12	9	13	20	8	8	7	18	25	56	211	17·0	·95
Respiratory Diseases ...	228	146	108	69	45	31	17	26	14	35	74	177	970	78·3	9·18
Phthisis Pulmonalis ...	5	2	7	13	6	4	6	7	1	2	...	2	55	4·4	21·82
Dropsy	2	...	...	1	...	1	1	...	2	...	...	...	7	·6	...
Scurvy	2	...	...	...	2	3	1	2	1	2	1	1	15	1·2	...
Rheumatism	104	130	98	62	50	51	48	45	35	49	64	79	795	64·2	
Venereal Diseases ...	26	21	32	34	21	21	29	24	19	20	13	22	282	22·8	
Eye Diseases	12	11	20	30	40	21	29	42	32	19	29	14	309	25·0	·97
Abscess and Ulcer ...	145	116	108	97	117	119	180	271	158	142	130	110	1,652	133·4	
Wounds and Accidents ...	113	125	110	112	114	85	111	123	85	112	86	114	1,290	104·2	
All other Causes ...	94	92	119	107	102	89	71	63	64	61	73	83	1,018	82·2	
	1,357	1,092	1,141	1,040	1,035	962	976	2,170	3,224	4,298	3,079	1,918	22,202		
	Admitted per 1,000 of the Average Strength in each Month.														
	111·3	89·2	79·2	79·3	85·9	78·7	79·1	177·1	272·3	356·4	270·9	169·5	1793·1		

III.—STATISTICS OF SELECTED STATIONS,—MEEAN MEER, 1867—76.

XXXIX.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying MEEAN MEER in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	1,324	48·3	53·0	42·3	32·2	28·9	30·5	37·1	44·2	84·4	91·3	55·8	49·2	46·8
1868	803	34·4	25·0	22·7	24·0	28·2	24·6	19·0	59·3	83·6	89·0	86·9	67·6	38·6
1869	1,360	45·5	42·1	68·8	59·6	43·8	37·5	23·8	53·3	58·6	207·1	250·6	126·2	87·5
1870	1,371	79·9	64·3	50·1	56·3	77·8	57·6	43·9	41·8	49·7	58·5	105·6	98·9	65·7
1871	1,320	66·9	39·0	35·3	30·7	35·9	30·6	33·9	41·4	45·7	49·4	31·6	41·4	39·4
1872	1,261	28·0	30·7	27·0	20·9	12·0	8·1	13·7	27·6	48·4	80·1	92·9	55·5	37·3
1873	1,225	34·7	28·7	24·6	19·9	24·2	27·8	18·8	51·9	108·3	88·1	96·5	59·0	45·7
1874	1,302	32·4	31·5	30·1	27·4	17·1	20·7	15·4	24·6	21·9	50·4	40·2	65·3	32·3
1875	1,380	51·3	46·7	51·6	36·4	36·2	30·4	19·4	26·6	59·4	83·8	68·1	44·3	46·4
1876	1,127	52·9	45·7	44·3	42·6	26·5	23·1	20·9	55·9	138·1	105·6	108·6	58·4	61·2
Ten years, 1867—76 ...	12,382	49·8	40·9	40·0	34·7	33·0	29·2	24·9	42·2	68·1	91·1	93·5	69·5	56·6

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	9·8	1052·1	...	64·2	38·5	1·5	6·8	21·9	5·3	...	·7	108·8	22·7	23·4	148.8	118·6	92·9	1716·0
1868	...	474·5	...	33·6	23·7	2·7	3·7	22·4	2·5	1·2	...	72·2	44·9	36·1	95·9	155·6	89·7	1062·2
1869	...	2016·5	...	93·0	35·5	1·6	2·4	16·5	2·4	·8	2·4	49·6	30·3	41·0	101·6	90·6	70·1	2509·3
1870	...	862·2	3·6	101·4	48·1	...	37·2	132·0	1·5	...	3·6	60·6	28·5	27·7	155·4	122·6	65·6	1650·0
1871	...	376·5	...	72·7	36·4	1·5	6·1	189·2	3·0	·8	·8	79·6	19·7	33·3	206·8	114·4	84·8	1188·6
1872	19·8	1581·3	·8	70·6	32·5	2·4	4·0	59·8	6·3	·8	·8	62·8	17·4	22·2	155·4	70·1	84·1	2196·1
1873	...	1484·9	...	62·0	26·9	3·3	12·2	82·5	·8	2·5	...	38·4	12·2	15·5	115·9	62·0	47·4	1963·5
1874	...	602·1	...	18·4	10·8	1·5	37·6	119·8	·8	...	...	46·9	19·2	13·8	83·7	105·2	79·9	1129·7
1875	...	1204·3	...	71·0	55·1	5·1	29·0	92·8	12·3	...	·7	60·1	22·5	16·7	152·2	105·8	135·3	1969·9
1876	·9	1715·2	·9	61·2	24·0	2·7	24·8	66·5	8·9	...	·9	55·9	10·6	24·0	90·5	105·6	71·8	2264·4
Ten years, 1867—76 ...	3·1	1153·5	·6	66·3	33·9	2·3	17·0	78·3	4·4	·6	1·2	64·2	22·8	25·0	133·4	104·2	82·3	1793·1

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Disease.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	3·78	6·79	10·57	14	5	1	...	..	...	..	1	1	2	...	..	...	3	1
1868	...	1·25	1·25	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	19·70	19·70	25	...	13	...	6	2	...	2	...	...	...	...	...	1	1
1870	...	53·25	53·25	73	...	30	3	3	...	1	30	...	1	...	...	3	1	1
1871	...	28·79	28·79	38	...	1	...	6	1	...	27	...	1	...	...	...	1	1
1872	9·52	9·52	19·04	24	12	2	...	3	...	...	2	...	1	...	...	...	1	3
1873	...	12·25	12·25	15	...	3	...	2	...	...	2	...	...	...	...	...	2	...
1874	...	14·59	14·59	19	...	4	...	1	...	...	7	...	1	...	...	2	3	1
1875	...	19·57	19·57	27	...	9	...	1	...	...	7	...	4	...	...	1	4	1
1876	·89	11·53	12·42	14	1	2	1	2	...	1	6	...	2	...	...	...	...	...
Ten years, 1867—76 ...	1·45	18·74	20·19	259	18	66	4	24	3	2	89	1	12	...	...	6	16	9

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years, 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867...	...	...	...	1	...	...	11	1	...	...	...	...	13
1868...	...	...	...	...	...	...	...	...	...	...	...	...	...
1869...	...	...	...	...	...	...	...	...	...	...	...	...	...
1870...	...	...	...	...	...	...	...	...	...	...	...	...	...
1871...	...	...	...	...	...	...	...	...	...	...	...	...	...
1872...	...	...	...	...	...	...	...	19	6	...	...	...	25
1873...	...	...	...	...	...	...	...	...	...	...	...	...	...
1874...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875...	...	...	...	...	...	...	...	...	...	...	...	...	...
1876...	...	...	...	...	...	...	...	...	...	...	...	1	1
Ten years, 1867—76 ...	...	...	...	1	...	...	11	20	6	...	...	1	39

III.—STATISTICS OF SELECTED STATIONS,—JHELUM, 1869—76.

XL.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying JHELUM during the EIGHT YEARS from 1869 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	11,529	283	24·5	8	...	...	...	...	...	...	...	1	...	...	...	4	1	1	...	...	...	1	...
February	11,627	278	23·9	8	...	...	...	...	...	...	...	...	...	1	...	4	...	...	...	...	1	2	...
March	13,386	280	20·9	8	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	1	1	1
April	11,566	235	20·3	6	...	...	...	...	...	1	...	...	...	...	...	4	...	...	...	...	...	...	1
May	11,722	280	23·9	5	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...	1	1
June	11,288	251	22·2	7	2	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	2
July	11,614	276	23·8	7	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	6
August	11,814	326	27·6	3	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
September	11,525	443	38·4	3	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...
October	11,302	550	48·7	6	...	...	...	...	1	2	...	1	...	...	...	...	...	...	1	...	...	...	1
November	11,672	567	48·6	7	...	...	...	...	3	2	...	...	...	...	...	1	...	...	...	...	...	1	...
December	12,981	426	32·8	8	...	...	...	...	...	...	...	1	...	...	...	6	...	...	...	...	...	...	1
						5	...	...	6	7	...	4	...	1	...	25	2	3	1	...	2	1	12
						Died per 1,000 of the Average Strength.																	
For the eight years ...	11,536	350	29·6	76	6·42	·42	...	1·10			...	·34	...	·08	...	2·11	·17	·26	·08	...	·17	·08	·49	1·0

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the eight years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	1	...	2	2	5	...	...	...	...	10	·8	50·00
Smallpox	...	...	3	...	...	...	...	...	...	...	...	...	3	·3	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	227	166	198	201	286	239	321	641	1,198	1,904	1,257	503	7,141	603·3	·08
Fevers, Remittent and Continued	3	1	6	11	9	4	4	5	7	29	16	3	98	8·3	7·14
Apoplexy	...	...	...	...	1	...	...	...	...	...	...	...	1	·1	...
Dysentery	26	16	28	70	59	45	53	82	79	86	96	89	729	61·6	·41
Diarrhœa	8	6	14	18	31	20	19	33	32	19	21	16	237	20·0	
Hepatitis	1	...	4	1	3	2	4	1	...	1	...	1	18	1·5	5·56
Spleen Disease	1	1	7	1	2	1	1	...	5	4	10	2	35	3·0	...
Respiratory Diseases ...	51	47	57	37	40	21	32	21	17	25	64	62	474	40·0	5·27
Phthisis Pulmonalis ...	2	...	...	1	...	1	1	...	...	...	1	1	7	·6	42·86
Dropsy	...	...	...	...	...	1	1	...	1	...	...	...	3	·3	33·33
Scurvy	...	...	1	1	3	1	...	1	...	...	...	1	8	·7	...
Rheumatism	44	32	24	29	26	28	29	35	33	34	49	51	404	34·1	
Venereal Diseases ...	31	33	35	22	32	33	35	27	22	23	35	23	351	29·6	
Eye Diseases	12	6	15	28	36	30	39	45	50	42	16	19	338	28·6	·29
Abscess and Ulcer ...	98	66	68	52	60	79	129	126	81	97	104	110	1,070	90·4	
Wounds and Accidents ...	78	67	86	74	90	99	103	79	74	45	84	112	1,003	84·5	
All other Causes ...	78	62	63	77	90	88	87	99	99	57	86	73	959	81·0	
	660	503	609	615	786	694	860	1,200	1,688	2,366	1,839	1,066	12,886		
	Admitted per 1,000 of the Average Strength in each Month.														
	57·2	43·3	45·5	53·2	67·1	61·5	74·0	101·6	146·5	209·3	157·6	82·1	1087		

III.—STATISTICS OF SELECTED STATIONS,—JHELUM,* 1869—76.

XLI.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying JHELUM in each year of the EIGHT YEARS from 1869 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE EIGHT YEARS.

YEAR.	Average Strength for each year and of the period.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1869	1,599	28·4	31·6	26·5	21·1	21·3	20·7	28·3	31·5	36·5	53·0	81·3	59·8	37·5
1870	1,633	36·5	31·1	17·7	17·1	20·9	19·1	20·0	20·5	32·7	46·2	45·9	28·5	28·2
1871	1,235	21·6	21·0	17·0	20·2	14·3	11·7	20·0	24·5	24·0	21·5	28·1	35·0	21·1
1872	1,304	19·3	27·8	27·1	25·7	50·9	34·2	40·5	40·3	65·1	90·5	89·4	42·2	49·1
1873	1,457	26·1	22·5	20·3	14·7	17·0	23·4	18·1	27·8	30·0	25·7	21·2	23·6	22·6
1874	1,502	21·9	19·7	17·4	18·2	16·5	20·8	23·8	19·2	32·4	26·4	22·4	20·3	20·5
1875	1,606	20·8	20·0	22·3	27·6	25·1	18·1	19·0	20·9	32·6	46·3	35·1	26·6	26·2
1876	1,440	19·2	30·2	21·7	20·4	19·8	21·7	20·8	31·8	63·8	70·7	40·7	36·1	32·6
Eight Years, 1869—76 ...	11,836	24·5	23·9	20·9	20·3	23·9	22·2	23·8	27·6	38·4	48·7	48·6	32·8	29·6

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE EIGHT-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																	Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis. Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Disease.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1869	...	937·5	...	63·2	23·1	·6	1·3	31·9	1·8	...	1·3	31·9	35·0	31·3	91·3	81·1	99·4	1444·0
1870	...	672·4	·1	80·2	20·2	1·2	1·2	35·5	1·2	...	1·8	39·2	15·3	28·2	94·9	66·2	96·2	1158·7
1871	...	283·4	·3	53·4	10·5	·8	·8	39·7	...	...	...	42·1	13·0	23·5	105·3	59·9	81·8	715·0
1872	4·6	919·5	...	122·7	55·2	1·5	7·7	69·0	·8	...	...	61·4	19·9	32·2	141·1	162·6	156·4	1754·6
1873	...	314·3	...	41·2	20·6	·7	7·5	99·5	·7	...	...	27·5	30·2	23·3	78·2	77·6	61·8	724·1
1874	·6	272·1	...	45·5	12·8	4·5	2·6	23·0	...	·6	·6	28·2	20·7	25·6	69·8	89·7	51·2	648·5
1875	...	505·0	...	54·8	13·1	1·2	...	57·3	·6	...	·6	25·5	40·5	36·1	90·3	81·6	52·9	949·6
1876	2·1	909·4	...	36·1	7·6	1·4	3·5	38·2	...	1·4	...	32·2	49·3	27·1	60·4	70·2	59·7	1339·6
Eight Years, 1869—76 ...	·8	611·6	·1	61·6	20·0	1·5	3·0	50·0	·6	·3	·7	34·1	29·6	28·6	90·4	84·5	81·3	1088·7

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1869	...	5·63	5·63	9	...	4	...	1	...	...	1	...	1	...	...	...	2	...
1870	...	11·02	11·02	18	...	5	...	1	...	...	7	...	2	...	...	1	...	2
1871	...	3·24	3·24	4	...	...	...	...	...	...	3	1	...	...	...	...	...	...
1872	1·54	4·60	6·14	8	2	1	...	...	...	...	1	...	...	...	...	...	2	2
1873	...	5·49	5·49	8	...	1	...	1	...	...	...	...	...	...	...	...	...	4
1874	·64	5·12	5·76	9	1	...	...	1	1	...	...	...	...	...	...	...	1	3
1875	...	5·60	5·60	9	...	...	...	1	...	...	...	1	...	...	...	...	1	1
1876	1·39	6·25	7·64	11	2	2	...	...	...	...	4	...	...	1	...	1	...	1
Eight Years, 1869—76 ...	·42	6·09	6·42	76	5	13	...	4	1	...	25	2	3	1	...	2	7	13

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE EIGHT YEARS.

YEAR.	Admissions from Cholera in each Month of the Eight Years 1869—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1869	...	...	...	...	...	...	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	1	...	...	2	3	...	...	...	...	6
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	1	...	...	...	...	...	...	1
1875	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	1	...	2	...	...	...	...	3
Eigh Years, 1869—76 ...	...	...	...	1	...	2	2	5	...	...	...	...	10

* This Station was occupied by Native Troops from 1869.

III.—STATISTICS OF SELECTED STATIONS,—PESHAWAR, 1867—76.

XLII.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the NATIVE TROOPS occupying PESHAWAR during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	39,698	1,665	42·6	111	...	...	1	...	13	8	1	10	8	...	3	48	3	2	1	1	5	1	3	3
February	40,025	1,380	34·5	74	...	...	1	...	11	10	...	1	3	...	2	38	...	...	...	...	3	1	1	1
March	39,878	1,605	27·5	45	...	...	...	...	7	5	...	...	3	1	...	15	1	4	...	...	3	2	4	...
April	36,107	858	23·8	33	...	...	...	3	3	6	...	...	1	...	1	8	2	1	...	1	3	...	2	3
May	34,159	870	25·5	36	...	11	...	1	2	5	1	2	1	...	...	6	1	1	...	...	...	1	3	1
June	34,254	996	28·2	31	...	13	...	...	2	4	1	1	2	...	...	1	...	2	...	...	2	...	...	2
July	34,628	1,031	29·8	31	...	1	...	...	2	4	2	2	...	...	1	4	2	2	...	...	2	3	5	1
August	34,683	1,376	39·7	16	...	...	1	...	2	5	1	...	...	...	...	3	...	1	...	...	1	...	2	...
September	34,363	2,453	71·4	126	...	96	...	1	3	5	1	8	...	...	1	4	2	...	...	...	...	...	4	1
October	34,106	4,031	118·2	118	...	63	...	...	17	4	1	9	5	...	...	8	1	1	...	...	...	...	3	4
November	37,108	4,062	109·3	109	...	4	...	1	28	6	1	14	15	...	...	19	1	2	...	1	2	...	6	...
December	37,251	2,569	67·4	112	...	...	...	...	24	6	1	15	15	...	2	23	2	1	1	1	3	2	6	1
						188	3	6	114	68	10	62	53	1	10	187	15	19	2	4	26	11	38	16
						Died per 1,000 of the Average Strength.																		
For the ten years ...	36,310	1,858	51·2	833	22·94	5·18	·08	5·18			·28	1·71	1·46	·03	·28	5·15	·41	·52	·05	·11	·72	·30	1·04	·44

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	25	33	4	3	162	91	6	...	324	8·9	58·02
Smallpox	2	4	1	2	2	1	1	1	...	...	...	...	14	·4	21·43
Enteric Fever	...	...	...	3	1	...	...	...	1	...	3	2	10	·3	60·00
Fever, Intermittent ...	1,790	1,161	987	1,071	1,466	1,786	1,940	3,506	8,071	13,112	9,183	3,907	48,580	1337·9	·23
Fevers, Remittent and Continued	50	32	37	26	100	51	43	34	48	74	56	48	599	16·5	11·35
Apoplexy	1	1	...	2	2	1	3	1	1	2	...	1	15	·4	6·67
Dysentery	227	133	112	148	134	202	211	291	475	495	570	376	3,474	95·7	1·93
Diarrhœa	141	106	96	145	123	202	255	283	305	287	330	223	2,486	68·5	
Hepatitis	11	7	7	7	7	5	7	4	3	4	4	5	65	1·8	1·52
Spleen Diseases	78	31	31	15	24	26	26	25	251	176	196	159	1,038	28·6	·96
Respiratory Diseases ...	404	345	268	152	93	76	80	87	85	99	224	413	2,326	64·1	8·04
Phthisis Pulmonalis ...	6	5	7	5	4	3	8	2	2	4	4	1	51	1·4	37·25
Dropsy	3	...	1	...	...	...	1	...	2	2	3	1	13	·4	15·38
Scurvy	5	3	...	5	4	1	4	5	3	9	11	8	58	1·6	6·90
Rheumatism	245	229	210	168	119	121	138	156	126	132	151	185	1,980	54·5	
Venereal Diseases ...	79	68	61	67	69	68	87	73	82	67	79	64	864	23·8	
Eye Diseases	36	44	42	53	94	108	129	111	95	77	59	28	876	24·1	
Abscess and Ulcer ...	310	208	212	161	228	287	387	435	302	257	264	263	3,314	91·3	·65
Wounds and Accidents ...	298	321	252	231	325	329	335	293	215	284	272	273	3,378	93·0	
All other Causes	329	258	276	264	221	241	296	319	248	281	309	389	3,531	97·2	
	4,015	2,956	2,000	2,520	3,041	3,541	3,955	5,729	11,077	15,503	11,814	6,346	72,997		
	Admitted per 1,000 of the Average Strength in each Month.														
	102·7	73·9	65·2	69·8	89·0	103·4	114·2	165·2	322·4	451·6	317·9	170·4	2010·4		

III.—STATISTICS OF SELECTED STATIONS,—PESHAWAR, 1867—76.

XLIII.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying PESHAWAR in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	4,395	60·2	36·7	28·4	21·2	22·7	27·6	33·6	27·4	73·1	181·4	224·8	103·5	61·2
1868	4,062	50·4	36·4	38·5	31·2	29·8	32·5	33·2	43·2	48·2	63·2	84·3	55·9	44·8
1869	3,380	37·1	25·8	22·9	18·8	28·9	35·6	39·1	76·6	141·7	228·1	165·9	99·3	72·8
1870	3,064	45·8	28·4	25·5	25·9	28·0	31·5	31·9	42·0	124·8	180·6	95·5	82·1	61·9
1871	3,530	54·6	42·0	27·9	19·4	22·8	24·2	23·5	30·5	29·7	45·6	55·2	46·1	35·7
1872	3,555	37·9	28·0	20·6	18·9	17·5	17·3	24·2	25·9	45·9	56·9	52·0	33·3	31·5
1873	3,382	21·8	24·0	20·3	19·6	20·2	25·0	23·7	30·1	62·9	128·5	131·5	78·9	48·8
1874	3,483	37·4	28·2	22·7	26·0	26·9	30·9	33·4	39·7	55·1	98·8	101·2	70·5	48·5
1875	3,397	61·9	56·6	31·3	29·4	28·4	23·6	23·6	33·4	65·4	108·4	89·2	52·0	49·7
1876	3,462	38·4	38·6	35·2	26·8	29·3	33·5	33·6	60·7	70·8	109·1	94·6	55·0	51·4
Ten Years, 1867—76 ...	36,310	42·6	34·5	27·5	23·8	25·5	29·2	29·8	39·7	71·4	118·2	109·3	67·4	51·2

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	14·3	1630·6	·7	104·2	77·4	2·0	10·0	40·0	2·5	...	·9	42·8	20·5	23·6	22·2	80·9	76·0	2300·6
1868	·2	863·4	·2	103·9	77·5	4·9	7·6	47·3	·5	·2	1·5	68·4	23·4	20·9	116·0	93·6	97·0	1528·5
1869	53·5	1931·9	...	115·4	116·9	2·1	28·4	50·9	1·8	·6	2·1	57·1	16·3	24·0	82·2	89·6	107·1	2670·9
1870	...	1667·6	·8	114·3	99·1	·6	140·3	71·2	2·2	1·4	1·1	53·8	26·7	26·5	77·0	72·3	104·5	2390·6
1871	...	670·8	·3	72·8	52·1	·9	31·7	50·9	1·1	·3	1·4	56·1	19·6	27·8	111·6	112·7	102·6	1318·7
1872	12·7	1004·5	...	86·6	59·9	·8	16·6	59·1	1·1	·6	·8	42·7	21·7	27·0	76·5	71·2	96·5	1578·3
1873	...	1389·1	...	80·4	44·9	2·7	8·3	73·9	·6	...	3·3	43·2	26·0	22·5	74·2	72·7	105·3	1947·1
1874	...	1390·2	·3	83·6	43·1	1·7	10·3	68·3	·9	·6	1·4	47·1	31·3	21·5	93·0	104·5	96·2	1904·9
1875	...	1429·8	...	93·3	39·4	1·5	12·1	77·7	1·8	...	1·2	29·7	28·6	15·9	81·8	100·1	94·8	2007·7
1876	9·8	1587·5	1·7	98·2	69·3	·6	22·2	104·6	1·4	...	2·6	104·9	22·5	24·3	94·7	125·4	102·3	2372·9
Ten Years, 1867—76 ...	8·9	1354·7	·4	95·7	68·5	1·8	28·6	64·1	1·4	·4	1·6	54·5	23·8	24·1	91·3	93·0	97·6	2010·4

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	6·14	13·88	20·02	88	27	21	2	15	...	1	9	...	6	...	...	1	5	1
1868	...	13·05	13·05	53	...	15	1	12	1	...	8	3	1	...	1	4	5	3
1869	33·14	24·55	57·69	195	112	30	...	25	...	1	14	3	...	...	...	4	5	1
1870	...	23·74	23·74	87	...	32	2	20	...	1	21	1	1	1	...	2	2	4
1871	...	20·68	20·68	73	...	16	...	11	...	2	26	1	1	...	...	4	5	7
1872	8·16	19·97	28·13	100	29	14	1	15	...	2	21	...	8	...	1	5	5	5
1873	...	22·18	22·18	75	...	20	...	8	...	2	25	3	3	...	...	3	8	3
1874	...	10·62	10·62	37	...	13	1	1	...	...	14	1	1	1	...	...	3	1
1875	...	20·90	20·90	71	...	18	...	5	...	...	37	1	3	...	1	3	2	2
1876	5·78	9·82	15·60	54	20	9	3	3	...	...	12	1	1	...	1	...	1	3
Ten Years, 1867—76 ...	5·18	17·76	22·94	833	188	188	10	115	1	10	187	15	19	2	4	26	41	27

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	25	32	4	...	2	...	...	...	63
1868	...	...	...	...	...	1	...	...	...	...	...	...	1
1869	...	...	...	...	...	...	...	3	158	19	1	...	181
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	...	...	44	1	...	45
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	2	28	4	...	34
Ten Years, 1867—76 ...	...	...	...	...	25	33	4	3	162	91	6	...	324

III.—STATISTICS OF SELECTED STATIONS,—KOHAT, 1867–76.

XLIV.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying KOHAT during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	24,545	1,158	47·2 39·2	60	...	...	...	...	7	10	1	3	...	...	1	32	1	1	...	...	1	...	3	...
February	25,836	1,013	32·9	35	...	...	...	...	...	9	...	1	...	...	...	23	1	...	1	...	...	...	2	...
March	26,618	877	25·0	21	...	...	...	...	...	5	...	3	1	...	...	7	1	...	...	...	...	1	2	...
April	24,778	620	20·4	22	...	1	...	...	3	6	2	...	...	...	...	8	...	1	...	...	...	1	1	...
May	22,094	584	29·8	15	...	...	...	...	3	3	...	...	...	...	...	3	1	1	...	...	...	...	1	...
June	22,114	658	32·7	13	...	...	...	1	4	4	...	2	...	...	...	...	...	...	...	...	...	...	2	...
July	22,022	720	44·6	25	5	...	...	...	3	7	1	...	1	...	...	1	1	...	...	...	...	...	2	3
August	21,964	979	73·1	51	42	...	...	...	3	4	...	...	...	...	...	...	1	...	...	...	1	...	...	...
September	22,580	1,651	90·8	39	40	...	...	...	4	3	1	5	1	...	1	2	...	...	...	...	...	...	1	1
October	21,821	1,981	76·2	163	134	...	...	...	6	9	1	4	...	...	...	1	1	...	...	...	4	...	2	1
November	24,159	1,840	54·6	48	2	...	1	...	11	9	...	2	2	...	2	11	...	2	1	...	1	...	3	3
December	26,779	1,461		53	...	...	1	...	5	7	2	4	2	...	1	25	1	...	...	...	4	...	1	...
						323	2	1	49	76	8	26	7	...	6	113	6	5	2	...	11	1	21	6
						Died per 1,000 of the Average Strength.																		
For the ten years ...	23,776	1,129	47·5	565	23·76	9·38	·08	5·30			·34	1·10	·30	...	·25	4·75	·34	·21	·08	...	·46	·04	·88	25.

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	11	66	59	189	2	...	327	13·8	68·20
Smallpox	...	1	2	1	...	...	2	2	...	1	2	2	13	·5	15·38
Enteric Fever	...	...	...	...	1	...	...	...	...	...	...	...	1	·1	.....
Fever, Intermittent	1,294	818	810	786	962	1,094	1,245	2,741	5,149	5,814	4,134	2,110	26,948	1133·4	·18
Fevers, Remittent and Continued	43	32	23	23	18	11	16	15	12	34	33	37	297	12·5	25·59
Apoplexy	1	...	...	1	2	1	4	...	2	2	...	2	15	·6	53·33
Dysentery	143	69	70	94	131	135	163	334	341	244	239	199	2,162	90·9	84
Diarrhœa	111	77	88	98	105	142	169	262	262	147	139	185	1,785	75·1	
Hepatitis	3	2	7	1	1	2	4	1	5	4	2	7	39	1·7	.....
Spleen Disease	25	30	19	12	13	11	9	12	24	33	49	61	298	12·5	2·01
Respiratory Diseases ...	389	201	168	105	81	49	31	48	43	59	121	349	1,615	67·9	7·00
Phthisis Pulmonalis ...	3	...	5	3	5	3	2	...	1	2	4	...	28	1·2	17·86
Dropsy	1	...	...	...	...	1	...	...	...	...	3	...	5	·2	40·00
Scurvy	2	4	10	6	3	2	5	2	5	2	3	6	50	2·1	.....
Rheumatism	204	172	127	105	65	92	86	87	82	87	155	194	1,456	61·2	
Venereal Diseases ...	58	59	35	40	39	47	43	59	41	36	34	55	538	22·6	
Eye Diseases	11	17	29	48	72	54	41	42	54	44	31	37	480	20·2	
Abscess and Ulcer ...	278	175	158	158	227	206	278	310	245	209	232	293	2,809	118·2	·38
Wounds and Accidents ...	230	204	229	224	211	192	192	202	201	190	210	319	2,644	111·2	
All other Causes	259	209	248	236	269	255	296	239	241	165	207	299	2,884	121·3	
	3,035	2,070	2,029	1,941	2,195	2,230	2,537	4,613	6,758	7,262	5,700	4,155	44,394		
	Admitted per 1,000 of the Average Strength in each Month.														
	123·7	89·1	76·2	78·3	99·3	104·9	115·2	209·9	209·3	332·8	235·9	155·2	1867·3		

III.—STATISTICS OF SELECTED STATIONS,—KOHAT, 1867—76.

XLV.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying KOHAT in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	2,305	41·2	35·5	30·0	21·0	19·2	22·2	29·8	37·1	59·1	85·6	89·1	57·2	43·0
1868	2,424	37·7	27·5	28·1	24·6	25·1	28·9	39·9	43·2	59·1	34·5	32·4	24·0	30·9
1869	2,395	21·7	24·6	29·4	21·5	20·4	25·5	32·8	77·6	176·8	239·3	173·2	93·0	74·3
1870	2,442	73·0	52·6	40·4	35·3	36·5	32·4	36·3	37·8	84·9	101·6	96·7	74·6	58·1
1871	2,386	80·9	55·8	43·1	30·7	32·6	45·5	43·8	49·0	55·7	56·1	66·2	68·6	52·8
1872	2,309	57·6	40·6	42·0	27·1	33·1	36·9	41·2	62·1	90·9	84·0	61·8	54·6	54·6
1873	2,307	43·7	31·4	30·8	19·8	19·5	20·8	20·7	30·6	55·0	79·2	50·3	35·7	36·8
1874	2,389	36·4	32·0	27·3	18·8	22·3	24·5	20·2	27·1	49·0	66·2	50·3	45·6	36·0
1875	2,285	43·0	43·8	33·6	24·9	20·3	23·9	32·9	35·8	73·6	91·5	65·6	53·0	45·5
1876	2,534	36·4	24·8	24·6	25·8	32·2	34·6	29·1	43·8	59·5	79·3	73·5	46·1	42·6
Ten Years, 1867—76 ...	23,776	47·2	39·2	32·9	25·0	26·4	29·8	32·7	44·6	73·1	90·8	76·2	54·6	47·5

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	20·0	1032·6	·9	54·2	68·5	...	8·7	43·8	·4	...	·4	28·2	28·6	20·0	108·9	109·3	86·8	1611·3
1868	...	404·3	·4	69·3	43·7	·4	1·2	23·9	·8	...	1·7	39·2	15·7	16·5	85·0	123·3	92·0	917·4
1869	79·3	1716·9	1·7	74·3	117·3	2·9	12·5	35·9	1·2	·9	2·5	52·3	12·5	19·2	110·2	85·2	128·2	2453·0
1870	...	1506·6	·4	90·5	80·3	1·2	12·7	56·9	1·6	·8	·4	65·9	18·8	23·4	145·4	101·6	139·2	2245·7
1871	...	1043·2	·4	108·1	75·9	·4	15·1	96·8	1·3	...	·4	48·2	20·8	20·8	185·7	155·9	125·3	1913·3
1872	39·4	1277·6	·9	117·8	152·4	3·5	17·8	123·9	1·3	...	3·9	87·9	16·9	16·9	106·5	108·7	152·0	2227·4
1873	...	1030·8	...	68·9	47·2	1·3	15·2	72·0	1·7	...	3·5	91·0	13·0	19·1	117·0	96·2	116·6	1693·5
1874	...	1005·9	...	71·6	54·0	2·5	20·5	83·7	1·3	...	3·3	70·7	21·3	13·4	128·9	125·2	116·0	1718·3
1875	...	1352·3	...	101·6	49·9	1·8	9·2	85·8	1·3	·4	2·2	54·3	38·1	20·6	90·6	97·1	105·4	2013·6
1876	...	1009·1	1·6	146·4	62·7	2·4	12·6	60·0	·8	...	2·7	74·6	31·6	25·7	102·2	108·5	153·9	1884·8
Ten Years, 1867—76 ...	13·8	1146·0	·6	90·9	75·1	1·7	12·5	67·9	1·2	·2	2·1	61·2	22·6	20·2	118·2	111·2	121·8	1867·2

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	12·15	13·01	25·16	58	28	14	1	3	...	...	9	1	...	...	...	...	2	...
1868	...	3·71	3·71	9	...	3	1	1	...	...	2	1	...	...	...	1	...	1
1869	56·78	17·96	74·74	179	136	22	3	7	...	...	4	...	1	1	...	3	2	...
1870	...	16·38	16·38	40	...	19	1	3	...	1	10	1	1	...	...	1	2	1
1871	...	20·96	20·96	50	...	16	...	5	...	1	24	1	...	...	...	1	1	...
1872	25·55	16·03	41·58	96	59	11	1	5	...	...	16	...	...	...	...	2	...	...
1873	...	14·74	14·74	34	...	13	1	1	...	...	10	2	...	...	...	1	5	1
1874	...	9·63	9·63	23	...	1	...	1	...	2	13	1	2	...	...	...	3	...
1875	...	19·26	19·26	44	...	16	...	5	...	2	16	...	1	1	...	1	4	1
1876	...	12·63	12·63	32	...	11	...	5	...	...	9	1	...	...	...	2	1	3
Ten Years, 1867—76 ...	9·38	14·38	23·76	565*	223	126	8	33	...	6	113	8	5	2	...	11	23	7

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS, 1867—76.

YEAR.	Admissions from Cholera in each Month of the Ten Years 1867—76.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	...	11	22	13	...	...	...	46
1868	...	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	...	...	...	...	...	...	...	...	188	2	...	190
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	44	46	1	...	...	91
1873	...	...	...	...	...	...	...	...	...	...	...	...	...
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten Years, 1867—76 ...	...	...	...	...	...	...	11	66	59	189	2	...	327

* Thirteen deaths of men killed in action are excluded.

III.—STATISTICS OF SELECTED STATIONS,—DERA GHAZI KHAN, 1867—76.

XLVI.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY among the NATIVE TROOPS occupying DERA GHAZI KHAN during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths in Hospital.																	Died out of Hospital.
						Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.	
January	17,146	836	48·8	47	...	...	...	...	2	6	1	1	1	...	1	32	1	2	...	...	...	...	...
February	16,314	756	46·3	37	...	...	...	...	...	3	...	...	...	1	...	31	...	...	...	...	1	...	...
March	16,062	612	38·1	12	...	...	...	...	2	...	...	...	...	...	...	9	1	...	...	...	...	...	...
April	14,192	394	27·8	10	...	...	...	...	...	1	...	2	...	...	...	3	...	2	...	...	...	2	...
May	13,251	354	26·7	3	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
June	13,317	363	27·3	6	...	...	...	...	2	2	1	...	1	...	...	...	...	...	...	...	...	...	...
July	12,964	369	28·5	9	...	...	...	...	...	1	2	...	1	...	1	1	...	...	...	...	...	2	1
August	13,335	537	40·3	6	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	1	1	...
September	13,182	867	65·8	10	...	...	...	...	...	4	...	1	...	...	...	1	...	...	...	...	1	...	...
October	13,092	1,083	82·7	11	...	...	...	...	...	2	...	4	...	...	...	...	...	1	...	...	...	2	...
November	14,869	1,103	74·2	24	...	...	...	...	...	6	1	...	...	...	...	10	...	...	2	...	1	1	1
December	15,803	838	53·0	33	...	...	...	...	4	4	...	2	...	...	...	19	...	...	...	...	1	1	2	...
						...	...	...	16	30	5	10	3	1	2	169	2	5	2	...	5	2	13	3
						Died per 1,000 of the Average Strength.																		
For the ten years ...	14,461	678	46·9	208	14·38	...	...	3·18		·34	·69	·21	·07	·14	7·54	·14	·34	·14	...	·34	·14	·90	·21

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	2	1	1	...	...	...	4	·3	...
Smallpox	...	2	...	...	...	...	...	...	...	...	...	1	3	·2	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	643	471	423	431	494	498	424	1,206	2,772	3,640	2,474	1,111	14,587	1008·7	·11
Fevers, Remittent and Continued	43	13	22	14	12	5	2	9	11	15	45	22	213	14·7	14·08
Apoplexy	1	...	...	...	...	3	1	1	2	...	1	1	10	·7	50·00
Dysentery	55	32	33	56	47	41	24	44	165	195	135	66	893	61·8	1·07
Diarrhœa	36	20	24	21	25	21	22	24	36	27	41	24	321	22·2	1·07
Hepatitis	2	3	2	...	...	2	1	...	2	1	...	2	15	1·0	6·67
Spleen Disease	27	8	14	15	9	12	10	6	21	19	35	24	200	13·8	1·00
Respiratory Diseases ...	308	160	166	66	27	25	17	26	16	33	105	121	1,050	72·6	10·38
Phthisis Pulmonalis ...	2	2	3	3	...	...	1	1	3	1	1	2	19	1·3	26·32
Dropsy	1	...	...	...	...	...	...	...	...	2	1	...	4	·3	50·00
Scurvy	3	3	2	3	4	1	4	4	5	5	4	5	43	3·0	...
Rheumatism	108	90	71	57	42	53	46	54	64	59	92	92	828	57·3	
Venereal Diseases ...	23	21	19	12	26	13	22	18	16	25	12	27	234	16·2	
Eye Diseases	16	15	31	36	34	29	28	58	51	36	28	16	378	26·1	
Abscess and Ulcer ...	231	145	155	114	133	107	324	357	179	128	187	179	2,299	159·0	·30
Wounds and Accidents ...	198	168	165	172	139	127	150	189	129	171	152	170	1,930	133·5	
All other Causes ...	168	156	155	112	125	136	144	153	141	91	133	132	1,649	114·0	
	1,865	1,309	1,265	1,112	1,117	1,133	1,222	2,151	3,614	4,451	3,446	1,995	24,680		
	Admitted per 1,000 of the Average Strength in each Month.														
	108·8	80·2	78·8	78·4	84·3	85·1	94·3	161·3	274·2	340·0	231·8	126·2	1706·7		

III.—STATISTICS OF SELECTED STATIONS,—DERA GHAZI KHAN, 1867—76.

XLVII.

GENERAL STATISTICS of SICKNESS and MORTALITY of the NATIVE TROOPS occupying DERA GHAZI KHAN in each year of the TEN YEARS from 1867 to 1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE TEN YEARS.

YEAR.	Average Strength of each year and for the period.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick rate for each year and the period.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	1,009	40·2	28·6	28·2	25·5	26·5	38·7	22·0	25·8	49·7	101·0	140·1	57·8	45·6
1868	1,385	43·4	35·2	30·2	21·8	19·5	24·6	28·0	33·0	34·2	31·2	33·9	29·7	31·9
1869	1,591	24·1	18·3	16·3	18·3	26·7	16·9	22·9	26·3	59·7	117·2	71·1	50·8	38·3
1870	1,679	40·9	39·6	32·3	28·4	31·1	30·2	29·8	31·9	87·9	109·5	101·1	69·8	53·0
1871	1,497	67·7	72·2	50·6	41·1	32·5	37·0	32·9	38·2	48·6	69·6	78·5	58·4	53·4
1872	1,517	70·6	73·7	47·5	36·2	31·6	34·1	46·6	68·1	77·3	85·7	70·3	57·9	59·3
1873	1,592	48·3	54·0	53·4	33·0	28·2	29·6	28·6	37·7	54·1	60·8	60·6	42·5	44·6
1874	1,439	36·0	30·3	31·1	21·5	23·0	21·4	25·8	61·7	118·0	97·2	65·2	49·9	47·6
1875	1,544	63·3	66·2	50·0	31·4	28·1	23·2	23·2	35·3	55·6	66·9	60·6	46·8	47·9
1876	1,217	45·2	43·1	37·4	18·9	17·2	29·8	20·2	31·0	62·0	94·8	94·5	67·4	46·0
Ten Years, 1867—76 ...	14,461	48·8	46·3	38·1	27·8	26·7	27·3	28·5	40·3	65·8	82·7	74·2	53·0	46·9

II.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR, AND OF THE TEN-YEAR PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of each year and of the period.
	Cholera.	Fevers.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Rheumatism.	Venereal Diseases.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	3·0	1096·1	...	62·4	9·9	1·0	11·9	56·5	3·0	...	...	54·5	14·9	29·7	161·5	108·0	105·1	1717·5
1868	...	891·0	·7	31·1	15·2	·7	7·2	56·3	1·4	...	1·4	66·4	13·0	22·4	195·0	152·4	109·0	1363·2
1869	...	1049·7	1·9	23·3	17·6	·6	2·5	20·1	1·3	...	4·4	38·3	23·3	31·4	120·7	113·1	77·3	1525·5
1870	...	1168·6	·6	92·3	22·0	1·2	10·7	63·1	·6	...	5·3	56·0	19·1	27·4	143·5	135·9	89·9	1896·2
1871	...	804·3	1·3	72·8	27·4	1·3	17·4	87·5	·7	...	2·0	68·1	18·0	23·4	182·4	172·3	111·6	1590·5
1872	...	1270·9	...	92·3	33·0	1·3	15·2	65·2	·7	...	1·3	60·0	11·9	24·4	215·6	143·0	130·5	2065·3
1873	·6	816·7	1·3	69·6	24·5	2·5	17·0	91·9	1·3	...	3·8	56·5	17·0	36·4	172·1	154·5	144·4	1640·1
1874	...	1593·0	·7	54·5	20·3	·7	14·7	69·9	·7	1·4	4·9	41·3	16·8	20·3	131·5	114·7	122·3	2267·7
1875	...	873·7	...	65·4	33·0	...	22·7	138·0	2·6	·6	·6	55·7	15·5	25·3	164·5	143·8	151·6	1623·0
1876	...	1047·7	...	50·1	12·3	·8	19·7	68·2	1·7	·8	4·9	80·5	9·9	18·9	96·1	78·1	96·1	1585·8
Ten Years, 1867—76 ...	·3	1023·4	·7	61·8	22·2	1·0	13·8	72·6	1·3	·3	3·0	57·3	16·2	26·1	159·0	133·5	114·2	1706·7

III.—DEATH-RATE OF EACH YEAR AND OF THE PERIOD, AND THE CHIEF CAUSES OF MORTALITY.

YEAR.	Died per 1,000 of Strength.			Total Deaths.	Causes of Deaths.													
	A Cholera.	B All other Causes.	C All Causes.		Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	...	3·96	3·96	4	...	3	...	1	...	...	...	...	...	...	...	...	...	...
1868	...	6·50	6·50	9	...	...	...	1	...	...	6	...	1	...	...	...	1	1
1869	...	6·91	6·91	11	...	2	...	3	...	...	1	1	1	...	...	1	...	...
1870	...	15·49	15·49	26	...	6	...	...	...	1	13	...	1	...	...	1	...	...
1871	...	25·38	25·38	38	...	10	1	...	...	...	20	1	...	...	...	1	...	...
1872	...	13·84	13·84	21	...	6	1	...	...	...	10	...	...	...	...	...	...	...
1873	...	10·68	10·68	17	...	6	1	...	1	...	5	...	...	...	...	1	...	1
1874	...	9·79	9·79	14	...	1	...	...	...	...	...	...	...	1	...	1	...	2
1875	...	34·33	34·33	53	...	8	...	1	...	1	42	...	...	...	...	...	...	...
1876	...	12·33	12·33	15	...	4	...	...	...	...	6	...	2	1	...	...	1	1
Ten Years, 1867—76 ...	...	14·38	14·38	208	...	46	5	13	1	2	109	2	5	2	...	5	13	5

IV.—PREVALENCE OF CHOLERA IN EACH MONTH DURING THE TEN YEARS.

YEAR.	Admissions from Cholera in each Month of the Ten Years.												Total Admissions.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	...	...	...	...	...	...	2	...	1	...	...	...	3
1868	...	...	...	...	...	...	...	...	...	...	...	...	...
1869	...	...	...	...	...	...	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	...	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	...	...	...
1872	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	...	...	1	...	...	...	...	1
1874	...	...	...	...	...	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	...	...
Ten Years, 1867—76 ...	...	...	...	...	...	...	2	1	1	...	...	...	4

IV.—DISTRIBUTION OF THE CHOLERA OF THE NATIVE ARMY, 1867—76.

XLVIII.

TABLE showing the PREVALENCE of CHOLERA in each Month of the Ten-Year Period, and the DISTRIBUTION of the DISEASE by STATIONS and PROVINCES.

STATIONS.	Aggregate Strength, 1867—76.	Number of Admissions in each Month.												Total admitted during the ten years.	Admission-rate per 1,000 of the Aggregate Strength.	Total Deaths.	Death-rate per 1,000 of Strength.
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
Troops marching in Bengal and N.-W. Provinces	...	20	37	3	14	5	3	...	...	...	...	...	7	89	...	58	...
Loshai Field Force (1871-72)	...	2	4	97	2	...	...	...	...	...	...	6	17	128	...	102	...
Eastern Frontier Outposts (1871)	...	...	...	...	...	...	...	1	...	...	...	1	...	2	...	1	...
Fort William	...	6,218	2	5	2	6	2	1	1	...	1	1	3	4	28	4·5	20	3·22
Alipore	...	8,878	1	2	14	26	5	5	7	1	1	5	3	2	72	8·1	31	3·49
Dum-Dum	...	3,034	1	2	10	4	3	...	2	...	1	1	2	10	36	11·9	21	6·89
Barrackpore	...	8,470	3	1	6	6	...	1	3	1	2	4	1	1	29	3·4	22	2·60
Berhampore	...	1,302	...	...	...	...	1	1	...	...	...	...	...	...	2	1·5	1	·77
Dacca	...	2,974	5	3	6	5	6	4	1	1	...	1	4	6	42	14·1	23	7·73
Cachar and Outposts	...	5,064	1	1	10	8	...	...	...	...	...	1	...	...	21	4·1	13	2·57
Sylhet (1871—74)	...	409	...	...	...	...	...	3	...	...	...	...	...	...	3	7·3	1	2·44
Shillong and Outposts	...	7,394	6	...	5	6	4	13	6	1	...	1	1	1	44	6·0	12	1·62
Gauhati	...	4,588	...	...	20	4	27	3	4	1	...	...	...	1	60	13·1	42	9·15
Tezpur	...	2,372	...	...	...	2	10	3	3	1	...	...	...	1	20	8·4	7	2·95
Nowgong	...	800	...	...	...	10	12	1	...	1	...	1	...	...	25	31·2	13	16·25
Dibrugarh	...	7,853	1	...	1	9	7	6	4	2	2	5	1	2	40	5·1	18	2·29
Baxa	...	6,174*	...	...	...	...	...	1	...	...	1	...	...	...	2	·3	...	...
Jalpaiguri (1867—73 and 1875-76)	...	3,893	...	...	...	1	1	1	...	3	1	...	...	...	7	1·8	3	·77
Bhagalpur	...	4,016	...	...	...	1	1	...	...	1	1	...	...	...	4	1·0	3	·75
Nya Doomka (1875-76)	...	447	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore	...	5,267	...	6	3	1	6	6	5	9	2	2	...	...	40	7·6	20	3·79
Segowlie	...	2,624	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Benares	...	5,042	...	1	4	1	3	...	1	1	...	...	...	1	12	2·4	7	1·39
Chunar (1869—76)	...	557	...	...	...	1	...	2	...	2	...	...	...	...	5	9·0	2	3·59
Gorakhpur	...	6,637	...	...	...	2	...	...	...	...	...	...	...	...	2	·3	1	·15
Fyzabad	...	7,063	...	...	...	2	...	1	...	...	...	...	...	...	3	·4	2	·28
Lucknow	...	15,614	...	1	...	9	5	4	6	7	2	7	3	..	44	2·8	31	1·99
Sitapur	...	3,104	...	...	...	3	...	...	...	2	1	...	...	...	6	1·9	4	1·29
Futehgarh	...	1,616	...	...	1	...	...	...	...	...	...	...	...	...	1	·6	...	...
Cawnpore	...	8,456	...	...	1	...	...	2	...	3	...	1	...	...	7	·8	5	·59
Allahabad	...	8,757	...	1	...	2	13	2	5	18	4	1	3	1	50	5·7	28	3·20
Banda (1867-68)	...	654	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nagode	...	2,151	...	...	...	...	...	1	...	...	...	...	...	...	1	·5	1	·46
Shahjahanpore	...	2,511	...	...	...	2	1	...	1	8	...	...	...	...	12	4·8	6	2·39
Bareilly	...	9,106	...	...	1	...	...	...	...	...	...	1	...	...	3	·3	1	·11
Moradabad	...	4,060	...	...	1	4	2	...	...	...	...	...	...	...	7	1·7	5	1·23
Almora	...	5,990	...	...	...	...	...	4	2	1	1	1	...	...	9	1·5	3	·50
Road-making Detachments at Ranikhet and Chakrata (1868—71 and 1873)	...	2,586	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dehra Dun	...	5,272	...	...	...	...	4	1	1	8	...	2	1	...	17	3·2	14	2·65
Roorkee	...	5,471	...	...	...	2	...	...	...	...	4	...	...	...	6	1·1	3	·55
Meerut	...	8,863	...	...	1	1	1	...	...	1	4	...	...	1	9	1·0	5	·56
Aligarh (1867—69)	...	897	...	...	...	1	...	...	...	...	...	...	...	...	1	1·1	1	1·11
Delhi	...	6,563	...	...	...	2	3	1	...	1	1	...	...	...	8	1·2	4	·61
Agra	...	9,259	...	...	...	...	1	7	3	5	2	...	1	...	19	2·1	10	1·08
Morar	...	15,590	...	...	1	2	5	2	...	18	8	...	1	...	37	2·4	25	1·61
Jhansie	...	6,550	...	...	...	...	...	...	1	1	...	...	...	...	2	·3	2	·31
Sipri, Ulwar, Nawa, &c. (1868—76)	...	1,605	...	...	...	...	...	...	...	3	...	...	...	...	3	1·9	2	1·25
Nowgong	...	3,077	...	...	...	1	...	...	...	4	1	...	...	...	6	2·0	1	·32
Lalitpur (1869—76)	...	580	...	...	...	...	...	...	...	...	...	1	...	...	1	1·7	1	1·72
Saugor (1867-68)	...	1,816	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore (1867-68)	...	1,397	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Augur (1868)	...	243	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erinpoora (1867)	...	78	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deoli	...	2,131	...	...	...	...	...	...	6	...	...	...	...	...	6	2·8	3	1·41
Umballa	...	8,614	...	...	...	...	...	6	...	...	2	1	...	...	9	1·0	3	·35
Simla	...	1,002	...	...	...	...	...	...	4	...	...	...	...	...	4	4·0	2	2·00
Phillour (1869—76)	...	326	...	...	...	...	...	...	...	...	1	...	...	...	1	3·1	...	...
Ludhiana	...	965	...	...	...	1	1	...	...	...	...	...	...	...	2	2·1	1	1·04
Jullundur	...	5,281	...	...	...	3	...	...	...	2	...	...	...	...	5	·9	2	·38
Ferozepore	...	5,944	...	1	...	...	...	5	...	...	...	...	...	...	6	1·0	1	·17
Mooltan	...	9,975	...	...	...	...	...	...	3	...	...	...	...	...	3	·3	2	·20
Sialkot (1867 and from 1869 to 1876)	...	8,013	...	...	...	...	...	1	...	1	...	...	...	...	2	·3	1	·13
Dharmsala	...	5,494	...	...	...	...	3	...	48	...	1	...	1	...	53	9·7	22	4·00
Bakloh	...	5,166	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar	...	1,959	...	...	...	...	...	...	...	...	4	...	...	...	4	2·1	3	1·54
Meean Meer	...	12,392	...	...	...	1	...	...	11	20	6	...	...	1	39	3·1	18	1·45
Jhelum	...	11,806	...	...	...	1	...	2	2	5	...	...	...	...	10	·8	5	·42
Rawalpindi	...	14,265	...	...	...	1	...	2	1	3	1	...	...	...	8	·6	3	·21
Talegaon (1869—76)	...	4,333	...	...	...	...	...	...	...	1	...	...	...	...	1	·2	...	...
Attock	...	1,600	...	...	...	...	...	2	1	...	...	...	...	...	3	1·9	2	1·25
Hazara (1870—72)	...	1,033	...	...	...	...	...	...	1	...	...	...	...	...	1	1·0	1	·97
Murree (1869—76)	...	436	...	...	...	...	...	...	1	...	...	...	...	...	1	2·3	1	2·29
Nowshera (1869—76)	...	6,437	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat (1872—76)	...	567	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peshawar and Outposts	...	36,310	...	...	...	...	25	33	4	3	162	91	6	...	324	8·9	188	5·18
Troops marching in the Punjab	...	...	...	1	...	1	...	...	...	...	1	1	...	...	4	...	3	...
BENGAL PRESIDENCY		395,981	42	66	187	148	157	126	143	141	218	130	87	56	1,451	3·7	836	2·12
CENTRAL INDIA FORCE.																		
Augur, Goonah and outposts		6,172	...	1	...	...	4	5	...	3	...	...	...	...	13	2·1	11	1·78
Sirdarpore	...	3,936	...	...	3	2	1	1	2	1	3	...	...	...	13	3·3	8	2·03
Kherwarah	...	5,567	...	...	...	...	...	7	6	1	...	...	1	...	15	2·7	6	1·08
Erinpoora	...	7,505	...	...	...	...	...	1	4	...	...	...	...	...	5	·6	4	·59
Deoli	...	7,498	...	...	...	...	...	15	24	2	...	...	...	...	41	5·5	8	1·07
Sehore* (1867 and from 1869 to 1876)	...	7,310	...	...	...	2	2	3	8	...	...	...	7	...	22	3·0	18	2·45
Ajmere (1872—76)	...	3,068	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		41,517	...	1	3	4	7	32	44	7	3	...	8	...	109	2·6	55	1·32
PUNJAB FRONTIER FORCE.																		
Murdan	...	8,374	...	...	...	1	...	...	2	1	1	...	2	...	7	·8	3	·36
Abbottabad	...	14,591	...	...	...	...	...	3	9	15	1	...	...	...	28	2·0	6	·42
Kohat	...	23,776	...	...	...	...	...	...	11	66	59	180	2	...	317	13·8	223	9·38
Edwardesabad	...	16,050	...	...	...	...	1	...	...	1	...	31	6	...	39	2·4	26	1·62
Dera Ismail Khan	...	16,968	...	...	...	...	1	...	...	1	1	...	...	...	3	·2	3	·18
Dera Ghazi Khan	...	14,461	...	...	...	...	...	...	2	1	1	...	...	...	4	·3	...	...
Rajanpore	...	5,532	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops marching	...	...	...	...	...	29	...	...	...	2	...	...	...	...	31	...	12	...
		100,144	...	...	...	30	2	3	24	87	63	220	10	...	430	4·4	273	2·73

* Weekly returns of the Bhopal Battalion for 1868 were not received, and the Strength for that year is not included.

V.—DEATHS OF THE NATIVE ARMY, 1867—76, DETAILED BY STATIONS.

XLIX.

BLE showing the AGGREGATE MORTALITY in each STATION, the Causes of Deaths, and the Ratio of Deaths to Strength during the Ten-year Period, 1867—76.

STATIONS.	Aggregate Strength of the ten years	Causes of Deaths in Regimental Hospitals.																		Died out of Hospital.	Total Deaths. A. Of men present with their Regiments.	Total Deaths. B. Of men absent from their Regiments.	Died per 1,000 of Strength. A. With their Regiments. a. Cholera.	A. With their Regiments. b. All other Causes.	A. With their Regiments. c. All Causes.	Died per 1,000 of Strength. B. All Deaths, Absent and Present.
		Cholera.	Smallpox.	Enteric Fever.	Fever, Intermittent.	Fevers, Remittent and Continued.	Apoplexy.	Dysentery.	Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.							
ps marching in Bengal and N.-W. rovinces.	...	58	1	...	25	11	1	21	22	3	...	44	1	3	...	...	6	6	9	11	222	...	...	...	...	...
ai Field Force (1871–72)	...	102	...	...	1	2	1	12	4	1	...	3	...	...	...	...	...	2	2	11	141	...	...	...	...	...
k Expedition (1875)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...
William	6,218	20	...	1	7	6	3	10	11	1	5	13	1	9	...	8	8	1	13	2	119	...	3·22	15·92	19·14	...
ore	8,878	31	...	4	14	14	3	31	20	1	8	15	...	4	...	7	5	1	5	4	167	...	3·49	15·32	18·81	...
Dum	3,048	21	...	...	6	5	1	19	4	1	2	5	...	3	...	...	2	1	13	1	75	...	6·89	17·72	24·61	...
ackpore	8,470	22	...	1	27	17	2	23	16	...	19	13	1	10	1	11	17	3	7	2	192	...	2·00	20·67	22·67	...
ampore	1,302	1	...	...	6	2	3	2	1	...	...	4	...	1	...	...	...	1	2	...	23	...	·77	16·90	17·67	...
a	2,974	23	...	...	2	1	2	7	2	1	2	6	1	1	1	...	1	...	3	1	54	...	7·73	10·43	18·16	...
ar and outposts	5,064	13	...	...	4	15	1	11	9	...	2	8	2	6	2	2	4	...	8	12	99	...	2·57	16·98	19·55	...
t (1871–74) and Chittagong (1873)	865	1	...	...	1	1	...	1	...	...	...	1	...	1	...	...	...	...	1	1	8	...	...	...	...	...
ong and outposts	7,304	12	1	7	1	15	1	14	9	4	3	12	4	12	1	...	2	...	12	4	114	...	1·62	13·80	15·42	...
ati ...	4,588	42	9	3	8	8	1	10	8	2	2	16	1	13	1	...	13	1	6	5	149	...	9·15	23·33	32·48	...
ur ...	2,372	7	1	...	4	2	1	4	4	...	...	2	1	2	1	...	3	...	2	1	35	...	2·95	11·81	14·76	...
gong	800	13	1	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	2	2	19	...	16·25	7·50	23·75	...
igarh	7,853	18	3	...	8	6	1	11	4	2	1	9	4	12	1	...	2	5	7	20	118*	...	2·29	12·23	14·52	...
...	6,179	...	5	...	18	12	...	13	31	1	1	18	7	5	3	15	4	...	18	6	157	...	...	25·41	25·41	...
iguri (1867–73 and 1875-76)	3,803	3	...	...	12	4	...	6	6	...	5	4	...	...	...	3	8	1	9	1	62	...	·77	15·16	15·93	...
alpur	4,016	3	...	...	4	3	1	1	1	...	5	4	...	3	...	...	...	...	4	1	30	...	·75	6·72	7·47	...
Doomka (1875-76)	447	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	4·47	4·47	...
and Bufla Field Force (1874-75)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	...	...	...
rm Frontier outposts in 1871	362	1	...	...	...	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...	4	...	...	...	...	...
Total	74,585	231	29	16	122	114	20	157	127	13	55	132	23	83	12	46	69	14	109	61	1,427	...	3·10	16·03	19·13	...
pore	5,267	20	2	...	3	3	1	2	2	2	1	...	...	2	1	...	2	3	3	3	52	...	3·79	6·08	9·87	...
ilie	2,624	...	...	...	2	...	...	1	1	...	...	3	...	...	...	...	...	1	3	...	11	...	...	4·19	4·19	...
ers	5,042	7	3	1	...	9	...	6	1	1	2	2	3	13	...	...	2	...	1	3	54	...	1·39	9·32	10·71	...
ar (1869—76)	557	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3	...	3·59	1·80	5·39	...
lhpur	6,637	1	1	...	10	6	3	5	1	...	...	5	...	6	...	...	1	...	6	1	48	...	·15	7·08	7·23	...
lad	7,053	2	1	...	5	4	...	9	3	3	2	6	...	7	1	...	2	...	5	3	53	...	·28	7·22	7·50	...
now	15,614	31	9	...	14	11	2	16	4	4	7	20	1	7	1	...	...	2	13	3	145	...	1·99	7·30	9·29	...
ur	3,104	4	...	...	3	...	...	...	1	1	...	2	1	...	...	...	...	2	2	1	17	...	1·29	4·19	5·48	...
igarh	1,636	...	...	...	...	...	...	1	1	...	2	3	...	1	...	...	...	...	1	2	11	...	...	6·68	6·68	...
pore	8,456	5	5	1	2	4	1	3	1	1	...	17	1	7	2	...	...	3	7	3	63	...	·59	6·86	7·45	...
abad	8,757	28	2	...	9	5	5	8	5	1	2	16	1	3	1	...	3	2	6	1	98	...	3·20	7·99	11·19	...
a (1867-68)	664	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	3	...	...	4·52	4·52	...
de	2,151	1	1	...	3	2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	9	...	·46	3·72	4·18	...
Total	67,678	101	24	2	51	45	12	53	20	13	18	78	7	46	6	...	10	13	48	20	567	...	1·49	6·89	8·38	...
jahanpur	2,511	6	1	...	1	4	...	2	3	...	...	13	3	5	...	...	...	1	2	1	18	...	2·39	4·78	7·17	...
lly	9,306	1	2	1	5	7	...	2	3	...	1	13	3	5	...	...	5	3	9	2	64	...	·11	6·92	7·03	...
dabad	4 060	5	2	...	4	3	1	4	3	1	...	4	1	1	1	...	3	...	1	...	34	...	1·23	7·14	8·37	...
ra	5,390	3	2	...	4	4	...	5	...	1	2	13	1	10	...	1	...	...	4	2	52	...	·59	8·18	8·68	...
-making Detachments at Randhot l Chakrata (1868—71 and 1873).	2,586	...	...	...	...	9	...	7	...	1	...	13	2	1	...	...	3	3	5	44	...	...	17·28	17·28	...	...
a Dun	5,272	14	...	...	7	3	...	1	3	7	6	6	2	26	2	...	1	3	13	1	95	...	2·65	15·37	18·02	...
kee	5,471	3	1	...	1	6	...	1	3	...	1	8	4	4	...	...	4	1	6	1	44	...	·55	7·49	8·04	...
ut	8,853	5	3	...	18	16	4	11	4	3	...	23	2	8	...	...	10	...	5	...	112	...	·56	12·08	12·64	...
rh (1867—69)	897	1	...	...	...	1	...	2	...	...	...	2	2	1	1	...	...	...	1	...	11	...	1·11	11·15	12·26	...
a	6,563	4	2	...	23	15	3	9	1	3	18	...	2	2	...	...	9	...	4	2	100	...	·61	14·62	15·23	...
Total	51,281	42	13	1	63	68	10	36	25	14	13	100	17	60	6	1	32	11	48	14	574	...	·82	10·37	11·19	...
... ...	9,259	10	4	1	20	16	5	1	6	2	3	20	...	8	1	...	7	2	9	3	118	...	1·08	11·05	12·74	...
r	15,560	25	2	1	26	6	10	11	11	1	...	32	1	10	1	1	2	...	7	8	155	...	1·61	8·39	10·00	...
si	6,550	2	2	...	8	4	...	5	3	...	1	13	...	1	1	...	3	1	7	4	55	...	·31	8·08	8·39	...
, Ulwar, Nawa, &c., (1868—76)	1,695	2	...	...	1	2	1	1	1	...	...	1	...	...	...	...	2	...	...	1	12	...	1·25	6·23	7·48	...
gong	3,677	1	...	...	2	2	...	...	3	1	2	1	...	2	...	...	...	...	2	...	16	...	·32	4·88	5·20	...
pur (1869—76) ...	580	1	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	4	...	1·72	5·18	6·90	...
or (1867-68) ...	1,816	...	...	...	6	...	1	1	6	...	...	...	...	...	...	...	2	...	2	1	19	...	...	10·46	10·46	...
ulpore (1867-68) ...	1,397	...	...	...	1	...	...	...	1	...	...	...	...	1	...	...	...	1	...	...	4	...	...	2·86	2·86	...
ar (1868) ...	243	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	4·12	4·12	...
poora (1867) ...	78	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	12·82	12·82	...
... ...	2,131	3	...	...	2	3	...	4	2	1	...	3	...	1	...	1	...	...	1	1	21	...	1·41	8·44	9·85	...
Total	42,236	44	8	2	67	34	17	25	33	5	6	70	1	23	3	2	16	5	27	18	406	...	1·04	8·57	9·61	...
alla	8,614	3	...	...	15	7	...	6	3	1	...	15	...	2	2	...	4	...	7	1	66	...	·35	7·31	7·66	...
a	1,002	2	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	1	...	6	...	2·00	3·99	5·99	...
our (1869—76) ...	326	...	...	...	3	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	5	...	...	15·34	15·34	...
isana	995	1	...	...	1	3	...	4	...	...	...	1	...	2	...	...	...	...	...	...	12	...	1·01	11·10	12·11	...
ndur	5,281	2	...	...	13	11	...	8	4	...	2	8	...	5	1	...	7	2	5	3	71	...	·38	13·06	13·44	...
epore	5,944	1	...	...	7	8	...	4	2	...	1	12	...	3	...	...	...	2	4	1	42	...	·17	6·90	7·07	...
tan	9,975	2	...	...	10	11	1	3	1	1	...	12	1	3	...	...	1	6	10	4	66	...	·20	9·42	9·62	...
ot (1867, and from 1869—76)	8,013	1	...	...	3	7	...	8	2	1	...	15	2	4	1	...	...	1	7	2	54	...	·13	6·61	6·74	...
rozala	5,494	22	7	...	7	9	...	5	8	2	...	18	...	14	1	3	3	...	9	2	110	...	4·00	16·02	20·02	...
oh	5,166	...	...	1	2	3	2	1	1	...	...	7	3	5	...	...	3	1	5	3	37	...	...	7·16	7·16	...
ttar	1,950	3	...	...	...	6	...	3	1	...	...	9	...	...	...	...	1	1	2	2	30	...	1·54	13·84	15·38	...
n Meer	12,382	18	...	...	30	16	4	12	12	3	2	89	1	12	...	...	6	3	16	6	219	...	1·45	16·74	20·19	...
um	11,836	5	...	...	6	7	...	4	...	1	...	25	2	3	1	...	2	1	7	12	75	...	·42	6·00	6·42	...
lpindi	14,265	3	...	...	27	10	2	6	15	1	2	53	2	8	...	1	12	1	19	6	167	...	·21	11·59	11·71	...
gnon	4,33	...	...	...	3	1	1	...	...	...	...	10	...	2	...	...	1	...	2	2	22	...	...	5·07	5·07	...
k	1,600	2	...	...	1	1	...	4	1	...	...	4	1	...	2	...	...	...	1	2	19	...	1·25	10·62	11·87	...
ara (1870—72)	1,033	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	4	...	·97	2·90	3·87	...
ree (1869—76)	436	1	...	...	...	1	...	...	1	...	...	1	...	...	...	...	1	...	...	...	5	...	2·29	9·18	11·47	...
shera (1869—76)	6,437	...	...	...	18	5	1	5	4	...	...	28	...	4	...	...	...	1	4	3	73	...	...	11·34	11·34	...
at (1872—76)	567	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1·76	1·76	...
awar and outposts ...	36,310	188	3	6	114	68	10	62	53	1	10	187	15	19	2	4	26	11	38	16	833	...	5·18	17·76	22·94	...
ps marching in the Punjab ...	...	3	2	...	22	10	3	8	5	1	1	60	3	3	...	...	5	1	6	1	134	...	...	...	...	...
Force employed on the Frontier in 1868	...	...	...	...	3	...	...	...	1	...	...	1	1	1	...	...	...	1	4	3	15	...	...	...	...	...
Total	149,410	258	13	7	306	184	24	142	116	12	18	588	31	90	10	8	72	32	149	69	2,128	...	1·73	12·51	14·24	...
al Presidency	395,081	836	79	28	634	458	85	495	347	61	110	1,015	80	305	37	57	205	83	392	209	5,467	2,282	2·12	11·72	13·84	17·25
al India Force...	41,517	55	2	...	58	44	4	28	18	8	1	109	4	12	4	...	12	8	76	18	461	156	1·32	9·78	11·10	11·56
ab Frontier Force	109,144	273	17	6	123	212	41	91	27	11	18	482	21	59	7	5	29	23	114	40	1,530	656	2·73	13·15	15·88	18·37

* Nine of these were killed by the Nagas while escorting a Survey Party.

SECTION III.

STATISTICS OF THE PRISONERS OF BENGAL FOR EIGHTEEN YEARS FROM 1859 TO 1876; AND EPIDEMIC FEVERS AS AFFECTING THE JAIL POPULATION.

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STATISTICS OF THE PRISONERS OF BENGAL FOR EIGHTEEN YEARS FROM 1859 TO 1876; AND EPIDEMIC FEVERS AS AFFECTING THE JAIL POPULATION.

CHAPTER I.

THE GENERAL STATISTICS OF THE JAIL POPULATION OF THE BENGAL PRESIDENCY FROM 1859 TO 1876.

In this report the statistics of the various Provinces are arranged according to Administrations.

The statistics of the Jails of Bengal, published annually and appended to the report of the Sanitary Commissioner, are assimilated as regards geographical distribution to the provincial areas into which it has been found convenient to sub-divide the Bengal Presidency when illustrating the effects of locality in the case of the European and Native Armies.

The Secretary of State for India has suggested that it might be convenient that our compilations should exhibit also the statistics of the jail population as related to Provincial Administration; and I have taken this opportunity of re-arranging the results of Administrations in a general manner for the period of 18 years, and for a ten-year period ending with 1876 in a form parallel with that given for the Native Army in the preceding section, and for the European Army of Bengal in the Statistical Standard of 1860—69, showing the monthly as well as the annual figures and ratios. In speaking of provincial sickness and mortality in this report, it will therefore be understood that I am not quoting the aggregate of the statistics as exhibited provincially year by year, but such as would approximately result from the aggregation of the tabular statements published annually by the provincial Inspectors General of Jails. The strengths here given will, as the rule, be less to a trifling extent than those of the local Inspectors General, who take cognisance of every prisoner, while in some cases our statistics omit the smaller lock-ups. This omission is not to be regretted, since the statistics of sickness are too trivial and too inaccurate for incorporation with those for which a medical officer is directly responsible.

The jail statistics a record of sanitary progress.

As a record of sanitary progress, the results to be here shown are very gratifying. Up to 1866 the death-rate per 1,000 never was in any year below 58, and in 1860 it actually reached 111. From 1867 to 1876 the minimum was 30, and the maximum 43. Dividing the 18 years into periods, each of 9 years, in the first half 73·45 died annually on the average; in the latter half of the period the death-rate averaged 38·67. The following are the Annual Death-rates per 1,000 for the prisoners of Bengal taken as a body :—

1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	Average of 9 years.
83	111	97	67	86	70	58	62	38	73

1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	Average of 9 years.
30	43	42	35	44	43	40	34	38	39

The great steadiness which characterises the ratio of the last 10 years is its most important feature; and the absence of fluctuation is, as in the case of the European Army, an index that a standard has been attained, and that disease is comparatively under control.

Contagious fevers a cause of excessive fluctuation in the jail mortality.

It is, however, necessary that I should make this reservation, that, while the progress indicated is true and undeniable, the prevalence of epidemic contagious fevers in the first nine years caused nearly 6,000 deaths, while from 1867 to 1876 not more than 500 deaths were attributed to the same influence. Some might conclude that this comparative immunity followed as a consequence of sanitary improvements carried out, and was fairly a part of the general advance towards a higher standard of health. I should do wrong if I countenanced such an opinion, and claimed for sanitation the credit of having stamped out this pestilence.

It may not be in our generation that the necessity for a clear comprehension of the etiological relations of this epidemic typhus may arise. But not the less is it necessary in the interests of those to come after us, that the teachings of these nine years, during which the fever prevailed, should be recorded. Recur it must; and not necessarily in sequence to insanitary conditions which in the interval may have crept into these jails. And it is, above all, essential to the saving of life, that the observer in the future shall know what to expect; for to temporise with a typhus is to allow a conflagration to gain head which is finally quenched after excessive loss, if quenched at all. Therefore it is that I have given so prominent a place in this section to the epidemic contagious fever of 1859—67; and if I have insisted strongly on the recognition of

certain principles in connection with its history, it is because I know that the very same objections and doubts will certainly be brought up again, and lead to not less disastrous consequences than have followed the assertion of erroneous individual opinions in our time.

Taken province by province the improvement in the health of the prisoners is consistently observed.

It is not only in the statistics of the prison population as a body that the improvement is evident. Taken province by province the history is consistent. In Bengal Proper, which has no typhus, the diminution of the ratio in the two nine-year periods, is from 90 to 70; in Oudh, from 83 to 22; in the North-Western Provinces from 72 to 36; in the Central Provinces from 64 to 39; and in the Punjab from 46 to 33.

Both in epidemic disease and in the diseases of debility which characterise the death-rates of prisoners progress is evident and satisfactory.

It is in the ratio for cholera, fever, and dysentery that the diminution is most apparent. Dysentery, or the diarrhœa of anæmia, is the disease peculiar to the prisoner; and no more satisfactory test of his condition can be applied than the ratios which show the tendency to succumb to bowel complaints, or the reverse.

These are the death ratios per 1,000 of strength for dysentery and diarrhœa under the various administrations, taken over the 18-year period :—

	Bengal.	Oudh.	N.-W. Provinces.	Central Provinces.	Punjab.	Bengal Presidency.
1859-67 .	43·11	39·85	24·94	24·13	11·28	29·48
1868-76 .	21·93	8·05	17·08	17·08	7·98	15·62

These ratios show a diminution of nearly one-half in the mortality caused by bowel affections.

The following are the cholera-ratios of the two periods :—

	Bengal.	Oudh.	N.-W. Provinces.	Central Provinces.	Punjab.	Bengal Presidency.
1859-67 .	19·40	7·40	7·59	11·27	2·19	10·77
1868-76 .	7·85	·82	1·45	2·73	·82	3·28

This is a very perfect demonstration, showing the direct relation which the liability to the attack of cholera in epidemic seasons bears to the hygienic conditions under which the body subjected to the attack is placed.

In Upper India, the fever ratio of the later of the two periods implies the comparative absence of contagious fevers. The disparity is very striking and significant. The ratio for Bengal Proper is not proportionate to that for bowel complaints, and in the worst years has never exceeded 6 per 1,000—

	Bengal.	Oudh.	N.-W. Provinces.	Central Provinces.	Punjab.	Bengal Presidency.
1859-67 .	4·80	22·70	22·41	12·70	21·90	15·58
1868-76 .	3·50	2·42	3·29	3·35	9·25	4·50

The mortality from diseases of anæmia, spleen disease, dropsy, scurvy and atrophy, is also less, although not so markedly so as in the other illustrations—

	Bengal.	Oudh.	N.-W. Provinces.	Central Provinces.	Punjab.	Bengal Presidency.
1859-67 .	7·81	3·85	5·31	5·05	2·78	5·51
1868-76 .	5·29	2·07	3·11	5·11	1·38	3·39

In summary, the comparison stands thus—

Causes of Death.	Bengal.		Oudh.		N.-W. Provinces.		Central Provinces.		Punjab.		Bengal Presidency.	
	1859-67.	1868-76.	1859-67.	1868-76.	1859-67.	1868-76.	1859-67.	1868-76.	1859-67.	1868-76.	1859-67.	1868-76.
Cholera . .	19·40	7·85	7·40	·82	7·59	1·45	11·27	2·73	2·19	·82	10·77	3·28
Fevers . .	4·80	3·50	22·70	2·42	22·41	3·29	12·70	3.35	21·90	9·25	15·58	4·50
Apoplexy . .	·63	·43	·47	·52	·75	·70	·19	·33	·62	·65	·61	·57
Dysentery .	43·11	21·93	39·85	8·05	24·94	17·08	24·13	17·08	11·28	7·98	29·48	15·62
Hepatitis .	·50	·18	·08	·15	·23	·12	·11	·36	·16	·12	·29	·15
Diseases of Anæmia .	7·81	5·29	3·85	2·07	5·31	3·11	5·05	5·11	2·78	1·38	5·51	3·39
Respiratory Diseases .	4·55	4·13	1·91	2·03	3·72	5·03	3·80	3·94	2·81	8·00	3·67	4·05
Heart Diseases	·40	·41	·10	·19	·16	·20	·13	·46	·28	·18	·26	·28
Phthisis . .	3·99	3·87	·41	2·37	1·57	1·66	·72	·78	·55	·92	2·02	2·32
Injuries . .	·75	·65	·70	·44	·90	·52	·74	·68	·61	·74	·76	·60
All other Causes . .	4·36	3·21	6·03	2·62	4·94	3·18	4·94	4·13	3·28	2·90	4·50	3·11
All Causes .	90·30	51·45	83·50	21·68	72·52	36·34	63·78	38·95	46·46	32·94	73·45	38·67

DEATHS and DEATH-RATIOS of the JAIL ADMINISTRATIONS of BENGAL for EIGHTEEN YEARS from 1859 to 1876.

Deaths of provinces, 1859-76, a comparative statement in two nine-year periods, in summary and in detail.

The details of the mortality of the eighteen years, 56,616

JAIL MORTALITY OF THE BENGAL

Arranged according to Administrations,

PROVINCE.	Year.	Average Strength.	Total Deaths.	Number of Deaths from the Chief Causes of Mortality.														
				Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Disease.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Injuries.	All other Causes.
Lower Provinces, including Assam.	1859	17,669	1,903	337	10	95	17	970	4	3	104	7	101	69	7	93	13	73
	1860	16,536	2,378	694	16	99	14	1,074	10	5	90	6	90	73	9	98	7	91
	1861	16,235	1,484	235	2	81	9	769	9	7	81	9	75	59	9	55	8	76
	1862	17,019	1,308	150	...	93	13	698	5	11	79	3	81	58	10	43	11	53
	1863	17,603	1,639	372	1	75	5	901	5	13	67	6	71	65	1	59	7	69
	1864	16,898	1,119	267	7	62	9	489	7	8	52	7	50	46	2	48	19	46
	1865	17,554	1,078	202	19	89	14	474	12	14	66	9	47	32	4	28	12	56
	1866	20,333	2,204	633	10	95	9	966	14	15	90	10	57	60	4	113	38	78
	1867	18,504	1,128	180	9	71	10	486	14	11	92	6	60	39	5	69	13	63
	1859-67	**158,371**	**14,301**	**3,072**	**74**	**760**	**100**	**6,827**	**80**	**87**	**721**	**63**	**632**	**503**	**51**	**597**	**118**	**616**
	1868	17,695	939	122	1	56	8	409	1	8	66	6	51	35	...	102	10	64
	1869	18,529	1,019	212	1	81	8	380	4	8	75	8	79	29	1	68	8	57
	1870	18,040	834	177	6	59	4	281	6	14	61	5	47	19	2	62	14	74
	1871	17,770	713	56	...	58	9	311	7	12	69	8	67	16	1	44	7	48
	1872	19,102	1,019	135	6	76	8	489	4	8	75	7	53	33	2	36	23	64
	1873	20,556	996	153	1	54	13	462	1	10	85	18	68	29	...	37	16	49
	1874	21,766	1,138	149	4	88	10	559	1	14	99	7	105	42	2	45	16	57
	1875	21,236	1,076	109	...	92	10	499	3	32	88	8	65	37	7	62	10	54
	1876	22,058	1,229	274	4	55	6	489	5	13	111	5	149	34	...	66	11	77
	1868-76	**176,882**	**9,093**	**1,387**	**23**	**619**	**76**	**3,879**	**32**	**119**	**729**	**72**	**684**	**277**	**15**	**522**	**115**	**544**
	1859-76	**335,253**	**23,394**	**4,459**	**97**	**1,379**	**176**	**10,706**	**112**	**206**	**1,450**	**135**	**1,316**	**780**	**66**	**1,119**	**233**	**1,160**
Oudh	1859	1,029	113	7	...	34	...	33	...	...	1	...	...	...	7	9	2	29
	1860	1,605	295	10	...	167	2	73	...	...	1	...	1	1	5	6	2	27
	1861	2,824	192	21	...	35	3	102	...	...	1	...	...	...	1	4	4	19
	1862	4,330	225	4	...	31	...	155	...	2	10	...	1	2	...	3	1	16
	1863	4,911	658	174	...	41	3	350	...	1	19	2	1	2	...	5	3	57
	1864	5,604	476	38	...	52	2	324	...	3	9	...	1	1	...	1	5	40
	1865	5,823	650	14	...	135	5	379	1	...	14	...	3	...	...	69	6	24
	1866	5,967	445	...	...	337	3	69	...	...	7	1	...	3	...	8	4	13
	1867	6,580	175	16	...	46	...	56	2	5	12	1	9	1	...	10	...	17
	1859-67	**38,673**	**3,220**	**286**	**...**	**878**	**18**	**1,541**	**3**	**11**	**74**	**4**	**16**	**10**	**13**	**115**	**27**	**233**
	1868	6,756	161	...	...	84	2	42	...	1	9	1	7	...	...	4	1	10
	1869	7,718	157	8	1	17	10	66	1	1	12	1	15	1	...	4	2	18
	1870	6,907	163	1	1	13	2	76	1	...	7	1	26	6	1	18	2	8
	1871	6,403	156	3	...	5	...	56	1	...	10	5	28	1	...	20	2	25
	1872	7,632	289	22	2	10	1	144	1	...	21	3	33	2	...	21	6	24
	1873	8,614	212	15	3	14	8	64	3	1	25	1	19	2	...	27	5	25
	1874	8,809	141	...	1	14	2	40	1	...	33	...	13	4	1	15	6	21
	1875	8,148	116	7	...	7	3	36	2	3	12	1	17	1	...	1	3	23
	1876	7,471	98	...	...	2	8	27	...	...	20	...	14	1	...	6	3	17
	1868-76	**68,458**	**1,484**	**56**	**8**	**166**	**36**	**551**	**10**	**6**	**139**	**13**	**162**	**18**	**2**	**116**	**30**	**171**
	1859-76	**107,131**	**4,713**	**342**	**8**	**1,044**	**54**	**2,092**	**13**	**17**	**213**	**17**	**178**	**28**	**15**	**231**	**57**	**404**
N. W. Provinces	1859	12,354	1,279	56	2	170	10	640	2	4	88	3	33	12	3	141	32	86
	1860	13,703	1,949	219	3	674	16	589	2	2	107	...	34	10	1	169	12	97
	1861	16,044	2,148	439	1	612	13	721	6	8	76	3	24	7	1	111	17	109
	1862	16,033	1,156	31	2	494	11	386	2	4	55	1	13	8	1	48	11	89
	1863	15,882	1,154	155	2	404	5	353	...	2	64	5	25	4	1	41	8	85
	1864	15,919	1,015	81	2	477	12	219	2	7	37	1	29	4	1	36	18	88
	1865	16,088	511	29	2	123	17	213	1	5	24	4	13	4	...	26	9	41
	1866	16,033	385	2	1	84	16	151	...	4	29	3	19	7	...	21	19	29
	1867	15,678	393	34	...	49	2	163	3	2	32	2	27	6	1	23	8	41
	1859-67	**137,754**	**9,990**	**1,046**	**15**	**3,087**	**103**	**3,435**	**32**	**45**	**512**	**22**	**217**	**62**	**9**	**616**	**124**	**665**
	1868	16,202	330	9	...	46	5	138	2	6	37	1	24	1	3	19	3	36
	1869	19,486	821	98	6	89	56	347	3	16	80	3	28	7	1	43	12	38
	1870	19,039	913	32	1	118	5	475	7	7	80	3	21	11	...	89	9	55
	1871	17,212	689	2	...	109	7	359	1	6	86	5	16	10	...	27	8	53
	1872	18,232	720	46	...	35	2	438	1	6	96	3	35	14	1	41	10	62
	1873	20,503	893	31	7	32	18	428	1	6	152	7	56	2	2	59	16	98
	1874	22,210	933	30	8	62	6	432	3	16	145	4	48	9	...	27	16	85
	1875	24,034	638	14	...	84	13	213	3	14	122	7	34	5	...	37	13	77
	1876	22,942	571	1	...	29	15	238	...	5	111	4	39	7	...	45	7	59
	1868-76	**180,851**	**6,573**	**263**	**22**	**595**	**127**	**3,090**	**21**	**70**	**909**	**37**	**301**	**66**	**7**	**417**	**94**	**554**
	1859-76	**318,605**	**16,563**	**1,309**	**37**	**3,682**	**230**	**6,525**	**53**	**115**	**1,421**	**59**	**518**	**128**	**16**	**1,033**	**218**	**1,21**

deaths, out of an aggregate of 1,043,816 prisoners, is exhibited in a tabular form on the four following pages :—

PRESIDENCY FROM 1859 TO 1876.

and aggregated in Two Nine-Year Periods.

Years.	Died per 1,000 of Strength.			Death-rate per 1,000 from the Chief Causes of Mortality.													
	A Cholera.	B All other causes.	C All causes.	Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Injuries.	All other Causes.
1859	19·07	88·63	107·70	19·07	·57	5·38	·96	54·90	·23	·17	5·88	·49	5·72	3·90	·40	5·26	·73	4·13
1860	41·97	101·84	143·81	41·97	·97	5·99	·85	64·95	·61	·30	5·44	·36	5·44	4·54	·54	5·93	·42	5·50
1861	14·48	76·93	91·41	14·48	·12	4·99	·55	47·37	·55	·43	4·99	·55	4·62	3·64	·55	3·39	·50	4·68
1862	8·81	68·05	76·86	8·81	...	5·46	·76	41·01	·29	·65	4·64	·18	4·76	3·41	·59	2·53	·65	3·12
1863	21·13	75·39	96·52	21·13	·06	4·26	·28	51·19	·28	·74	3·81	·34	4·03	3·69	·06	2·84	·40	3·41
1864	15·80	50·42	66·22	15·80	·41	3·67	·53	28·94	·41	·48	3·08	·41	2·96	2·72	·12	2·84	1·13	2·72
1865	11·51	49·90	61·41	11·51	1·08	5·07	·80	27·00	·68	·80	3·76	·51	2·68	1·82	·23	1·69	·68	3·19
1866	31·20	77·09	108·29	31·20	·49	4·67	·44	47·46	·69	·74	4·42	·49	2·80	2·95	·20	5·55	1·38	4·81
1867	9·73	51·23	60·96	9·73	·49	3·84	·54	26·27	·76	·59	4·97	·32	3·24	2·11	·27	3·73	·70	3·40
1859-67	**19·40**	**70·90**	**90·30**	**19·40**	**·47**	**4·80**	**·63**	**43·11**	**·50**	**·55**	**4·55**	**·40**	**3·99**	**3·17**	**·32**	**3·77**	**·75**	**3·89**
1868	6·89	46·18	53·07	6·89	·06	3·16	·45	23·11	·06	·45	3·74	·34	2·88	1·98	...	5·76	·57	3·62
1869	11·40	43·39	54·79	11·40	·05	4·36	·43	20·43	·22	·43	4·03	·43	4·25	1·56	·05	3·66	·43	3·06
1870	9·81	36·42	46·23	9·81	·33	3·27	·22	15·58	·33	·78	3·38	·28	2·60	1·32	·11	3·44	·78	4·10
1871	3·15	36·97	40·12	3·15	...	3·26	·51	17·50	·39	·68	3·88	·45	3·77	·90	·06	2·48	·39	2·70
1872	7·07	46·28	53·35	7·07	·31	3·98	·42	25·60	·21	·42	3·93	·37	2·78	1·73	·10	1·88	1·20	3·35
1873	7·44	41·01	48·45	7·44	·05	2·63	·63	22·47	·05	·49	4·13	·88	3·31	1·41	...	1·80	·78	2·38
1874	6·85	48·19	55·04	6·85	·18	4·04	·46	25·68	·05	·64	4·55	·32	4·82	1·93	·09	2·07	·74	2·62
1875	5·12	45·41	50·53	5·12	...	4·32	·47	23·43	·14	1·50	4·13	·38	3·05	1·74	·33	2·91	·47	2·54
1876	12·42	46·47	58·89	12·42	·18	2·49	·27	22·17	·23	·59	5·03	·23	6·76	1·54	...	2·99	·50	3·49
1868-76	**7·85**	**43·60**	**51·45**	**7·85**	**·13**	**3·50**	**·43**	**21·93**	**·18**	**·68**	**4·13**	**·41**	**3·87**	**1·57**	**·09**	**2·95**	**·65**	**3·08**
1859-76	**13·51**	**56·50**	**69·81**	**13·31**	**·29**	**4·12**	**·53**	**31·96**	**·33**	**·61**	**4·32**	**·40**	**3·93**	**2·32**	**·20**	**3·34**	**·69**	**3·46**
1859	6·80	103·01	109.81	6·80	...	33·04	...	32·07	...	...	·97	...	...	...	6·80	8·75	1·94	19·44
1860	6·23	177·57	183·80	6·23	...	104·05	1·25	45·48	...	...	·62	...	·62	·62	3·12	3·74	1·25	16·82
1861	8·15	59·84	67·99	8·15	...	12·39	1·06	36·12	...	...	·35	...	...	...	·35	1·42	1·42	6·73
1862	·92	51·04	51·96	·92	...	7·16	...	35·80	...	·46	2·31	...	·23	·46	...	·69	·23	3·70
1863	35·43	98·55	133·98	35·43	...	8·35	·61	71·27	...	·20	3·87	·41	·20	·41	...	1·02	·61	11·60
1864	6·78	78·16	84·94	6·78	...	9·28	·36	57·81	...	·54	1·60	...	·18	·18	...	·18	·89	7·14
1865	2·40	109·23	111·63	2·40	...	23·19	·86	65·09	·17	...	2·40	...	·52	...	...	11·85	1·03	4·12
1866	...	74·58	74·58	...	...	56·48	·50	11·57	...	...	1·17	·17	...	·50	...	1·34	·67	2·18
1867	2·43	24·17	26·60	2·43	...	7·09	...	8·51	·30	·76	1·82	·15	1·37	·15	...	1·52	...	2·59
1859-67	**7·40**	**76·10**	**83·50**	**7·40**	**...**	**22·70**	**·47**	**39·85**	**·08**	**·28**	**1·91**	**·10**	**·41**	**·26**	**·34**	**2·97**	**·70**	**6·03**
1868	...	23·83	23·83	...	...	12·43	·30	6·22	...	·15	1·33	·15	1·03	...	...	·59	·15	1·48
1869	1·04	19·30	20·34	1·04	·13	2·20	1·29	8·55	·13	·13	1·56	·13	1·94	·13	...	·52	·26	2·33
1870	·14	23·46	23·60	·14	·14	1·88	·29	11·01	·14	...	1·02	·14	3·77	·87	·14	2·61	·29	1·16
1871	·47	23·89	24·36	·47	...	·78	...	8·75	·16	...	1·56	·78	4·37	·16	...	3·12	·31	3·90
1872	2·88	33·81	36·69	2·88	·26	1·31	·13	18·87	·13	...	2·75	·39	3·02	·26	...	2·75	·79	3·15
1873	1·74	22·87	24·61	1·74	·35	1·62	·93	7·43	·35	·12	2·90	·12	2·20	·23	...	3·14	·58	2·90
1874	...	16·01	16·01	...	·11	1·59	·23	4·51	·11	...	2·61	...	1·48	·45	·11	1·70	·70	2·38
1875	·86	13·57	14·23	·86	...	·86	·37	4·42	·24	·37	1·47	·12	2·09	·12	...	·12	·37	2·82
1876	...	13·12	13·12	...	...	·27	1·07	3·62	...	...	2·68	...	1·87	·13	...	·80	·40	2·28
1868-76	**·82**	**20·86**	**21·68**	**·82**	**·12**	**2·42**	**·52**	**8·05**	**·15**	**·09**	**2·03**	**·19**	**2·37**	**·26**	**·03**	**1·69**	**·44**	**2·50**
1859-76	**3·19**	**40·80**	**43·99**	**3·19**	**·08**	**9·75**	**·50**	**19·53**	**·12**	**·16**	**1·99**	**·16**	**1·66**	**·26**	**·14**		**·53**	**3·77**
1859	4·53	99·00	103·53	4·53	·16	13·76	·81	51·81	·73	·32	7·12	·23	2·67	·97	·25	11·41	1·78	6·96
1860	15·98	126·25	142·23	15·98	·32	49·19	1·17	42·38	·66	·66	7·80	...	2·48	·73	·07	12·33	·88	7·08
1861	27·36	106·52	133·88	27·36	·06	38·14	·81	44·94	·37	·50	4·74	·19	1·50	·44	·06	6·92	1·06	6·79
1862	1·93	70·17	72·10	1·93	·13	30·81	·69	24·07	·13	·25	3·43	·06	·81	·50	·06	2·99	·69	5·55
1863	9·76	62·90	72·66	9·76	·13	25·44	·31	22·23	...	·13	4·03	·31	1·57	·25	·06	2·58	·51	5·35
1864	5·09	58·67	63·76	5·09	·13	29·96	·82	13·76	·13	·44	2·32	·06	1·82	·25	·06	2·26	1·13	5·53
1865	1·80	29·96	31·76	1·80	·12	7·65	1·06	13·24	·06	·31	1·49	·24	·81	·24	...	1·62	·56	2·55
1866	·12	23·86	23·98	·12	·06	5·23	1·00	9·41	...	·25	1·81	·19	1·18	·43	...	1·31	1·18	1·81
1867	2·17	22·90	25·07	2·17	...	3·12	·13	10·39	·19	·13	2·04	·13	1·72	·39	·06	1·47	·51	2·62
1859-67	**7·59**	**64·93**	**72·52**	**7·59**	**·11**	**22·41**	**·75**	**24·94**	**·23**	**·33**	**3·72**	**·16**	**1·57**	**·45**	**·06**	**4·47**	**·90**	**4·83**
1868	·56	19·81	20·37	·56	...	2·84	·31	8·52	·12	·37	2·28	·06	1·48	·06	·19	1·17	·19	2·22
1869	5·03	37·10	42·13	5·03	·31	4·57	2·87	17·81	·15	·51	4·10	·15	1·44	·36	·05	2·21	·62	1·95
1870	1·68	46·20	47·88	1·68	·05	6·20	·26	24·96	·37	·37	4·20	·16	1·11	·58	...	4·68	·47	2·89
1871	·12	39·38	39·50	·12	...	5·81	·41	20·86	·06	·35	5·09	·29	·93	·58	...	1·57	·46	3·68
1872	2·52	40·81	43·33	2·52	...	1·92	·11	24·03	·05	·33	5·27	·16	1·92	·77	·05	2·25	·53	3·40
1873	1·51	42·14	43·65	1·51	·34	1·56	·88	20·88	·05	·29	7·41	·34	2·73	·10	·10	1·90	·78	4·78
1874	1·29	38·99	40·28	1·29	·34	2·67	·26	18·61	·13	·43	6·25	·17	2·07	·39	...	3·32	·69	3·66
1875	·58	25·97	26·55	·58	...	3·50	·54	8·94	·13	·58	5·08	·29	1·42	·21	...	1·54	·54	3·29
1876	·04	24·85	24·89	·04	...	1·26	·65	11·25	...	·22	4·84	·17	1·70	·31	...	1·96	·31	2·18
1868-76	**1·45**	**34·89**	**36·34**	**1·45**	**·12**	**3·29**	**·70**	**17·08**	**·12**	**·39**	**5·03**	**·20**	**1·66**	**·37**	**·04**	**2·31**	**·52**	**3·06**
1859-76	**4·11**	**47·88**	**51·99**	**4·11**	**·12**	**11·56**	**·72**	**20·48**	**·17**	**·36**	**4·46**	**·19**	**1·63**	**·40**	**·05**	**3·24**	**·08**	**3·82**

JAIL MORTALITY OF THE BENGAL

Arranged according to Administrations,

PROVINCE.	Year.	Average Strength.	Total Deaths.	Number of Deaths from the Chief Causes of Mortality.														
				Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Injuries.	All other Causes.
CENTRAL PROVINCES	1859	4,326	315	...	...	77	1	112	1	...	30	...	4	6	10	20	8	44
	1860	4,271	283	80	...	47	...	85	1	...	9	...	3	4	4	18	8	24
	1861	4,490	139	8	...	19	1	60	...	...	10	...	3	4	13	6	1	14
	1862	4,670	172	14	...	33	1	85	1	...	9	2	1	3	4	9	...	10
	1863	4,649	336	59	4	65	...	157	...	...	12	1	5	1	...	7	1	24
	1864	3,991	252	63	1	54	...	93	...	...	15	...	2	...	1	9	1	13
	1865	3,872	487	143	1	115	2	141	...	3	20	1	4	1	4	23	4	23
	1866	3,668	265	57	...	47	...	102	...	1	12	1	3	3	2	11	3	13
	1867	3,694	151	...	...	21	2	73	1	3	16	...	2	1	3	14	2	13
	1859-67	**37,631**	**2,400**	**424**	**6**	**478**	**7**	**908**	**4**	**9**	**143**	**5**	**27**	**23**	**41**	**117**	**28**	**180**
	1868	3,576	107	6	...	22	2	44	2	...	8	2	1	1	2	6	2	2
	1869	3,814	244	47	...	16	4	120	1	...	17	...	3	3	...	18	2	13
	1870	3,118	140	1	...	14	1	62	1	...	13	1	1	2	10	10	3	21
	1871	2,772	73	2	...	8	2	29	...	1	2	1	4	2	3	1	6	4
	1872	2,885	119	4	...	10	...	64	...	3	6	...	2	4	1	15	1	2
	1873	3,500	109	...	...	12	...	56	2	1	10	4	...	2	1	2	1	11
	1874	3,660	132	...	...	6	...	63	1	...	2	4	1	1	2	21	3	23
	1875	3,589	118	17	...	2	...	26	2	1	24	1	5	1	1	10	...	21
	1876	3,821	155	7	...	6	1	61	2	1	25	1	7	4	1	12	3	17
	1868-76	**30,735**	**1,197**	**84**	**...**	**103**	**10**	**525**	**11**	**7**	**121**	**14**	**24**	**20**	**21**	**109**	**21**	**127**
	1859-76	**68,366**	**3,597**	**508**	**6**	**581**	**17**	**1,433**	**15**	**16**	**264**	**19**	**51**	**43**	**62**	**226**	**49**	**307**
PUNJAB	1859	11,355	258	1	...	77	2	98	2	2	32	4	5	1	2	10	3	27
	1860	10,233	229	1	1	52	2	87	2	2	28	2	2	...	4	8	6	25
	1861	11,323	257	69	...	39	6	37	...	4	51	4	1	6	10	36	2	63
	1862	10,819	665	93	...	315	1	153	1	1	31	4	3	2	5	14	8	34
	1863	9,989	659	...	...	327	8	153	2	2	34	2	7	6	6	54	3	51
	1864	9,630	826	1	...	518	9	139	1	3	34	3	8	1	2	46	13	48
	1865	10,482	366	2	1	227	16	50	3	3	15	1	5	4	...	12	5	23
	1866	10,697	196	...	4	98	4	26	2	2	12	2	10	1	...	7	3	14
	1867	10,506	259	41	1	78	11	59	2	1	30	5	4	1	...	6	2	18
	1859-67	**95,034**	**4,415**	**208**	**7**	**2,081**	**59**	**1,072**	**15**	**20**	**267**	**27**	**52**	**22**	**29**	**193**	**58**	**305**
	1868	11,056	137	...	1	33	4	34	...	3	23	2	8	...	...	7	5	17
	1869	12,381	413	22	...	180	10	92	3	2	48	1	10	6	...	7	4	28
	1870	12,785	460	...	...	150	5	104	3	2	126	...	11	4	1	11	8	33
	1871	13,385	364	...	2	101	13	99	1	5	80	1	11	5	...	10	12	33
	1872	13,512	466	41	...	107	4	140	3	...	99	3	14	5	1	11	9	29
	1873	13,863	676	...	1	255	15	105	1	4	197	3	13	2	...	18	11	49
	1874	14,619	469	...	1	98	4	86	2	2	158	3	14	5	...	13	9	74
	1875	14,347	455	21	...	108	11	108	1	2	112	6	12	4	1	8	18	40
	1876	13,479	494	14	1	73	11	194	...	1	113	1	17	5	...	17	12	33
	1868-76	**119,427**	**3,934**	**98**	**6**	**1,105**	**77**	**953**	**14**	**24**	**956**	**22**	**110**	**36**	**3**	**102**	**88**	**340**
	1859-76	**214,461**	**8,349**	**306**	**13**	**3,186**	**136**	**2,025**	**29**	**44**	**1,223**	**49**	**162**	**58**	**32**	**295**	**146**	**645**
BENGAL PRESIDENCY	**1859-67**	**467,463**	**34,335**	**5,036**	**102**	**7,284**	**287**	**13,783**	**134**	**172**	**1,717**	**121**	**944**	**620**	**143**	**1,638**	**355**	**1,999**
	1868-76	**576,353**	**22,281**	**1,838**	**59**	**2,588**	**326**	**8,998**	**88**	**226**	**2,854**	**158**	**1,281**	**417**	**48**	**1,266**	**348**	**1,736**
	1859-76	**1,043,816**	**56,616**	**6,924**	**161**	**9,872**	**613**	**22,781**	**222**	**398**	**4,571**	**279**	**2,225**	**1,037**	**191**	**3,904**	**703**	**3,735**

PRESIDENCY FROM 1859 TO 1876—*continued.*

and aggregated in Two Nine-Year Periods.

Years.	Died per 1,000 of Strength.			Death-rate per 1,000 from the Chief Causes of Mortality.													
	A Cholera.	B All other causes.	C All causes.	Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Injuries.	All other Causes.
1859	...	72·81	72·81	...	...	17·80	·23	25·89	·23	·46	6·94	...	·92	1·39	2·31	4·62	1·85	10·17
1860	18·73	47·53	66·26	18·73	...	11·09	...	19·90	·23	...	2·10	...	·70	·94	·94	4·21	1·87	5·62
1861	1·78	29·18	30·96	1·78	...	4·23	·22	13·36	...	...	2·23	...	·67	·89	2·90	1·34	·22	3·12
1862	3·00	33·83	36·83	3·00	...	7·07	·21	18·20	·21	...	1·93	·43	·21	·64	·86	1·93	...	2·14
1863	12·69	59·58	72·27	12·69	·86	13·98	...	33·77	...	...	2·58	·42	1·07	·22	...	1·50	·22	5·16
1864	15·79	47·35	63·14	15·79	·25	13·53	...	23·30	...	...	3·76	...	·50	...	·25	2·25	·25	3·26
1865	36·93	88·84	125·77	36·93	·26	29·70	·52	36·42	...	·77	5·16	·26	1·03	·26	1·03	5·94	1·03	6·46
1866	15·54	56·71	72·25	15·54	...	12·81	...	27·81	...	·27	6·00	·27	·82	·82	·55	3·00	·82	3·54
1867	...	40·87	40·87	...	...	5·69	·54	19·76	·27	·81	4·33	...	·54	·27	·81	3·79	·54	3·52
1859-67	**11·27**	**52·51**	**63·78**	**11·27**	**·16**	**12·70**	**·19**	**24·13**	**·11**	**·24**	**3·80**	**·13**	**·72**	**·61**	**1·09**	**3·11**	**·74**	**4·78**
1868	1·68	28·24	29·92	1·68	...	6·15	·56	12·30	·56	...	2·23	·56	·28	·28	·56	1·68	·56	2·52
1869	12·32	51·65	63·97	12·32	...	4·19	1·05	31·46	·26	...	4·46	...	·79	·79	...	4·72	·52	3·41
1870	·32	44·58	44·90	·32	...	4·49	·32	19·88	·32	...	4·17	·32	·32	·64	3·21	3·21	·96	6·74
1871	·72	25·62	26·34	·72	...	2·89	·72	10·46	...	·36	3·25	·36	1·44	·72	1·08	·36	2·17	1·81
1872	1·39	39·86	41·25	1·39	...	3·47	...	22·18	...	1·04	2·08	...	·69	1·38	·35	5·20	·35	3·12
1873	...	31·14	31·14	...	...	3·42	...	16·00	·57	·29	2·86	1·14	...	·57	·29	2·57	·29	3·14
1874	...	36·07	36·07	...	...	1·64	...	17·22	·27	...	2·46	1·09	·27	·27	·55	5·74	·82	5·74
1875	4·74	28·14	32·88	4·74	...	2·50	...	7·24	·56	·28	6·69	·28	1·39	·28	·28	2·79	...	5·85
1876	1·83	38·73	40·56	1·83	...	1·57	·26	15·96	·53	·26	6·54	·26	1·83	1·05	·26	4·97	·79	4·45
1868-76	**2·73**	**36·22**	**38·95**	**2·73**	**...**	**3·35**	**·33**	**17·08**	**·36**	**·23**	**3·94**	**·46**	**·78**	**·65**	**·68**	**3·55**	**·68**	**4·13**
1859-76	**7·43**	**45·18**	**52·61**	**7·43**	**·09**	**8·50**	**·25**	**20·96**	**·22**	**·23**	**3·86**	**·28**	**·74**	**·63**	**·91**	**3·30**	**·72**	**4·49**
1859	·09	22·63	22·72	·09	...	6·78	·18	8·63	·18	·18	1·94	·35	·44	·09	·18	·88	·44	2·38
1860	·10	22·28	22·38	·10	·10	5·08	·20	8·50	·20	·20	2·73	·20	·88	...	·39	·78	·58	2·44
1861	6·09	78·43	84·52	6·09	...	34·36	·53	27·11	...	·35	4·51	·35	·09	·53	·88	3·18	·80	5·74
1862	8·60	52·87	61·47	8·60	...	29·12	·09	14·14	·09	·09	2·87	·37	·28	·18	·46	1·39	·74	3·14
1863	...	65·97	65·97	...	...	32·74	·80	15·32	·20	·20	3·40	·20	·70	·60	·60	5·41	·70	5·10
1864	·10	85·67	85·77	·10	...	53·80	·94	14·44	·10	·31	3·53	·31	·83	·10	·20	4·78	1·33	4·98
1865	·19	34·73	34·92	·19	·10	21·66	1·53	4·77	·19	·28	1·43	·10	·48	·38	...	1·14	·48	2·19
1866	...	18·32	18·32	...	·37	9·16	·37	2·43	·28	·19	2·06	·19	·93	·10	...	·65	·28	1·31
1867	[3·90	20·76	24·66	3·90	·10	7·42	1·05	5·62	·19	·10	2·85	·48	·38	·10	...	·57	·19	1·71
1859-67	**2·19**	**44·27**	**46·46**	**2·19**	**·07**	**21·00**	**·62**	**11·28**	**·16**	**·21**	**2·81**	**·28**	**·55**	**·23**	**·31**	**2·03**	**·61**	**3·21**
1868	...	12·39	12·39	...	·09	2·99	·36	3·08	...	·27	2·08	·18	·72	...	...	·63	·45	1·54
1869	1·78	31·58	33·36	1·78	...	14·54	·81	7·43	·24	·16	3·88	·08	·81	·48	...	·57	·32	2·26
1870	...	35·98	35·98	...	...	11·73	·32	8·14	·24	·16	9·85	...	·86	·31	·08	·86	·62	2·74
1871	...	27·19	27·19	...	·15	7·55	·35	6·72	·08	·37	5·98	·08	·82	·37	...	·75	·30	2·47
1872	3·03	31·46	34·49	3·03	...	7·32	·30	10·36	·22	...	7·33	·22	1·04	·37	·08	·81	·67	2·14
1873	...	48·76	48·76	...	·07	18·39	1·08	7·57	·07	·29	14·21	·36	·94	·14	...	1·20	·80	3·54
1874	...	32·08	32·08	...	·07	6·70	·27	5·88	·14	·14	10·81	·21	·96	·34	...	·89	·61	5·06
1875	1·46	30·25	31·71	1·46	...	7·53	·77	7·53	·07	·35	7·81	·42	·84	·28	·07	·56	1·25	2·79
1876	1·04	35·61	36·65	1·04	·08	5·41	·81	14·39	...	·08	8·38	·08	1·26	·37	...	1·26	·89	2·60
1868-76	**·82**	**32·12**	**32·94**	**·82**	**·05**	**9·25**	**·65**	**7·98**	**·12**	**·20**	**8·00**	**·18**	**·92**	**·30**	**·03**	**·85**	**·74**	**2·85**
1859-76	**1·43**	**37·50**	**38·93**	**1·43**	**·06**	**14·85**	**·63**	**9·44**	**·14**	**·21**	**5·70**	**·23**	**·75**	**·27**	**·15**	**1·23**	**·68**	**3·01**
1859-67	**10·77**	**62·68**	**73·45**	**10·77**	**·22**	**15·58**	**·61**	**29·48**	**·29**	**·37**	**3·67**	**·26**	**2·02**	**1·33**	**·31**	**3·50**	**·76**	**4·28**
1868-76	**3·28**	**35·39**	**38·67**	**3·28**	**·10**	**4·50**	**·57**	**15·62**	**·15**	**·39**	**4·95**	**·28**	**2·22**	**·72**	**·08**	**2·20**	**·60**	**3·01**
1859-76	**6·63**	**47·61**	**54.24**	**6·63**	**·15**	**9·46**	**·59**	**21·83**	**·21**	**·38**	**4·38**	**·37**	**2·13**	**1·00**	**·18**	**2·78**	**·67**	**3·58**

The ten-year standard which I have based on the statistics of 1867-76 is a fair average. It is arranged by months, and detailed for administrations; it is a valuable record illustrative of the relation of disease to the conditions prevailing at different seasons in the various provincial areas. These areas are in some instances made up of sub-divisions which can be recognised as natural; and the statistics of these I have thought it worth while to show separately. Again, some jails are healthy, and others are unhealthy; some are typical, and some have special characteristics which necessitate special illustration. On this account, I have selected for permanent record a few jails whose statistics teach something which it is important to recognise, and every one of these cases will be found of sufficient interest to justify the selection.

Ten-year standard of 1867-76. Its general arrangement.

The standard is made up of a series of fifty-six tables, and the general scheme may be comprehended by a perusal of the Table of Contents prefixed.

The phenomenon so strikingly illustrated in the case of the Native Army is here repeated; the prison population remains healthy up to August, and between August and January 65 per cent. of the total mortality occurs. October, November and December tell upon the health of those who are old, or debilitated by the influences of the monsoon season; and it is the effect of cold which immediately determines the high death-rates of these months. In August, fevers, dysentery and diseases of anæmia begin to prevail; and towards the end of October, pneumonia comes in to carry on to a fatal termination what has been in progress during the three unhealthy months preceding.

Distribution of jail mortality by months. Special diseases as related to the monthly mortality.

This is shown in the statistics of the ten years by these proportionate ratios:—

Distribution of Mortality by Months.

Died out of each 100 deaths—Jail Population, 1867—76.

	All Causes.*	Fevers.	Dysentery.	General Debility.	Phthisis.	Respiratory Diseases.	Apoplexy.	All other Causes.
January	9·8	8·7	8·9	9·9	9·1	14·7	4·0	10·0
February	6·7	7·9	5·3	7·1	6·4	9·9	4·6	7·4
March	6·0	9·8	4·2	6·3	7·1	8·3	4·0	5·9
April	5·7	8·2	4·6	5·4	7·1	6·4	3·1	6·1
May	5·7	7·0	4·3	6·0	8·2	5·8	13·4	6·8
June	5·5	4·9	3·9	6·0	8·7	5·2	37·9	6·8
July	5·4	4·0	5·0	5·8	7·4	4·9	9·4	7·4
August	7·7	6·2	8·7	9·0	8·6	4·5	5·1	7·9
September	9·9	8·7	12·2	9·1	7·7	6·2	4·3	9·2
October	12·2	12·7	14·5	11·0	9·0	8·4	6·8	9·8
November	13·0	12·7	14·9	12·4	10·8	10·7	4·3	11·8
December	12·4	9·2	13·5	12·0	9·9	15·0	3·1	10·9
	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0

At least three-fourths of the mortality of prisoners is caused by diseases of debility. Diarrhœa, spleen disease, and anæmia, low forms of chest affections and pulmonary consumption. Towards 100 deaths, these in our standard contribute 75. Nor is the ratio much varied under the different administrations. Taken in the aggregate, this class of disease contributes to the total mortality in Bengal 82 per cent.; in the North-Western Provinces 78; in Oudh 70; in the Central Provinces 76; and in the Punjab 58. In the Punjab fevers give double the mortality in proportion, as compared with any other administrative area; and these fevers are in many instances the expression in another form of the influences of the cold season on the debilitated prisoner. Adding in non-contagious fevers, 78 per cent. of the jail mortality of the Punjab falls under the same heads.

Diseases of debility. Proportion of deaths from this class of diseases under the different administrations. The death-rates from all causes compared.

Composition of the Death-rate of the Presidency and of the Jails under the different Administrations—Standard of 1867—76.

(Excluding Cholera, Smallpox and Violent Deaths.)

Dysentery and Diarrhœa.	Respiratory Diseases.	Non-contagious Fevers.	Spleen Disease and Anæmia.	Phthisis.	Contagious Fevers.	Apoplexy.	Heart Diseases.	Hepatitis.	All other Causes.
45·2	13·9	10·7	9·9	6·4	2·3	1·6	·8	·5	8·7

*Leaving out cholera, smallpox, and violent deaths.

	Bengal Proper.	Oudh.	N.-W. Provinces.	Central Provinces.	Punjab.
Dysentery and Diarrhœa .	51·4	39·2	49·9	48·1	25·6
Respiratory Diseases . .	9·7	9·8	14·3	10·9	24·9
Non-contagious Fevers .	8·1	7·1	9·6	9·7	20·2
Spleen Disease and Anæmia .	12·5	10·2	9·0	14·7	4·4
Phthisis Pulmonalis . .	8·8	11·0	5·1	2·1	2·9
Contagious Fevers . .	None	6·6	None	None	9·7
Apoplexy	1·0	2·3	2·0	1·0	2·2
Heart Diseases . . .	·9	·9	·6	1·2	·7
Hepatitis	·5	·8	·4	1·0	·4
All other Causes . . .	7·1	12·1	9·1	11·3	9·0
	100·0	100·0	100·0	100·0	100·0

The mortality from bowel complaints as exhibited in relation to season, illustrated by a typical example and by the general provincial ratios.

Above I have suggested, that the same influences for evil will in different localities produce different manifestations of disease. In the case of the Native troops in Northern India, I have in a typical example traced decay to pneumonic disease following the epidemic malarious fever of 1869, which rendered this year so singularly unhealthy as compared with other years, and above all with 1868. The following is a typical example of dysenteric disease following the influences of the very same bad months—a true homologue of the pneumonic disease of the 35th Native Infantry. Out of 1,100, the average strength of the prisoners of the Meerut Central Jail, 9 only died in 1868 from dysentery and diarrhœa; and 7 of these deaths took place in January, winding up the sickly cold season of 1867. In the 18 months from February 1868 to July 1869, 3 deaths in all occurred in this large jail which were attributed to bowel affections. In October 1869, the prisoners began to die; and with precisely the same monthly intervals noted in the case of the 35th, the mortality was renewed in 1870 and 1871, and has been continued in a typical form up to the present time, rising or falling with the influences of good or bad years. In Northern India this might have been pneumonia; in Meerut the disease fell by preference on the abdominal system. I give the deaths of this jail for dysentery month by month for the last ten years, regarding the illustration as perfect and typical:—

Deaths from Dysentery and Diarrhœa in the Meerut Central Jail, 1867—76.

	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Total.
1867	...	...	...	...	...	...	1	2	4	7	5	3	22
1868	...	...	...	...	...	...	1	...	...	...	1	7	9
1869	...	...	...	...	1	...	1	2	6	19	15	...	44
1870	2	1	1	2	3	3	2	10	6	20	24	8	82
1871	2	...	1	...	...	...	3	16	25	24	18	14	103
1872	3	1	2	1	...	1	...	6	19	13	7	10	63
1873	1	1	1	...	...	...	...	3	4	6	21	1	38
1874	3	1	...	1	...	...	1	18	19	21	5	16	85
1875	...	1	...	...	...	1	1	4	...	5	1	6	19
1876	3	1	...	...	...	...	1	7	39	10	10	3	74
	14	6	5	4	4	5	11	68	122	125	107	68	539
				38					501				

In this case, ninety-three per cent. of the mortality is comprehended in the months from August to January, and seven per cent. in the six months from February to July; and this is the perfection of demonstration. It is not to be expected that the same relative liability will appear in all examples. In Upper India the generalisation holds good; and for any province beyond the limits of Bengal Proper the parallel is evident. These are the ratios:

	February to July.	August to January.	
Punjab	19·1	80·9	=100
Central Provinces	22·9	77·1	=100
District Jails of North-Western Provinces—			
Western Division	16·7	83·3	=100
Eastern Division	22·0	78·0	=100
Oudh	31·0	69·0	=100
Behar	25·4	74·6	=100

In Bengal Proper we deal with a disease much more equally distributed over the year; prisoners begin to die from bowel affections much earlier than in Upper India, and even in June an increase in the mortality is apparent:

	February to July.	August to January.	
Eastern and Northern Bengal . . .	39·1	60·9	=100
South-Western Bengal	39·9	60·1	=100
Assam and Cachar	40·5	59·5	=100

In the distribution of fever deaths the proportion is much the same. In 100 deaths from fever, taking the administration of Bengal Proper as a whole, 41 fell between February and

July, and 59 between August and January. This disparity is related to the special climatic conditions in regard to which Lower Bengal differs from the provinces of Upper India.

The parallel manifestation by months of dysentery and respiratory diseases and fevers, illustrated from the deaths of the jails of the Punjab.

It is not necessary that the results of the general climatic influences which prevail during the rains and cold season should be manifested at Meerut as dysentery and at Lahore as pneumonia. Taking the Punjab as a province and the entire of the deaths of the ten years, the parallel rise and fall of all diseases of debility is typically shown. Some would call this general influence malaria and speak of these diseases as malarious. I note them now simply as following on the agencies normal to these months in Northern India:

Died in the Jails of the Punjab, 1867—76.

	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Dysentery	24	53	121	147	200	190	108	43
Fever	28	47	84	126	142	76	50	47
Respiratory Diseases	28	17	46	69	116	186	184	117
Anæmia, Spleen Disease and Phthisis	9	21	29	34	42	32	35	19

Taking these deaths in the aggregate, for the six months from July to December the rise to the maximum of November is shown thus in the distribution of 100 deaths:

July.	August.	September.	October.	November.	December.	
4·8	7·4	15·0	20·2	26·7	25·9	=100

I have said that these diseases of debility cause in the present time 75 per cent. of deaths from all diseases, leaving out epidemics which introduce ratios which are altogether uncertain. It is worth while to note that in Bengal Proper in particular, and generally under every Administration, the deaths from scurvy and general dropsy are very much fewer in recent years. In the latter of the two 9-year periods, the ratio for scurvy is one-fourth, as compared with the death-rate from scurvy in 1859—67. The ratio is ·08, against ·31; representing 48 deaths in the one case, and 143 in the other. In the same periods, general dropsy gave 620 deaths against 417; 1·33 per 1,000 for 1859—67, and ·72 for 1868—76.

Contrasts in the composition of the death-rates of the European soldier and the native prisoner in Bengal.

Hepatitis, enteric fever, heat apoplexy.

While in these 18 years, 22,781 deaths of prisoners were attributed to dysentery or diarrhœa, it is a remarkable contrast to find only 222 deaths, out of a total of 56,616, attributed to hepatitis. Assuming that all of these cases were correctly diagnosed and represented hepatitis as we meet with it in the European Army, an assumption entirely erroneous, the fact would still be sufficiently remarkable, that the prison community should furnish an annual ratio of ·15; contrasting with 3·31, the ratio for the British soldier, and closely approximating to that of the native soldier, which is ·17.

As far as I know, the enteric fever of the British soldier has no counterpart in the prison population. In the past six years, I have recorded 28 deaths under this head, as furnished to me. That these were typical examples of enteric fever I do not assert; nor am I prepared to affirm that the prevalence of enteric fever may not have been understated in the returns as published. The attention of medical officers has throughout these years been directed specially to this subject; and we know that generally under such circumstances, the tendency is to exaggerate and not to understate the prevalence of a special disease. In two cases in which the patient's age is given as 55 to 60 we need not hesitate to reject the diagnosis; and in others where the age is noted as between 30 and 40 we may regard the diagnosis as doubtful. In the last five years, 26 cases appear in our tables; and these were spread over the whole 12 months, giving an average little over 2 for each month of the year. And when I add, that these 26 deaths were returned from 14 different jails and from all provinces of the Presidency, it is obvious that nothing approximating to a severe outbreak of enteric fever is recorded in these tables. But I have to make this exception, that the Lahore female jail is said to have suffered from enteric fever towards the end of 1875, when three fatal cases were recorded.

Heat apoplexy is a disease from which, under exceptional conditions, the prisoner in Bengal suffers. His ratio is ·56, which contrasts with ·22, the ratio for the Native soldier. The rise of mortality with the hot weather is shown thus, in the leading table:—

Deaths of Prisoners from Heat Apoplexy, 1867—76.

April.	May.	June.	July.	August.	September.
11	47	133	33	18	15

In a few days, before and after 20th June 1869, 200 prisoners were seized with heat apoplexy in the jails of Upper India, from Benares northwards, of whom 80 died. To avoid suffocation, under such circumstances, it is essential that the prisoners should sleep in the open air; for it is poisoning by stagnant and polluted air which determines the attack in the prisoner, just as the poison of alcohol or smallpox predisposes to it in the case of the European soldier.

The contagious fevers of jails treated of in the third chapter of this section.

Of the place which contagious fevers occupy in the mortality of the prison population, I need not speak here. In our ten-year tables, the results of a few outbreaks which brought to a close the epidemic which originated in November 1859, are incorporated; and the history

of other outbreaks which probably were not etiologically related to the same epidemic, will be studied in the third chapter of this section.

Fluctuation of mortality in the Great Jails of Upper India. The significance of the concluding table, and its importance as an index.

I have placed here a general statement to show how mortality may fluctuate in the Great Jails of Upper India. Such a statement shows how much can be done to prevent prisoners from dying; and it stands as a warning, telling us how life may be sacrificed.

Hence the necessity for comprehending clearly how and why prisoners die, and how destructive disease invades or originates in a prison community.

This table teaches that large bodies of men may be kept together for years in a perfect state of health, the death-rates falling to a wonderful minimum. But between these very ratios are too often interposed others, which record disasters in which 10, 20 or 30 per cent. of the prison population has been swept away. At one time it is cholera that causes these terrible results, although of late years this cause of mortality has greatly diminished. At another time it is contagious fever; erysipelas, sloughing ulcers, contagious sore-throat, and pneumonic typhus come forward in single jails or in a group of jails by the interchange of prisoners; and evil endemic causes may bring about effects almost as bad, in the shape of asthenic dysentery and general cachexy.

We may congratulate ourselves on general improvement in the health of the prisoners. But it is useless to ignore the fact that, in former years, in many individual jails an excellent sanitary condition was maintained for a long series of years—a state of matters disturbed in the end by some unexpected catastrophe. And these calamities are not of the past; they are certain to recur in the future. And the mortality attending the attack will be as great as in the past, unless the danger to be met is known and anticipated. The deceitful diseases of the typhus group are diseases of the healthiest provinces, the healthiest years, the healthiest months, and the healthiest jails. Too often while the enquiry is going on as to the possible effect of local insanitary conditions or deficiencies in diet, presumed to be answerable for the appearance of unusual disease, the otherwise healthy community is being stricken down by contagion, and the result is a general infection of the prison community. And in these outbreaks it is not the weakly and debilitated in particular who fall. The strongest succumb, and those who by reason of their strength may the longer have withstood the poison, are in many cases subjected to the more deadly attack.

Large Jails of Upper India.

Statement showing the Fluctuation of the Death-rate in the Years from 1859 to 1876.

		1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
Rawal pindi.	Strength	720	700	754	764	682	763	852	898	869	1,213	943	942	806	1,025	963	835	837	807
	Deaths	29	22	12	46	90	58	11	12	27	36	116	67	57	14	134	71	25	6
	Ratio per 1,000	40·28	31·43	15·92	60·21	131·96	76·02	12·91	13·36	31·07	29·68	123·01	71·13	70·72	13·66	139·15	85·03	29·87	7·43
	Remarks	...	...	...	...	...	Contagious Fever, continued from 1863.	...	...	...	...	Contagious Fever, October 1868 to June 1869.	Pneumonia, Erysipelas and Fever.	Contagious Fever, January to May.	...	Contagious Fever, Sore throat, and Erysipelas.	End of Epidemic.	...	...
Mooltan	Strength	447	328	682	880	715	653	925	773	660	691	751	729	729	785	740	735	721	668
	Deaths	4	6	6	14	23	73	7	20	10	8	14	48	18	16	18	17	32	24
	Ratio per 1,000	8·95	18·29	8·80	15·91	32·17	111·79	7·57	25·87	15·15	11·58	18·64	65·84	24·69	20·38	24·32	22·52	44·38	35·93
	Remarks	...	...	...	...	...	Contagious Fever.	...	...	...	...	...	Pneumonia.	...	...	...	...	...	...
Amritsar	Strength	408	573	687	585	537	554	535	675	571	535	583	537	641	656	701	662	401	371
	Deaths	15	7	39	12	15	77	36	10	32	6	31	13	9	71	39	21	19	33
	Ratio per 1,000	36·76	18·77	56·77	20·51	27·93	138·99	67·29	14·82	56·04	11·21	53·17	24·21	14·04	108·23	55·63	31·72	47·38	88·95
	Remarks	...	...	...	...	...	Contagious Fever.	End of Epidemic of 1864.	...	...	...	...	...	...	Contagious Fever.	End of Epidemic.	Pneumonia and Erysipelas.	...	...
Lahore	Strength	1,616	1,567	2,101	2,109	2,027	1,644	1,964	1,883	1,917	1,849	2,089	2,190	2,456	2,344	2,224	2,393	2,203	2,048
	Deaths	32	35	67	107	282	182	90	19	22	27	57	92	37	122	167	127	130	95
	Ratio per 1,000	19·80	22·34	31·89	50·74	139·12	110·71	45·82	10·09	11·48	14·59	27·29	42·01	15·07	52·05	75·09	53·07	59·01	46·39
	Remarks	...	...	...	Cholera (41 cases).	Contagious Fever.	Contagious Fever.	Contagious Fever, January to June.	...	...	...	...	...	...	Cholera, 22 deaths.	Erysipelas, Diphtheria, Pneumonia.	Erysipelas, Diphtheria, Pneumonia.	Cholera	...
Umballa	Strength	594	561	704	539	852	866	446	496	487	603	669	705	712	670	762	697	689	751
	Deaths	4	10	244	110	42	266	18	47	7	6	10	17	25	25	16	14	13	36
	Ratio per 1,000	6·73	17·83	6·59	204·08	49·30	307·16	40·36	94·76	14·37	9·95	14·95	24·11	35·11	37·31	21·00	20·09	18·87	47·94
	Remarks	...	...	Contagious Fever.	Contagious Fever.	...	Contagious Fever.	...	Contagious Fever.	...	...	...	...	...	...	...	...	...	...
Peshawar.	Strength	421	388	451	371	355	308	358	417	406	423	411	496	520	620	583	542	578	535
	Deaths	46	40	50	58	29	9	60	8	50	3	25	26	16	38	72	17	9	4
	Ratio per 1,000	109·26	103·09	110·86	156·33	81·69	29·22	167·60	19·18	123·15	7·09	60·83	52·42	30·77	61·11	135·69	31·37	15·57	7·48
	Remarks	...	...	...	23 Cholera	...	...	Contagious Fever.	...	Contagious Fever.	...	13 Cholera	...	...	Beginning of Epidemic.	Erysipelas, Sore throat, Contagious Fever.	...	...	...

AGRA	Strength	1,911	1,890	2,494	2,209	2,158	1,993	1,830	1,787	1,826	1,802	1,839	1,685	1,334	1,339	1,857	2,292	2,357	2,226
	Deaths	147	560	186	118	232	358	65	34	34	35	37	30	19	22	52	61	56	49
	Ratio per 1,000	76·92	296·30	74·58	53·42	107·01	179·63	35·52	19·02	18·62	19·42	20·12	17·80	14·24	16·43	28·00	26·61	23·76	22·01
	Remarks	Beginning of Epidemic.	Cholera 173, Contagious Fever.	Cholera, 67	Contagious Fever.	Contagious Fever continued.	Contagious Fever continued.	20, Cholera	...	...	...	...	...	...	...	...	...	...	...
MEERUT	Strength	1,413	2,096	2,189	1,342	1,383	1,415	1,242	1,275	1,277	1,103	1,257	1,330	989	877	1,003	1,223	1,221	1,228
	Deaths	221	448	1,187	146	53	52	24	29	38	27	66	135	153	104	77	157	66	123
	Ratio per 1,000	156·40	213·74	542·26	168·79	38·32	36·75	19·32	22·75	29·76	24·48	52·51	101·50	154·70	118·59	76·77	128·37	54·05	100·16
	Remarks	Beginning of Epidemic Fever.	Contagious Fever.	Cholera 288, Contagious Fever, Famine.	Contagious Fever.	...	...	...	...	...	...	Dysentery of November and December.	Dysentery of November and December.	Dysentery, September to December.	Dysentery, September to December.	Dysentery, September to December.	Dysentery, September to December.	...	Dysentery, September to December.
BAREILLY	Strength	567	690	1,171	1,768	1,323	1,449	1,697	1,515	1,342	1,175	1,893	1,340	1,054	975	1,229	1,602	1,628	1,527
	Deaths	34	72	52	344	165	19	95	51	29	17	50	77	49	54	108	79	87	31
	Ratio per 1,000	59·96	104·35	44·41	194·57	124·72	13·11	55·98	33·66	21·61	14·47	26·41	57·46	46·49	55·38	87·88	49·31	53·44	20·20
	Remarks	...	...	...	Contagious Fever.	End of outbreak.	...	Contagious Fever.	End of outbreak.	...	...	...	...	...	...	Dysentery towards close of year.	Dysentery towards close of year.	...	...
NAGPORE	Strength	490	557	572	574	446	559	790	885	930	913	820	781	837	709	761	850	791	802
	Deaths	24	31	32	26	55	32	173	58	43	36	26	43	19	19	17	20	19	26
	Ratio per 1,000	48·98	55·65	55·94	45·30	123·32	57·25	218·99	65·54	46·24	39·43	31·71	55·06	22·70	26·80	22·34	23·53	24·02	32·42
	Remarks	...	15 deaths from Cholera.	...	...	8 Cholera deaths.	9 Cholera deaths.	54 Cholera Contagious Fever.	End of outbreak.	...	...	...	...	...	...	...	...	...	...
FUTTEHGHUR.	Strength	278	410	482	520	464	404	432	415	354	499	821	818	709	878	958	1,163	1,265	1,167
	Deaths	19	17	38	5	21	64	None.	3	2	4	13	16	10	22	23	13	11	11
	Ratio per 1,000	68·35	41·46	78·84	9·61	45·26	158·42	...	7·23	5·65	8·02	15·83	19·56	14·10	22·78	24·01	11·18	8·70	9·43
	Remarks	...	...	22 deaths from Cholera.	...	...	Contagious Fever.	...	...	...	...	...	...	...	...	...	...	...	...
LUCKNOW	Strength	469	663	739	882	1,981	2,550	2,619	2,619	1,765	1,698	1,715	1,735	1,708	1,687	1,762	1,766	1,732	1,733
	Deaths	94	237	82	90	392	299	466	285	45	16	33	52	60	55	39	27	14	17
	Ratio per 1,000	200·43	357·47	106·63	102·04	197·88	113·33	177·93	108·82	25·50	9·42	19·24	29·97	35·13	32·60	22·13	15·29	8·08	9·81
	Remarks	...	Contagious Fever.	...	...	153 deaths from Cholera.	239 deaths from Dysentery.	295 Dysentery.	Contagious Fever.	...	...	...	...	...	...	...	...	...	...
ALLAHABAD.	Strength	1,459	1,595	1,739	1,979	2,233	2,192	2,346	2,403	1,985	1,848	1,833	1,717	1,443	1,721	2,081	2,148	2,451	2,264
	Deaths	204	264	105	53	68	87	57	78	55	36	57	133	35	51	73	51	14	29
	Ratio per 1,000	139·82	165·52	60·69	26·78	30·45	39·69	24·29	32·46	27·71	19·48	31·10	77·46	24·26	29·63	35·08	23·74	5·71	12·27
	Remarks	49, Cholera: 105, Dysentery.	Contagious Fever.	26, Cholera	...	...	28 Cholera	...	Contagious Fever.	14 Cholera	...	...	83 Dysentery, or Contagious cachexy.	...	...	34 deaths from Sloughing Ulcers.	...	...	...
BENARES	Strength	1,104	1,176	1,397	1,717	1,412	1,306	1,193	1,170	1,240	961	1,157	1,286	1,118	1,266	1,501	1,757	1,895	1,845
	Deaths	114	118	125	153	160	102	47	33	37	48	31	24	50	53	64	45	35	35
	Ratio per 1,000	103·26	100·34	89·48	89·11	114·02	98·10	39·40	28·21	29·84	49·95	26·79	18·66	44·72	41·86	42·64	25·61	18·47	18·97
	Remarks	...	19 Cholera deaths.	...	...	44 Cholera deaths.	26 Cholera deaths.	...	...	...	...	...	...	...	...	...	...	...	...

CHAPTER II.

THE DIFFERENT ASPECTS IN WHICH DESTRUCTIVE DISEASE IN JAILS SHOWS ITSELF.

No record of contagious fevers in the jails of Bengal Proper. This is evident from the fever statistics.

In the jails of Bengal Proper typhus is unknown, as far as is shown in the history of these 15 years. In the spring of 1860, when gangs were removed from the jails of the Upper Provinces where this fever was in progress, for transportation to the Andamans, the disease was introduced into the Alipore jail, and 28 deaths resulted. Beyond this there is no record of typhus in the province. Looking at the statistics of fever-deaths the fact is apparent. Out of a body steadily averaging from 18,000 to 19,000, the largest number of fever-deaths in any year has been 99; the minimum has been 54, and the average 77, taken over the period of 18 years. Out of 23,394 deaths, 1,379 only were attributed to fever. Taking the figures over all these years, I find, with the exception above noticed, that one jail only has ever shown above 10 fever-deaths in any annual return; and this showed 12. On five occasions, 10 deaths from fever have been returned; but the general fever mortality is made up of units from every jail of the Province.

The limited fluctuation in the number of deaths from fever in Bengal Proper is shown by these actuals; the maximum of 99 deaths in 1860 includes the 28 deaths in Alipore jail due to the importation of contagious fever.

Number of Fever-Deaths in the Jails of Bengal Proper, 1859—76.

1873 . . 54	1867 . . 71	1865 . . 89
1876 . . 55	1863 . . 75	1875 . . 92
1868 . . 56	1872 . . 76	1862 . . 93
1871 . . 58	1861 . . 81	1859 . . 95
1870 . . 59	1869 . . 81	1866 . . 95
1864 . . 62	1874 . . 88	1860 . . 99

If the endemic of Lower Bengal, so destructive in its effects throughout so many years of this period and now happily in abeyance, has increased the jail mortality, it is not in the shape of deadly fever that its effects have appeared.

Epidemic contagious diseases have contributed little to the general death-rates of this province.

Epidemic contagious diseases have contributed little to the general death-rate of this province; hence the extreme fluctuation in the death-ratio when taken over the series of years, observed in the jails of the Northern Provinces, is not found in Lower Bengal. The general mortality is high, and in many years far above the average. But when the ratio becomes excessive, the cause is to be sought either in the general condition of the prisoners or in the unhealthiness of special localities; or it may be found associated with the influences of special seasons, in which the epidemics to which the province is subject, or famine, prevail. Whether the cachexies resulting from these varying causes may spread through prison communities is a subject to be considered further on.

Jails of Bengal Proper, 1859—76.

Death-rate from all causes excluding cholera, to show that the ratios do not fluctuate on account of the presence of contagious epidemic disease.

1859—67	1864.	1865.	1867.	1862.	1863.	1861.	1866.	1859.	1860.
Died per 1,000 .	50	50	51	68	75	77	77	89	102

1868—76	1870	1871.	1873.	1869.	1875.	1868.	1872.	1876.	1874.
Died per 1,000 .	36	37	41	43	45	46	46	46	48

Illustration of what has been effected towards improving the health of prisoners in Lower Bengal: Monghyr jail as typical.

The reduction of the provincial death-rate from 71 to 44, the rates shown in the first and second halves of the 18-year period, indicates great advance even in this tract, which can never be expected to give the minimum of the better situated provinces. The reduction is sufficiently striking; but an illustration from the history of an individual jail, the jail at Monghyr (Table XXVII), will show the contrast in a still more impressive aspect. The illustration may stand as a model of what can be done to place a jail community beyond the reach of evil endemic and epidemic influences.

Mortality of the Jail at Monghyr contrasted in the two periods, 1859—67 and 1868—76.

Years.	Strength.	Cholera Deaths.	Total Mortality.	Death-rate per 1,000.	Years.	Strength.	Cholera Deaths.	Total Mortality.	Death-rate per 1,000.
1859 . .	444	18	64	144·1	1868 . .	354	...	11	31·1
1860 . .	401	19	67	167·1	1869 . .	356	...	14	39·3
1861 . .	288	8	46	159·7	1870 . .	323	1	7	21·7
1862 . .	269	14	49	182·2	1871 . .	279	1	8	28·7
1863 . .	380	39	171	450·0	1872 . .	299	...	9	30·1
1864 . .	362	...	16	44·2	1873 . .	374	...	10	26·7
1865 . .	378	6	21	55·6	1874 . .	375	...	11	29·3
1866 . .	468	6	38	81·2	1875 . .	380	14	22	57·9
1867 . .	394	8	25	63·4	1876 . .	383	...	6	15·7
	3,384	118	497	146·9		3,123	16	98	31·4

It is very interesting to see how, with the general improvement, cholera has ceased to appear annually in this jail,—a phenomenon parallel with that quoted in the cholera section of this report, as illustrating the extraordinary contrast in the cholera death-rate of the Central Jails of the North-Western Provinces in the periods 1859-67 and 1868-76.

The diminution shown in the death-rate is from 147 to 31 per 1,000. It is, however, necessary to qualify this statement as far as the ratio is affected by the deaths of 1863. A gang of prisoners, about 100 strong, was brought from Rungpore for change, and in order to relieve overcrowding. Twenty per cent. of the strength had died in the Rungpore Jail in 1862, and fatal disease had stricken down many of the survivors. The Civil Surgeon of Monghyr mentions, that of this gang scarcely any were alive at the end of 1863.

Bad jails of Northern and Eastern Bengal which always show a high death-ratio. Illustrations.

The Backergunge, Rungpore, and Dinagepore Jails are typical for unhealthy jails of Eastern Bengal.* These are jails specially liable to suffer in consequence of the geographical position which they occupy. They are essentially unhealthy jails. The Backergunge Jail has not failed in any one year to localise cholera when the cholera season has come round. In six years only out of the eighteen, the death-rate of the Backergunge Jail has been under 10 per cent. of the average strength; in the Rungpore Jail, also, in seven years only has the mortality been below the same rate of 10 per cent.; and in Dinagepore, a comparatively healthy jail of late years, in eight out of the eighteen years, a minimum of 9 per cent. was exceeded. Within the last nine years Backergunge has reduced the mortality from 149 to 101 per 1,000. Rungpore remains at 128 in both nine-year periods. Dinagepore shows in the late years a death-rate of 56, brought down from 122.

Here we have to deal with local and endemic conditions always at hand to take advantage of any weakness.

Forms which disease has assumed in these jails.

The following statement shows the form in which the endemic causes of disease manifest themselves. It may be taken as typical for the region of perennial moisture, where the ever-existing conditions tell slowly and surely on the constitution, and with very little variation in intensity from month to month.

In the ten years 1867—76, 977 prisoners died in the Backergunge and Rungpore Jails. From cholera 114 died, and 9 deaths from violence occurred. The 854 deaths remaining were made up thus—dysentery, 469; phthisis, 100; fevers, 71; dropsy, 64; respiratory diseases, 44; atrophy, 37; spleen disease, 19; apoplexy, 7; heart disease, 6; hepatitis, 4; scurvy, 1; and all other causes, 32. In the 1,000, these causes of mortality were proportioned thus:—

Dysentery and Diarrhœa.	Phthisis.	Fevers.	Dropsy.	Respiratory Diseases.	Atrophy.	Spleen Disease.	All other Causes.
549	117	83	75	52	43	22	59 = 1,000

Dr. Herbert Baillie, then in charge of the Alipore Jail, gives in his report for 1858, the following very vivid description of the method in which cachectic prisoners die in the jails of Lower Bengal. It thoroughly illustrates the figures of the preceding table. He writes:

"Most of those who died laboured not under one, but a complication of diseases, arising from a cachectic state of the system. A prisoner is relieved of an attack of dyspepsia and is sent back to jail. After a while, he returns to hospital with diarrhœa or dysentery. His aspect has much altered in the interval. Anasarca of the extremities and perhaps swelling of the face, is observed. After a few weeks, serous effusion into the peritoneum occurs; the diarrhœa or dysenteric affection is relieved, but an attack of bronchitis or pleurisy or perhaps pneumonia, sets in. This has to be combated, the dropsical tendency all the while increasing. The kidneys then are possibly found affected, and at last the poor wretch dies completely worn out. After death, if not detected during life, tubercles or even tubercular cavities are often found, which have served to hasten the termination of the case. Such was the progress in many of the fatal cases recorded."

* See Tables XXIV and XXVI.

Mortality of Jails in Eastern Bengal, to illustrate the high rates due to the influences endemic in the locality.

Year.	Backergunge.				Rungpore.				Dinagepore.			
	Strength.	Cholera deaths.	Total mortality.	Death-rate per 1,000.	Strength.	Cholera deaths.	Total mortality.	Death-rate per 1,000.	Strength.	Cholera deaths.	Total mortality.	Death-rate per 1,000.
1859	459	22	64	139·4	360	9	74	205·6	730	7	117	160·3
1860	404	12	63	155·9	300	2	38	126·7	458	17	93	203·1
1861	293	8	30	102·4	293	1	29	99·0	369	1	21	56·9
1862	447	8	83	185·9	459	...	92	200·4	480	...	33	68·7
1863	570	51	147	257·9	402	...	43	107·0	497	...	58	116·7
1864	495	17	97	196·0	323	1	28	86·7	462	37	78	168·8
1865	407	1	18	44·2	355	...	33	93·0	443	2	42	94·8
1866	380	5	38	100·0	369	3	35	94·8	391	1	36	91·8
1867	434	5	40	92·2	364	...	41	112·6	403	1	38	94·3
1868	522	19	52	99·6	399	...	65	162·9	402	1	48	119·4
1869	527	19	62	117·6	391	20	64	163·9	408	1	32	78·4
1870	393	3	36	91·6	285	...	35	122·8	348	...	24	69·0
1871	443	3	30	67·7	275	...	18	65·5	349	...	21	60·1
1872	597	10	77	129·0	251	...	9	35·9	387	...	14	36·2
1873	598	6	39	65·2	402	...	31	77·1	503	...	15	29·8
1874	481	5	39	81·1	496	2	80	161·3	596	...	32	53·7
1875	340	6	41	120·6	486	1	60	123·5	522	...	18	34·5
1876	453	15	64	141·3	537	...	94	175·1	638	2	27	42·3
1859—76	8,243	215	1,020	123·7	6,747	16	869	128·8	8,386	70	747	89·1
1859—67	3,889	129	580	149·1	3,225	23	413	128·1	4,233	66	516	121·9
1868—76	4,354	86	440	101·1	3,522	39	456	129·5	4,153	4	231	55·6

How prisoners die in the Gangetic Provinces. The Benares Central Jail as a typical example.

I have chosen the Benares Jail (Table XXXIII), as typical for the jails of the Gangetic Provinces. This jail has reduced its death-rate from 76 to 30.

The proportion which the different causes of mortality bore to the total in the two periods is shown below:

	Dysentery and Diarrhœa.	Respiratory Diseases.	Fevers.	Phthisis.	Atrophy and Spleen Disease.	Apoplexy.	Hepatitis.	Heart Disease.	All others.
1859—67	59·5	7·1	6·3	5·7	5·4	3·4	·6	·1	11·9=100
1868—76	58·2	4·5	10·9	11·2	5·9	1·9	·2	·5	6·7=100

Here, as before, 75 per cent. of the whole mortality is made up of dysentery and diarrhœa, atrophy, spleen disease, dropsy and phthisis.

Deaths and Death-rates of the Benares Central Jail, 18 Years, 1859—76.

Year.	Strength.	Causes of Deaths.											Total Deaths.	Death-rate per 1,000.		
		Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy, Atrophy and Spleen Disease.	All other Causes.		Cholera.	All other Causes.	All Causes.
1859	1,104	3	...	4	4	76	2	2	...	6	7	10	114	2·72	100·54	103·26
1860	1,176	19	...	5	5	60	...	9	...	7	4	9	118	16·16	84·18	100·34
1861	1,397	...	...	1	5	83	...	17	...	...	11	8	125	...	89·48	89·48
1862	1,717	1	...	6	6	106	1	7	...	...	6	20	153	·58	88·53	89·11
1863	1,412	44	...	5	...	70	...	12	...	7	2	20	160	31·16	82·86	114·02
1864	1,306	26	1	...	2	33	...	6	...	19	2	13	102	19·91	78·19	98·10
1865	1,193	1	...	8	3	19	1	...	...	2	6	7	47	·84	38·56	39·40
1866	1,170	...	...	11	2	10	...	1	1	1	3	4	33	...	28·21	28·21
1867	1,240	...	...	10	...	15	1	2	...	3	2	4	37	...	29·84	29·84
1868	961	1	...	10	...	30	...	...	...	2	1	4	48	1·04	48·91	49·95
1869	1,157	...	3	8	1	12	1	1	...	3	1	1	31	...	26·79	26·79
1870	1,286	...	...	3	...	10	...	2	1	6	2	...	24	..	18·66	18·66
1871	1,118	...	...	1	...	36	...	4	...	4	1	4	50	...	44·72	44·72
1872	1,266	5	...	1	...	25	...	...	...	10	9	8	53	3·95	37·91	41·86
1873	1,501	...	...	2	1	48	...	2	...	7	...	4	64	...	42·64	42·64
1874	1,757	...	...	3	...	27	...	6	...	5	2	2	45	...	25·61	25·61
1875	1,895	...	...	12	3	9	...	2	...	1	4	4	35	...	18·47	18·47
1876	1,845	...	...	1	2	22	...	...	1	4	2	3	35	...	18·97	18·97
1859—76	24,501	100	4	91	34	691	6	73	3	87	65	120	1274	4·08	47·91	52·00
1859—67	11,715	94	1	50	27	472	1	56	1	45	43	95	889	8·02	67·87	75·89
1868—76	12,786	6	3	41	7	219	5	17	2	42	22	25	385	·47	29·64	30·11

Exceptional mortality: epidemic of the Benares jails of 1855. Its nature and natural alliances.

I have selected the Benares jail for another reason. In the three months—August, September and October 1855, 230 prisoners died in this jail and in the jail at Azimghur. No such mortality had been known previously, for the records of the previous 25 years were carefully inspected with a view to ascertain if any such sickness had ever before occurred.

The rainy season of 1855 was very unhealthy in the valley of the Ganges; malarious fever was universal, and the cholera which became the great epidemic of 1856 over all India, was in progress from the east. The military hospitals were filled with fever patients up to the end of the year, and many for whom there was no hospital accommodation were treated in barracks.* Still, experience tells us that in such a season the prison population, when well cared for, suffer less than the free community. The usual exemption did not hold good in the case of these jails; and hence the condition of the prisoners was looked to for an explanation of this exceptional sickness.

Ghazeepore, the adjoining jail on the east, was associated in all its general conditions with the Benares and Azimghur jails. This jail has been almost invariably a healthy jail (See Table XLII); and in 1855 it threw off the threatened epidemic, and escaped with 20 deaths. Dr. Lyell† early noticed that the prisoners were running down in health, and, on 13th August, he writes to the Magistrate in these terms: "I deem it my duty to urge on you the necessity for at once taking steps to improve the general health before it be too late. The consequences may be serious. The prisoners mostly present an emaciated, debilitated appearance, and about a fourth of them declare to me that they suffer under night blindness."

The appearance of scurvy was looked for, but it did not appear until late in November. On 30th November, addressing the Superintending Surgeon, Dr. Lyell writes:

"The presumed existence of a scorbutic taint among the prisoners has received ample confirmation within the last few days. There are now 20 men labouring under one or more of the symptoms of scurvy."

This was the shadow; the substantial results were shown in the other two jails.

The Superintending Surgeon says, that as early as June, before the unhealthy season set in, he was struck with the altered appearance of the prisoners; and the outbreak he attributed to the fact of the new dietary, established shortly before, breaking down under the strain of this extraordinarily sickly season.

The Civil Surgeon of Benares, writing in October, says, that, from July onwards, two or three prisoners have died daily. Diarrhœa was the most fatal form in which the epidemic showed itself. It commenced with a scorbutic state of the gums in almost every case; but the remedies for scurvy were used throughout without any benefit whatever. Change of air was also tried, but without giving any relief. The food was entirely changed. But every endeavour to stop the epidemic signally failed, although the civil authorities were most cordial in assisting in every way, and allowing every indulgence asked for.

He writes: "There is no doubt that the fatal diarrhœa was from the very first, an indication of a scorbutic condition. Lime juice and native sherbets were given in large quantities; but they did good for a short time only, and then seemed to lose all their virtue. I gave also large quantities of the vegetable acids, but very little good followed."

The Superintending Surgeon mentions that in many cases ulceration of the cornea and collapse of the eyeball occurred.

The Civil Surgeon of Azimghur enters more into detail. He says:

"On taking over charge in the end of August, I found the convicts depressed and very sickly. Rapid exhaustion was a striking feature in nearly every case. The fever cases were long in rallying, and the dysenteric cases wore the appearance of cholera, with cold extremities and rapid collapse.

"In September mortification of the limbs began to make its appearance. All the sores wore a sloughing aspect, and the healthier sores were indolent and hard-edged, as if absorption of foul deposit had quite taken the place of nutrition in the vascular tissue. Out of 26 dysenteric cases 14 died, nearly all in the chronic stage; and many after disorganisation of the cornea, and sloughing of its contents.

"In October, the state of matters was still worse: the ulcers mortified; the rheumatic cases were nearly all of the scorbutic type; and 17 cases of chronic dysentery proved fatal. There was hardly any attempt at reaction. Sores spread, the gums rotted, and medicine appeared not to have the least effect."

He adds: "I have not found pulmonary affections in any appreciable proportion. But it is not the variety of disease that arrests attention. Be the disease dysentery, chronic ophthalmia, foul ulcer, lung hepatisation or rheumatism, the jail type appears through all—a scorbutic disintegration of the tissues, an organic blood disease of which the above may be regarded as symptomatic."

Such statistics and statements as these impress the conviction that mere community in the case of an insufficient dietary, with generally prevailing causes of sickness superadded, will not account altogether for sickness so exceptional. The aspect here exhibited teaches that a blood disease, when it has reached this stage, multiplies in a community by contagion, and that measures which are not directed against such an outbreak on the assumption that a contagious disease is to be met, must fail,—as they failed in the case of these jails. In the course of these

* Twenty per cent. of daily sick is shown in our returns as maintained from September to the end of the year, but this represents only the number treated in hospital.

† The same medical officer who wrote the account of the relapsing fever in Ensufzaie in 1852-53.

47 years there have been many sickly seasons in Benares, and if this record of sickness is applicable to one year only of this long period, then a special agency in promoting the epidemic must be looked for.

The special agency was the contagion conveyed from man to man; a contagion developed in the prison community from the causes assigned, and when originated, propagating itself in the forms observed. The alliance of such a disease is not with typhus; and it occurred at a season when typhus is in abeyance. It is related in its nature to hospital gangrene; and like hospital gangrene it spreads by association.

While this contagious cachexy was not a typhus, the same train of symptoms may be manifested in connection with a contagious fever allied to typhus.

Contagious fever of 1855 on the North-Western Frontier.

On the North-Western Frontier, and in no way epidemically related to the sickness of these jails, an outbreak in many respects similar was going on simultaneously. The Civil Surgeon of Dera Ghazee Khan sums up the effects in a single sentence: "The type has always been low, no matter what may have been the class of the disease; and certain forms of disease recognisable by the professional mind as peculiarly typical of a low and depressed state of the constitutional powers, have more than usually prevailed. These diseases are ulceration and sloughing of the cornea, night blindness, amaurosis from debility, latent pneumonia, and unhealthy inflammation and ulceration of the cellular tissue."

This jail had 176 cases of fever and 32 deaths. All but 13 of the fever cases were of a low typhoid type. In Dera Ismail Khan Jail 34 cases proved fatal out of 165 admitted; and the Civil Surgeon and four Native Doctors passed through the fever, which was virulently contagious.

I place these cases of the Gangetic Valley and Punjab Frontier together, to show the association of contagious fever with the same train of general symptoms.

But I do not adduce the latter example as implying that the contagious fever was set up purely as a consequence of pre-existing conditions. The question involved will be taken up further on.

Jail at Lucknow shown in two aspects, as one of the most unhealthy, and subsequently one of the most healthy, jails of India.

Contagious fevers of 1860 and 1866.

For Oudh I have selected the Lucknow Central Jail as typical (Table XXXIX). It is a most interesting illustration, showing what may be accomplished in keeping large bodies of prisoners free from fatal disease. The highest death-rate reached in the last 10 years has been 35, the lowest 8 per 1,000, and the average 21. In the 8 years, from 1859 to 1866 the minimum death-rate was 102, the highest 357, and the average 155. Twice this jail has localised contagious fever. It suffered along with many others of the jails of the North-West in 1860; and again the fever appeared towards the end of 1865. The parallelism in season and development between these two outbreaks was striking:—

Deaths from Contagious Fevers,—Lucknow Jail, 1859-60 and 1865-66.

	Oct.	Nov.	Dec.	Jan.	Feb.	March.	Apl.	May.	June.
November 1859		3	10	25	19	35	39	18	3
,, 1865		3	5	16	65	79	60	4	...

Early in 1866, I noted that deaths were being returned under the head of jaundice and fever, fatal in about five days. I judged that the leaven of a typhus epidemic had been introduced, and the fact was brought to the notice of the Chief Commissioner. But in the meantime the epidemic was rapidly making way; and notwithstanding the immediate adoption of most energetic measures, 240 prisoners died before the conflagration was stamped out. This, however, is to be noted, that in three months this jail showed as low a sick-rate as any jail in India; and never since has there been the slightest attempt at any extraordinary increase of mortality. For three years before this outbreak, the prisoners had died at the rate of a man every day; in the succeeding ten years only 358 prisoners died in all. Six hundred and fourteen prisoners died from fever from 1859 to 1866, and 14 in the last ten years; from dysentery 895 deaths occurred in the first eight years, and 130 in the ten years from 1867 to 1876.

Mortality in the Lucknow Jail, 1859—76.

Year.	Strength.	Causes of Death.							Total Deaths.	Death-rate per 1,000.	
		Cholera.	Fevers.	Dysentery.	Respiratory diseases.	Phthisis Pulmonalis.	Dropsy, Atrophy and Spleen Disease.	All other Causes.		Cholera.	All Causes.
1859	469	7	29	23	1	...	14	20	94	...	200·43
1860	663	4	156	45	...	1	5	26	237	...	357·47
1861	739	6	33	27	1	...	5	11	82	...	106·63
1862	882	...	23	55	2	...	4	6	90	...	102·04
1863	1,981	153	27	175	12	1	2	22	392	...	197·88
1864	2,550	...	30	239	6	1	2	21	299	...	113·33
1865	2,619	...	83	295	4	2	62	20	466	...	177·93
1866	2,619	...	233	36	...	...	7	9	285	...	108·82
1867	1,765	1	7	19	2	7	2	7	45	...	25·50
1868	1,698	...	...	6	2	5	...	3	16	...	9·42
1869	1,715	2	...	9	3	10	1	8	33	...	19·24
1870	1,735	...	4	21	2	12	9	4	52	...	29·97
1871	1,708	...	...	17	...	21	12	10	60	...	35·13
1872	1,687	...	1	31	3	8	9	3	55	...	32·60
1873	1,762	...	1	9	2	7	7	13	39	...	22·13
1874	1,766	...	1	11	...	3	5	7	27	...	15·29
1875	1,732	...	...	1	2	7	...	4	14	...	8·08
1876	1,733	...	...	6	1	4	4	2	17	...	9·81
1859—66	1,565	170	614	895	25	5	101	135	1,945	13·58	155·33
1867—76	1,730	3	14	130	17	84	49	61	358	·17	20·69

Mortality in the Allahabad Jail, 1859—76.

Year.	Strength.	Causes of Death.							Total Deaths.	Died per 1,000 of Strength.
		Cholera.	Fevers.	Dysentery.	Respiratory Diseases.	Phthisis.	Dropsy, Atrophy and Spleen Disease.	All other Causes.		
1859	1,459	49	6	105	18	13	6	7	204	140
1860	1,595	9	119	93	7	7	14	15	264	166
1861	1,730	26	9	42	3	4	10	11	105	61
1862	1,979	1	3	30	4	4	7	4	53	27
1863	2,233	5	7	26	9	2	5	14	68	30
1864	2,192	28	6	28	5	4	4	12	87	40
1865	2,346	2	10	27	2	1	1	14	57	24
1866	2,403	...	37	27	3	...	5	6	78	32
1867	1,985	14	1	25	3	5	3	5	55	28
1868	1,848	2	4	13	3	5	5	4	36	19
1869	1,833	...	5	23	7	5	2	15	57	31
1870	1,717	...	16	83	6	2	12	14	133	77
1871	1,443	...	3	14	11	1	...	6	35	24
1872	1,721	...	1	22	8	3	4	13	51	30
1873	2,081	...	1	19	12	4	1	36	73	35
1874	2,148	...	1	22	8	3	4	13	51	24
1875	2,451	...	...	4	6	...	1	3	14	6
1876	2,364	...	1	6	6	2	2	12	29	12

Allahabad Jail illustrates the absence of cholera of late years; and shows a long series of healthy seasons interrupted by outbreaks of contagious fever, contagious dysentery and contagious sloughing ulcers.

Allahabad Central Jail affords an example of mortality generally kept within limits by efficient sanitation, but interrupted occasionally by high ratios due to severe outbreaks of contagious disease. Not a single death from cholera has occurred in the past eight years, out of a strength of 2,000 prisoners; and although in the ten years preceding, cholera was actually absent in one year only, no very severe outbreak has appeared since 1859, the year in which the European garrison suffered so much.

Four special outbreaks require notice: two of contagious fever, one of sloughing ulcer, and the fourth of dysenteric disease.

The fever of 1859-60 caused 109 deaths, and the outbreak of 1866, 34 deaths, distributed thus:—

	January.	February.	March.	April.	May.	June.	July.	August.
1860 . .	5	11	37	44	10	2	...	...
1866 . .	...	2	6	14	5	5	2	...

The dysenteric outbreak of 1870 was also a spring epidemic, culminating in April and running as under:—

January.	February.	March.	April.	May.	June.	July.	August.	September.
12	12	13	30	13	12	10	5	...

These deaths of 1870 were returned as dysentery, fever, or atrophy—82 dysentery or diarrhœa, 14 fevers, and 11 atrophy. The mortality was attributed to a change in the grain supplied to the prisoners. But the medical officer remarks, that many of the prisoners who died came from the famine tract of 1869, south of the Jumna. The aspect of these deaths suggests the presence of a typhus in some form, probably brought in from the famine districts; for I know of no instance of an outbreak of dysentery in jails culminating in the healthiest month of the year, and dying out at the season when dysentery is due to appear. I need only refer the reader back to the table in the preceding chapter showing the relation to season of the dysentery of the Meerut Jail, where the fact is illustrated that out of the enormous mortality from dysentery in the ten years, 7 per cent. only occurred in the first six months of the year.

Out of 62 deaths returned under "All other Causes" in 1872, 1873 and 1874, 50 were caused by sloughing ulcers; and 16 deaths from the same cause occurred among men sent for change to Futtehpore. This persistence tells of the extreme difficulty of getting rid of this contagious disease when once it has established itself in a community, and of the necessity for the absolute and early segregation of such cases.

Mortality of the Meerut Jail, 1859—76.

Year.	Average Strength.	Causes of Deaths.							Total Deaths.	Died per 1,000 of Average Strength.
		Cholera.	Fevers.	Dysentery.	Respiratory Diseases.	Phthisis.	Dropsy, Atrophy and Spleen Diseases.	All other Causes.		
1859 . . .	1,413	...	33	103	7	...	71	7	221	156
1860 . . .	2,096	...	220	128	20	...	61	19	448	214
1861 . . .	2,189	288	429	343	10	...	71	46	1,187	542
1862 . . .	1,342	...	61	65	...	2	8	10	146	109
1863 . . .	1,383	...	7	32	4	6	...	4	53	38
1864 . . .	1,415	...	12	14	7	1	1	17	52	37
1865 . . .	1,242	...	2	12	3	2	4	1	24	19
1866 . . .	1,275	...	...	9	2	4	4	10	29	23
1867 . . .	1,277	...	2	22	1	3	7	3	38	30
1868 . . .	1,103	...	3	9	4	3	4	4	27	24
1869 . . .	1,257	...	3	44	11	1	2	5	66	53
1870 . . .	1,330	...	8	82	15	5	14	11	135	102
1871 . . .	989	...	25	103	12	...	6	7	153	155
1872 . . .	877	10	6	63	14	...	10	1	104	119
1873 . . .	1,003	...	5	38	15	11	3	5	77	77
1874 . . .	1,223	...	17	85	23	10	10	12	157	128
1875 . . .	1,221	6	8	19	16	7	7	3	66	54
1876 . . .	1,228	..	7	74	29	2	7	4	123	100

Meerut Jail—showing the effects of contagious fever and famine, and of dysentery produced by endemic causes affecting the prisoners.

The Meerut Jail has passed through three phases in these 18 years. In the end of 1859, contagious fever broke out, which died out in June 1860, after cutting off 230 prisoners. Cholera, decay from famine, and contagious fever raged simultaneously in 1861, and nearly 1,200 prisoners died.

The disorganisation of the records caused by this great calamity renders it almost impossible to say how much of the mortality of 1861 was due to the different diseases. But the date at which the contagious fever ended in 1862 leaves no doubt as to the character of the fever that did prevail in 1861:—

	November.	December.	January.	February.	March.	April.	May.	June.
1859-60 . .	4	8	14	35	92	59	15	4
1861 . .	*	*	*	*	*	*	*	*

	January.	February.	March.	April.	May.	June.	July.	August.
1862 . .	71	48	18	15	14	5	1	...

For the seven years succeeding, Meerut was one of the healthiest jails of Upper India. Nothing during this period calls for notice.

The epidemic season of 1869, when malarious fevers were universal over Northern, Central and Western India, ushered in the third phase; and every year since, as soon as the rains set in, fever, with dysentery as a result, is lit up afresh, and a heavy mortality follows among the old and debilitated prisoners (see Table XXXVIII). The general unhealthy conditions have been common to Meerut and the adjoining districts of the North-Western Provinces in these years. Within the jail the state of matters is thus described :—

"The sub-soil is saturated with water; the level of the wells rises in the rains to within a foot or two of the surface, and even in January it is standing at five feet. Everything has been done that can be accomplished *locally* to improve drainage, and the result of the efforts to be made for the general improvement of the drainage outfalls of the whole country must be waited for. The fevers which are now devastating the Meerut and Bulandshahr districts are malarious, not typhoid or enteric. The description of the fever which has for years been so fatal at the Meerut Jail is thus given by the Superintendent. It is simple ague, tertian most commonly, and quartan during the later months of the year. The fever comes on and off, and in eight or ten days the patient gets quite well and leaves hospital. This goes on often for months; the patient keeps well for some days, is discharged from hospital, and seems to be getting strong, when suddenly he gets a shivering fit, and returns to hospital. After several attacks, dysentery usually supervenes, and the patient is carried off."

This was the condition of the population of the famine tract of 1861, from which much of the prison population was drawn. Mr. Cutcliffe describes the condition of those treated in the famine hospitals at Meerut in 1861 thus:

"The majority were skeletons from atrophy. This was not a hospital for sick only, but for starving people attacked by disease.

"But they were not only ill nourished and poor-blooded. They were also suffering from great nervous depression both before and after admission into hospital. From the first to the present time the great mental depression of the sick in hospital has been most remarkable; and many instances have occurred of men who refused to take food, on the plea that they did not desire to live, either because their villages had been in part deserted, and their families scattered, or that they had lost their children or nearest relations, or sustained in some way or other some severe trial, and had succumbed to despair. Many had wandered about the country after leaving their villages, and had been exposed to the vicissitudes of the climate, fainting under the heat of the sun by day, and shivering from the cold by night, from which indeed they were ill protected. Many people thus found were sent into hospital by the Police, and many in the last stages of disease arrived only to die. From the mortuary abstract of February we find that out of 162 deaths in that month, 60 only survived over the fourth day from admission. In March, 333 died within six days of admission, or about three-fourths of the whole deaths of this month."

This was the material among which the fever and cachexy of the Meerut Jail of 1861, was propagated. Identically the same history of disease and death is repeated in our statistics of 1877 of the Jails of the Famine tract in Madras.

Epidemics of Malarial fevers as affecting the health of the Jails of a Province.

Lahore Jail in 1856.

In all cases Famine over a province tells greatly on the jail mortality. So also secondarily does an epidemic of malaria, when the population has been generally and severely visited. But primarily the effects observed on those already imprisoned are trifling; and the observation has been very consistently made, that prisoners suffer less than the free population during a season when epidemic malaria is abroad. In the bad year 1856, when malaria and cholera were epidemic over Northern India, the Lahore Jails lost 454 prisoners out of 2,500; 244 by cholera, the remainder chiefly by disease originated by the epidemic malarious fever. Even in this case, the Inspector General of Jails in the Punjab remarks, regarding the excessive mortality, "The year under review has been marked by a great falling off as regards the health of the prisoners, not caused by any local circumstances connected with their incarceration in jail, but the result of one of those lamentable epidemics that, occurring in these provinces, claims for its victims thousands and tens of thousands. But although this excessive sickness and mortality is to be deplored, it is satisfactory to know that there was a much less proportion both of attacks and casualties among the prisoners than occurred in the towns and districts among the free community."

The great immunity of prisoners in malarious epidemics has been remarked on in nearly every epidemic year, for example, in 1850 and 1859; and yet there can be little doubt that such epidemics initiate a mortality that affects the jail population for years afterwards.

These examples may suffice to illustrate the effects of endemic causes of disease, and of epidemics introduced into, or developed in, the jails of Lower Bengal and of Upper India.

Epidemics of Northern India affecting the jail population, special in their characteristics.

The jails of the north of the Punjab show characteristics differing very materially from those of the jails of Upper India generally.

The geographical area chiefly affected by fevers of the typhus class.

The districts bordering on the great north-western desert are the endemic home of Indian typhus in its various forms,—Pahlunpore and Guzerat, Pali and Marwar, the districts lying west of Delhi, Ferozepore, Sirsa, and the Trans-Indus tract have all been ravaged by typhus in an epidemic form several times within the past 60 years. Going into the records from 1852 onwards, I find, from this year up to 1857, an uninterrupted history of typhus on the frontier, among the jails, troops and general population. The three years succeeding—1858, 1859 and 1860—were extremely healthy years, and in the two last the jail mortality throughout the Punjab fell to 23 per 1,000. But 1861 brought the epidemics of malaria and cholera, and

typhus was re-introduced from the jails of the North-Western Provinces; and although this last was limited to the eastern circle of jails, the jail mortality for the province rose to 82. From 1861 onwards to the present, perhaps not a single year has passed without the appearance of contagious fever in some shape. In the first years many jails suffered in common; but of late, two or three jails only have brought forward contagious disease in each year.

The alliance of certain respiratory diseases with erysipelas and diphtheria: Lahore Central Jail 1873-74.

I shall contrast the respiratory diseases of the Lahore Central Jail, dividing the 6 years 1869-74 into two periods. The object is to show the association of contagious disease occurring simultaneously with the increase in mortality observed in the two last years. In October and November 1873 erysipelas and diphtheria appeared; 106 cases, and 10 deaths occurred from erysipelas before the disease ceased in July 1874, and 154 cases and 22 deaths from diphtheria took place in the same months. Now, these very same diseases we find frequently associated with the prevalence of contagious fevers and typhoid pneumonia, either in jails or epidemic among the free population; and the simultaneous appearance and general association suggests the extreme probability that in some jail outbreaks the pneumonic disease which has so enormously increased of late is a manifestation of a contagion introduced from without.

In some instances I find that pneumonia and diphtheria were present in the same case; and in one case I observe that fatal erysipelas supervened on diphtheria. Nearly all these cases of diphtheria proved fatal within two days. The *post mortem* condition was the same in all, showing the throat and upper part of the larynx and trachea covered with a jelly-like white or ash-coloured exudation, while the lungs were in most cases free from actual disease.

Deaths from Respiratory Diseases, Lahore Jail.

	Strength.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1869 . .	2,089	...	...	1	...	...	...	...	2	...	3	2	3	11
1870 . .	2,190	7	6	...	1	...	...	1	...	...	1	1	3	20
1871 . .	2,456	6	...	1	...	...	1	1	...	1	...	3	1	14
1872 . .	2,344	...	2	2	...	1	...	1	...	...	...	1	10	17
	*		*		*		*		*		*		*	
1873 . .	2,224	19	10	7	2	3	...	...	1	5	5	11	17	80
1874 . .	2,393	17	5	5	1	3	2	1	2	2	3	7	10	58

The coincidence between the prevalence of this pneumonia and the contagious diseases, erysipelas and diphtheria, is thus shown :—

Admissions from Erysipelas.

	Oct.	Nov.	Dec.
1873 . .	2	6	36

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.
1874 . .	16	6	4	6	20	9	1	...

Admissions and Deaths from Diphtheria—admitted 159, died 22.

	Oct.	Nov.	Dec.
1873 . .	...	18-5	19-1

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1874 . .	26-8	27-2	13	5-1	36-3	8-2	2	1	2	1	1	...

Pneumonia of the Mooltan Jail.

The Civil Surgeon of Mooltan, describing the pneumonic outbreak of 1870 in his jail, says, he is certain that in some way it is communicated from the sick to the healthy.

The following case occurred during or immediately after the epidemic of pleuro-pneumonia. It was returned as a case of cerebro-spinal typhus.

"A strong, healthy-looking young man, aged 29, was admitted on 17th May with fever. Nothing unusual was observed in his case. On the morning of the 18th he was sitting up. His body was slightly hot, and the right wrist-joint was swollen and painful. At 11 A. M., he was attacked with very strong fever, and became rapidly comatose and died at 2 P. M."

"After death a large number of petechial spots were seen over the right arm and shoulder-joint, which were not observed during life."

Typhoid pneumonia of the Lahore Jail.

Dr. Lethbridge, speaking of the mortality in the Lahore Jail, states his view of the nature of the affection thus :—

"I have not had an opportunity of observing many cases of pleuro-pneumonia, but, judging from those that I have seen, I should say that it was a continued fever, having a general resemblance to typhus and typhoid fevers,—not so infectious perhaps, but running a more rapid course than either of them; this is probably due to the extreme prostration produced by the pneumonia. A first attack does not appear to afford a protection against a subsequent one. A sweeper employed in attending the sick was twice attacked with pleuro-pneumonia last year, and the second attack proved fatal. The premonitory fever is at first relieved by slight remissions; in the course of two or three days, pneumonia sets in, and the case now runs a most rapid course. Convalescence is sudden, especially when the lungs are not much affected. A case is seldom prolonged in its acute stage beyond the twelfth day. Recovery is sometimes

retarded by diarrhœa. Although no eruption has yet been discovered, yet there is decided desquamation of the cuticle in many cases during convalescence. Delirium is not a common symptom, but it often accompanies cases which die within two or three days after being attacked. A *post-mortem* examination almost invariably shows inflammation of one or both lungs; these are sometimes infiltrated with pus. Thick layers of lymph attach the surface of the lung to the walls of the chest. This white lymph on the surface of the lung is very characteristic in some cases. I have also noticed inflammation of Peyer's patches and small ulcers about the ascending colon in cases that have had diarrhœa as a prominent symptom. Death often takes place during recovery by the sudden plugging of some large vessel by cardiac emboli composed of whitish yellow lymph."

Erysipelas and diphtheria of the Peshawar Jail. Possibly related to the contagious fevers of the earlier months.

In the Peshawar Jail the very same diseases broke out in the same month. The Civil Surgeon of Peshawar appends to his monthly return for November 1873 the following:—"Idiopathic erysipelas and tonsillitis are common among the surrounding population; mild tonsillitis prevails in the jail, and erysipelas is more frequent than is desirable." On 23rd November, a case, returned as laryngitis, proved fatal in three hours; and in December four deaths occurred; tracheotomy, which was performed, giving no relief to the symptoms. Two deaths from erysipelas occurred in December, and four in January 1874. Contagious fever had been epidemic from January 1873, which died off in May after causing 34 deaths. Out of 11 deaths in 1873 returned under the head "All other Causes," 4 were caused by erysipelas, and 3 by hospital gangrene.

A third illustration. Jail at Rawalpindi. Association of typhus with erysipelas and diphtheria.

A third case is identical. The Rawalpindi Jail showed the same combination at the same time. On 27th October, the first death from laryngitis occurred, followed by 4 in November and 2 in December. In October and November, 35 admissions were caused by tonsillitis, 22 by laryngitis, and 31 by erysipelas. From erysipelas 7 deaths occurred. Now, from February to June, a continued typhus raged in this jail. It died at the usual date; and three months later a second epidemic of a contagious fever, of distinct clinical characteristics, made its appearance, along with the erysipelas and throat affection.

The typhus outbreak ran thus, the last death being caused by gangrene of the thigh as a sequel:—

1873 . .	January.	February.	March.	April.	May.	June.
Died . .	...	3	23	10	4	2

The second outbreak ran the following course:—

1873 . .	July.	August.	September.	October.	November.	December.
Died . .	...	1	1	13	17	17

1874 . .	January.	February.	March.	April.	May.	June.
Died . .	9	10	5	4	3	...

This is no chance combination of disease. I find, in my notes of 1865, a parallel in every way perfect:—

Association of typhus with typhoid erysipelas and diptheria among the general population in Northern India in 1865.

All along the Punjab frontier in the early months of 1865 typhus was reported. From Murdan Mr. Bellew writes that typhus is prevailing as an epidemic in many of the villages of the district, rapidly fatal in its tendency, and causing great mortality. Mr. Farrel mentions that a peculiar and fatal type of fever, distinctly contagious, is occurring in the neighbourhood of Rajanpore. In one village one-half of the inhabitants have suffered, and of those attacked one-half have died. In the Dera Ghazee Khan District, Mr. Courtney fears many have died from neglect and want of medical aid. Dr. Fairweather notes the prevalence of typhus in several villages in the neighbourhood of Dera Ismail Khan, although not general throughout the district. Mr. Neil reports relapsing typhus widely spread throughout the Ferozepore district, with a great tendency to death from acute adynamic dysentery.

But from Kohat, typhoid erysipelas, and not fever, is reported to be epidemic. Writing in May, Mr. Verchere says:—"Most slight wounds and ulcers have a tendency to inflame, and to become erysipelatous: the erysipelas is accompanied by a low continued fever. Several cases have occurred in the regiment, and one camp follower has died from extensive mortification of the thigh consequent upon erysipelas." Mr. Tandy, Civil Surgeon of Kohat, writes that there had been an epidemic of erysipelas since April, not confined to any locality, but attacking equally the inhabitants of the villages, town and cantonments. And so universal was it that he preferred excluding cases of injury from the dispensary, in place of taking special precautions to prevent its outbreak among the patients. This tendency to gangrene was not confined to Kohat, for Mr. Lyons states that, in March, nine cases which had been operated on in the Rawalpindi dispensary took on sloughing simultaneously, of which the greater number were lost. In his Sanitary Report for June, Mr. Verchere makes the statement that cases are occurring in the city of a disease which, from the accuracy of the description given by those who saw the cases, was evidently a form of diphtheria, and that the principal features were perfectly marked. The natives, he adds, say that it is a new disease, and one which has not been known in Kohat before.

Central Jail at Lahore—Deaths from 1859 to 1876.

Year.	Strength.	Causes of Deaths.												Total Deaths.	Died per 1,000.
		Cholera.	Fever.	Contagious Fever.	Apoplexy.	Dysentery.	Hepatitis.	Respiratory Diseases.	Heart Disease.	Phthisis.	Spleen Disease, Dropsy and Atrophy.	Injuries.	All other Causes.		
1859 . . .	1,616	...	11	...	...	9	...	...	3	2	5	...	2	32	19·80
1860 . . .	1,567	...	7	...	1	6	1	8	...	4	5	...	3	35	22·34
1861 . . .	2,101	...	20	...	...	13	...	13	3	...	13	...	5	67	31·89
1862 . . .	2,109	41	24	...	1	18	1	7	...	1	9	1	4	107	50·74
1863 . . .	2,027	...	...	196	5	24	...	6	2	...	38	...	11	282	139·12
1864 . . .	1,644	...	...	144	1	10	...	8	...	3	13	2	1	182	110·71
1865 . . .	1,964	...	...	74	3	1	...	2	...	1	4	2	3	90	45·82
1866 . . .	1,883	...	12	...	1	...	...	1	...	...	2	1	2	19	10·09
1867 . . .	1,917	...	9	...	...	2	...	10	...	1	...	...	...	22	11·48
1868 . . .	1,849	...	9	...	1	1	...	8	...	1	1	1	5	27	14·59
1869 . . .	2,089	...	33	...	...	10	...	11	...	1	...	...	2	57	27·29
1870 . . .	2,190	...	43	...	1	17	...	20	...	4	2	...	5	92	42·01
1871 . . .	2,456	...	3	...	...	10	1	14	...	4	3	...	2	37	15·07
1872 . . .	2,344	22	31	...	...	45	1	17	...	4	1	...	1	122	52·05
1873 . . .	2,224	...	38	...	...	36	...	74	...	5	1	...	13	167	75·09
1874 . . .	2,393	...	13	...	1	29	...	58	...	4	...	...	31	127	53·07
1875 . . .	2,203	14	18	...	1	36	...	35	2	4	3	...	17	130	59·01
1876 . . .	2,048	...	2	...	1	34	...	36	...	9	2	3	8	95	46·39

The medical history of the Lahore Central Jail (Table XLIX) is in many respects that of several others of the large jails of Northern India.

Lahore Central Jail illustrating the medical history of other large jails of Northern India.

In the first years, from 1859 up to 1862, the jail was very healthy. It escaped entirely the great cholera of 1861, from which Mecan Meer, the adjoining cantonment, suffered so much; and although 41 prisoners were lost in the second year of the epidemic, the general mortality was small, taking into account that both 1861 and 1862 were unhealthy years in the North of India.

In the three years following, contagious fever raged in the jail, originated by the epidemic of the North-Western Provinces which commenced in November 1859.

Three wonderfully healthy years succeeded, and the death-rate fell to 10, 11 and 14 per 1,000.

With the unhealthy influences of 1869 the mortality of 1868 was doubled; but both in 1867 and 1869 the epidemic cholera failed to effect its entrance into this large prison community. As above noticed, contagious fever, characterised by pleuro-pneumonia, came forward in this jail, as in others, in 1870.

In December 1873, erysipelas and diphtheria appeared in connection with pneumonic disease; and in 1874, 58 prisoners died from pneumonia, 16 from diphtheria and 10 from erysipelas.

In the cholera epidemic of 1872, 22 prisoners were lost; and 14 died in the epidemic of 1875. In the seven cholera years of the period, the jail escaped in four and was attacked in three.

In the same epidemic years from 1859 to 1876, the Rawalpindi Jail, so severely tried by contagious epidemics, lost only 10 prisoners from cholera.

The medical history of the Rawalpindi Jail (Table LI) is full of interest. From 1859 up to December 1862, it was one of the healthiest jails of Upper India. In January and February 1863, 49 deaths showed that contagious disease had established a footing; and the death-rate rose to 132, from 16 per 1,000 in 1861. In June 1864 the contagious fever died out; and in 1865 and 1866 the death-rate came down to 13 per 1,000. In October 1868, after a clear interval of four years, contagious fever reappeared, and no fewer than five outbreaks took place in the six years from 1869 to 1874. In 1872, the ratio came down once again to 13 in the 1,000, when 14 deaths occurred out of an average of more than 1,000 prisoners. The epidemics of 1873 and 1874 succeeded. But in 1875 the jail was free

Medical history of the Rawalpindi Jail, illustrating the various phases in which contagious disease appears in Northern India.

from epidemic or contagious disease, and the death-rate went down to 30; and in 1876, 6 prisoners only died out of 807, a ratio of 7·43 per 1,000.

The relation of these contagious fevers to season is defined by the figures given below :—

Fever Deaths in the Rawalpindi Jail, 1868-74.

1868	January	...	10	1870	January	...	28	1872	January	...	1	
	February	—			February	...			February	...		
	March	...			March	...			March	...		
	April	...			April	7			April	...		
	May	...			May	8			May	...		
	June	...			June	2			June	...		
	July	1			July	2			July	...		
	August	...			August	1			August	...		
	September	2			September	1			September	1		
	October	1			October	3			October	...		
	November	4			November	2			November	...		
	December	2			December	2			December	...		
1869	January	7	94	1871	January	9	48	1873	January	...	91	
	February	14			February	31			February	8		
	March	52			March	4			March	23		
	April	11			April	2			April	10		
	May	2			May	2			May	4		
	June	2			June	...			June	2		
	July	...			July	...			July	...		
	August	...			August	...			August	1		
	September	1			September	...			September	1		
	October	2			October	...			October	13		
	November	3			November	...			November	17		
	December	...			December	...			December	17		

1874	January	9	33
	February	10	
	March	5	
	April	4	
	May	3	
	June	...	
	July	...	
	August	1	
	September	...	
	October	...	
	November	...	
	December	...	

The clinical character of the fever of 1868-69 seems to have resembled that of the fever of 1873. It was a typhus, introduced in all probability by a working gang employed on the Sohan Bridge Works.

The following is the description of the fever of 1868-69 given by the Civil Surgeon :—

"For some time past a highly contagious fever has been prevailing in the Rawalpindi Jail. It is not relapsing fever nor typhus, although no doubt presenting occasionally symptoms of a typhoid type. It seems to partake more of the character of ordinary continued fever with marked cerebral complication. The patient on admission is dull and listless, with white furred tongue, but with no great amount of heat of skin or other febrile symptoms; and there is nothing in his appearance to indicate that he is suffering under a dangerous attack. From the first there is great prostration of the strength. Each day the tendency to stupor increases. In fatal cases death generally occurs before the seventh day. Those who survive until the tenth day after the attack recover. Convalescence is very slow. The strong and healthy men appear as liable to attack as the weak and sickly."

What follows seems to be a correct history of the introduction of the leaven which developed the contagious fever.

The Civil Surgeon writes: "The fact is undeniable, that since August last the condition of the Sohan prisoners was most wretched. They got emaciated; ulcers of a sluggish indolent type broke out on their bodies, and buboes and collections of matter appeared in various places. And altogether the appearance presented by them unmistakably proved that they had been long exposed to some influences, which were gradually reducing their vital powers. This was not so much proved by the number of deaths which took place as by the general condition of the whole body of prisoners belonging to that working gang.

"The men transferred to Rawalpindi for change were probably the worst cases, and there can be no question that the presence of these unhealthy men acted injuriously on the prisoners of the main jail. In December, sloughing ulcers, erysipelas and buboes began to show themselves amongst the prisoners in the main jail, and in January the epidemic fever appeared. I have no doubt that the disease occurred spontaneously, and was probably due to the crowding of the jail with debilitated and unwholesome prisoners transferred from the Sohan Jail."

This outbreak I take to have been allied in its nature and origin to that of the Benares jails of 1855.

It was evidently the same disease, possibly in a modified form, which reappeared towards the close of 1869. In January, February, and March 1870, 3 deaths appear caused by erysipelas and sloughing sore-throat. In April, contagious fever follows, which dies down in June, but

comes again into activity with the cold weather. This fever finally culminates in February 1871, and is at an end in May.

These three outbreaks I regard as hanging together, the chain of contagious diseases being linked on over a period of two years and a half. From June 1871 to January 1873, no contagious disease appears in the Rawalpindi Jail; in 1872, 14 prisoners in all died out of an average of 1,025 prisoners.

In January 1873, 2 prisoners die from erysipelas. A fever described as pure typhus succeeds, cutting off 42 prisoners, and dying as usual in June. When the typhus season comes round, in the fourth quarter of 1873, the prisoners begin again to die from contagious fever. But the type of fever is changed; and with it come fatal erysipelas and sore-throat. The contagious fever, erysipelas, fatal jaundice and sore-throat continue till June 1874; and the second series of outbreaks, spread over 18 months, ends. The simultaneous affection of the Peshawar and other jails points to the probability of renewed introduction of contagious disease from without, probably towards the end of 1872.

The lesson taught by this history is, that the dying down of an outbreak of contagious disease in June, is not to be regarded as necessarily denoting its extinction; and all clothing or covering used during a spring outbreak should be destroyed, or, if returned into store, thoroughly disinfected; and the former is to be recommended, as more certain to ensure immunity to the prisoners from contagious disease in the next cold season.

I have already remarked on the coincidence of contagious fever with other low forms of disease on the Punjab Frontier in the spring of 1855.* This seems to have been a continued, and not a relapsing contagious fever. Regarding this fever at Bunnoo, the Civil Surgeon expressly remarks, that relapses were not observed. The Dera Ismail Jail lost 24 per cent. of its strength, and the Bunnoo Jail, 30 per cent.

The typhus of Northern India is not necessarily a relapsing fever; nor is scurvy among the general population essential for its development.

The Inspector of Jails says that on his visit to the Frontier he found scurvy very prevalent in some of the towns and large villages, which the natives attributed to the want of rain.

Several medical officers have been of opinion that scurvy could be detected in all cases where contagious fevers have broken out. But this conclusion is erroneous. Scurvy is certainly premonitary of typhus, and no condition affords so suitable a nidus for the operation of the typhus poison. We may go even further, and say that a scorbutic community with overcrowding and bad ventilation, will readily develop contagious typhus.† But it is most dangerous to overlook or put into a secondary place, the truth, that when once a typhus is developed or the germ of typhus brought into a community, the fact that the community is a healthy one will not save it.

The establishment of quarantine wards in all jails of Upper India has rightly been recognised as essential; and the interchange of prisoners is not likely in future to be carried out as a remedy for overcrowding in a typhus-stricken jail.

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* These fevers began in April, and died at the usual date in June.

† Spotted typhus appeared in the Lucknow Garrison in 1857.

CHAPTER III.

EPIDEMIC FEVERS IN RELATION TO JAIL MORTALITY.

Epidemic fevers—malarious, relapsing, and typhus. How manifested in relation to areas and communities.

Putting aside febrile manifestations which may be classed as purely climatic, we may conveniently divide the epidemic fevers to be treated of in this chapter, into three classes—(*a*) typhus and its allied diseases, (*b*) relapsing contagious fever and its varieties, and (*c*) epidemic malarious fevers.

Now, while all these fevers may show themselves individually and distinctly, it very frequently happens that they appear over provinces in such combinations as to make the discrimination of the different fevers almost impossible to the observer who has not previously studied their natural history. Over one area, typhus, fostered by some special debilitating condition of the population, will appear as a continued fever in different shapes; while over another area and simultaneously, relapsing yellow contagious fever will be prevailing, and this, too, will show many variations in character. In a third province, a pure epidemic of malarious fever may be cutting off the inhabitants by thousands—a fever which cannot be transmitted from man to man, and which has a natural history diametrically opposed to that of either typhus or relapsing typhus.

By typhus I mean a fever such as I have described as prevailing on the Frontier in 1855, and in the Rawal Pindi Jail in 1868-69 and in 1873. Relapsing fever and its varieties are distinct in their characteristics, and are properly placed in a class by themselves; although relapsing typhus is not an inappropriate term, and will constantly be used throughout this chapter.

Typhus propagates typhus; relapsing fever propagates relapsing fever.

These fevers being propagated by contagion, it is not necessary that a man should be scorbutic or famine-stricken in order to render him liable to the attack of typhus; an individual or a community on which epidemic malaria has left no impress in the shape of intermittent or remittent fevers, will succumb to relapsing fever if the germ of relapsing fever be introduced.

Typhus fever or relapsing fever, is, in India, almost invariably an indication of antecedent misfortune to the population of some province. It may, however, spread far beyond the limits so affected, and invade areas which have never felt the famine or the debilitating disease which introduced the epidemic. When once the poison has made head among the population, these fevers persist through a series of years, and when introduced into a new province by contagion, they continue to spread, irrespective of the general health of the people, which may be in every other respect satisfactory.

I repeat again what I have said in the end of the last chapter. It is not essential that a debilitating cause should be sought for in every case where typhus breaks out; it is the germ that is to be excluded or stamped out, which is an object having a distinct natural history, and propagating its like.

But while typhus produces typhus in the human being, and relapsing fever the same variety of fever, and while each of the varieties developed during the progress of an epidemic of either fever also transmits its like, thus asserting the fact that these also when once originated are true varieties in natural history, it may be asked whence arises primarily the phenomenon of relapse so constantly found in the contagious epidemic fevers of Upper India.

Association of different epidemic fevers and possible connection one with the other.

I have given the subject much thought of late years, and reviewing the circumstances under which the different epidemics of the past 60 years have occurred, it seems to me that the association of epidemics of malaria and relapsing typhus, so very often observed, is not accidental. As far as I can judge, famine fever in India does not present the relapsing type unless it be preceded, accompanied or followed by an epidemic of malarious fever.

Several epidemics of malaria in this century have had no typhus as a sequel, as far as I can ascertain. But in most of our well-known epidemic epochs, the three scourges of the population—epidemic malaria, famine and typhus—have co-existed or succeeded each other, sometimes in one sequence and sometimes in another.

Parallel course of epidemic malarious fevers and cholera.

In my different cholera reports I have tried to show, that malarious fevers, apart from fevers which are due to the varying meteorology of the seasons in the various provinces, run in Upper India a parallel course with epidemics of cholera: parallel in season, showing the natural alliance between the two miasms; parallel frequently in geographical distribution, showing that the influences causing the spread of both miasms are the same and natural agencies; and parallel also in the fact, that the succession in which provincial areas are covered is the same in each case.

All non-contagious fevers appearing at the season when epidemic malaria prevails are not malarious fevers.

The mere development of fever does not imply that the specific miasm of an epidemic of malaria is necessarily present, any more than the prevalence of diarrhœa implies the presence of the cholera miasm. But while some have gone to the extreme of denying altogether the existence of such a thing as a specific poison manifested in malarious fever, my study leads me to infer, that the miasm of malaria is as specific as that of

cholera. Its manifestations are, however, less definitely marked ; and hence the difficulty of appreciating the natural history of the malaria miasm, as read in its manifestations, is far greater than in the case of cholera, since the fact of the presence of cholera can never be misapprehended.

Primarily, malarious epidemic fever is not contagious, and mistakes may arise by assuming the contrary.

Many of the most deadly epidemics of India have been caused by fevers purely malarious. When the deadly remittent type of this fever is general over an area, the inexperienced constantly ask, whether so virulent a fever is not being propagated from man to man ; and inferences entirely at variance with facts are deduced from a mistaken view of the nature of the prevailing fever.

Another very common misapprehension is, that, for example in a jail community, the ordinary fevers of August and September degenerate into a typhus in the end of the year. In several cases I have noted the true history as very different. As a rule, these jails have been infected by typhus in April and May, when the typhus season was coming to an end ; the germ of contagion was lost sight of from June to October, although all this time continuing to infect the community, and ensuring a deadly outbreak lasting from November till June of the year following.

Importance of distinguishing the different varieties of yellow fevers.

The extreme importance of apprehending correctly the natural history of fevers in general, and of yellow fevers in particular, cannot be too strongly urged. Copland insists on the same thing in the very comprehensive sentence which follows :—

"The manner in which very different diseases have been confounded the one with the other, by those espousing the non-infectious nature of yellow-fever, whether from ignorance or unfairness, has led to the most serious consequences to the community, has misled the inexperienced, mystified the subjects in dispute, furnished grounds for a special pleading sort of argumentation, and endangered the safety of fleets and armies and even of kingdoms." *

Epidemic Malaria.—The Succession of Epidemics from 1807 onwards.

Epidemic malaria has a history, general and local. A single locality may be taken as typical for a great natural province.

What is meant when we speak of an epidemic of malarious fever, I have many times tried to explain, and I shall here again illustrate the subject.

Taking a typical station or district, say in Northern India, which experience tells us will localise malaria if epidemic, the records of a very long series of years will point out certain seasons, separated by clear intervals, which are indices of the universal prevalence of malarious fevers, not in the district specially, but over the entire provincial area defined by subjection to the same meteorological influences.

The Saharunpore district as typical, taking the epidemics from 1810 onwards. The epidemics from 1810, general as well as provincial manifestations.

The history of the Saharunpore district in Northern India in its relation to malaria epidemics is typical. The local enquirer ascertains, that in the past seventy years certain years are recorded or traditionally remembered as years distinguished from all others as fever years ; and these are the years recognised in all other districts of the same natural area as the fever years of the present century. As in the case of cholera, not one but many natural provinces may be covered simultaneously, or in succession, by the same epidemic.

Dr. Garden, who was for many years Civil Surgeon of Saharunpore, in endeavouring to estimate the effects of canal irrigation on the development of fever, has brought together from the records of his district the general facts extending over a period of fifty years, and has supplemented these by enquiries among the inhabitants, who, as I have said, recognise seasons as epidemic, and know that in their constitution such seasons differ essentially from what is normal for the locality.

Such an aggregate of facts was exactly what was required to show that a single locality may be typical for a natural province in relation to epidemic malaria. The natural provinces of malaria and cholera being the same, and the laws of distribution homologous, a typical station or a typical district, as in the case of cholera, will show that the local phenomenon is but a fraction of a universally spread and geographically limited whole ; and what is noted as an epidemic of malarious fever in Saharunpore is but an index of the spread of the same fever over many or over all the epidemic provinces of the Continent of India.

It was the localisation of epidemic malaria in 1869 that caused Dr. Garden to turn his attention to the enquiry. He writes : " Feeling that the terribly fatal outbreak of 1868—70 must be in some way exceptional, I have searched all available records for information, in the belief that to read the epidemic aright, the history of the past must be studied." His conclusion is, that the study furnishes proof that at certain periods violent epidemics have occurred, which, implanted on the ordinary endemic fever, have proved most fatal, though at the same time they formed but portions of wide-spread outbreaks, extending over more or less of the whole peninsula, and passing even beyond its bounds.

Dr. Garden quotes my account of the geographical area covered by the fevers of 1850 and 1859, as given in the original cholera report, and he states that ever since he witnessed the great fever of the end of 1859, when he was Civil Surgeon of the Ghazeepore district, the impression left on his mind has been the same as that conveyed to me by the occurrences of these few weeks.

In the present century up to 1850, Dr. Garden finds in the Saharunpore district records of the following epidemic years : 1809, 1817, 1829, 1834, 1843—45, and 1850.

* Dict. Epidemics, p. 779.

The earliest visitation is traditional, for little was known of Upper India at this time. I take this, reasoning back from modern data, to have been the manifestation in Upper India of the epidemic fever of Chota Nagpore of the end of 1807, of which I find an account in the Records of the Medical Board in 1808. The fever commenced in August, and was at its height in September, which fact alone shows it to have been a malarious fever, notwithstanding the severity of the symptoms. The Board were of the same opinion. On 18th April 1808, addressing Government, they write:—

The succession of epidemics of malarious fevers. Epidemic of 1809.

"It does not appear to the Board that the disease in question was of a contagious nature, or differed in any respect from the common remittent fever of the country, except in having been rendered unusually malignant by the state of the villages where it prevailed, and the more than ordinary want of cleanliness in the inhabitants."

The Civil Surgeon gives the following symptoms of what he calls putrid fever in its different gradations: Rigors often very severe, heat excessive and permanent, universal lassitude, pains in the loins and head, almost constant stupor, vomiting of black and fœtid matters, eyes tinged yellow, tongue dry and covered with black crust, which covered also the lips and teeth. This was in the worst cases. The same symptoms are to be met with in the course of any severe malarious epidemic.

The fever of the second period is that described by Jameson: "The stations affected wore a gloom hardly to be conceived at the commencement of the cold season; every family was suffering in some of its members. All social intercourse was interrupted; and the only communication between separate families consisted in visits of condolence and consolation." Saharunpore is one of the stations specially mentioned as having had a great mortality. And again he writes, that before the end of August, this bilious remittent, accompanied, like the yellow fever of the West Indies, with suffusion of the skin, was raging from Patna to Saharunpore.

Epidemic of 1816.

The fever which was epidemic in the Gangetic districts in the previous year, broke out west of Delhi in August 1829. I have been able to pick out the following relating to the epidemic fever of 1829, as far as it affected the districts west of Delhi. It was a pure malaria of August, September and October, as will be observed from these extracts. Again, as in the two preceding cases, the fever shows itself as a yellow remittent in the worst cases.

Epidemic of 1829.

The Records of the Medical Board contain the following remarks by the Superintending Surgeon of the Division, written in the months in which the fever was epidemic:—

September 1829.—"The returns for July exhibited signs of approaching sickness, and towards the end of August the Civil Authorities at Delhi applied for the services of Native doctors to send to the villages, not only on the borders of the canal, but in the remote parts of Hurreeana, where great mortality was stated to prevail, and where, indeed, the whole population were said to be prostrated by fever.

"Soon followed accounts from the cantonments of Delhi, that the temporary hospitals could not hold half of the sick, and that the hospital establishments were themselves struck down and unequal to their duties. From 120 to 150, or more, of each corps were on the hospital books, and as many more were treated in the lines. Up to date no account of any diminution of the sickness has reached me. The epidemic appears to be of the nature of an intermittent. Hopes are entertained, as the weather is improving, that the sickness will subside without doing much mischief."

October 1829.—"The change of weather mentioned in my last report proved to be the close of the rains. The epidemic has continued to rage in the district of Hurreeana. The fever, although frequently assuming the intermittent form, appears essentially of a bilious remittent kind. I should say it is allied to the worse type, called the jungle fever. A bilious tinge, often strongly marked, is observed in the majority. A dejected look, despondency even when the febrile symptoms have been overcome, sinking of the features, debility and emaciation are characteristic, and convalescence is slow.

"At Meerut, in the native corps, the epidemic has been so mild and tractable as not to require special notice. At Delhi it has been far otherwise, with this qualification, that the mortality has still been small, compared with the numbers that have suffered." *

Later on in the season, the results are described thus:—

"The general character of the epidemic has undergone few changes. The fever in its severer form has assumed the remittent and, in milder cases, the intermittent type. Since September, dysentery has frequently been associated with the fever, and most of the casualties that have taken place within the last three months have been occasioned by diarrhœa. Since the beginning of November, a decided change for the better has taken place in the health of the inhabitants.

"Many, however, who have suffered, have been subject to bowel complaints and rheumatism, and many also to induration and enlargement of the spleen."

The Report concludes thus:—

"The climate, hitherto remarkably healthy, is undergoing a gradual change, consequent on irrigation and the cultivation of land up till now dry and barren. There is a tradition among the inhabitants that similar sickness occurred during the reign of Ferozeshah, when the climate was exposed to like influences; and popular opinion still attributes the sickness to

* Compare the geography of 1850 ("Cholera Report of 1868," page 75):—"Meerut did not show much indication of the epidemic; yet the same atmospheric influence, in a diminished degree, was observed in the military hospitals in the increased admissions from fevers."

the influence of the canal, although all are ready to admit the benefits that it otherwise confers upon the place and people."

Epidemic of 1834.

In 1834, writes Dr. Garden, fever was again terribly prevalent. The fever of this epoch is the epidemic which I associate with the typhus which for years after prevailed over Upper India. This fever of 1834 was also provinciallly distributed. It raged over Western Rajpootana (Ranken, p. 39), and I find that 179 deaths occurred among the native troops in Nusseerabad, Neemuch and Mhow. The Superintending Surgeon of Neemuch says, that the fever began in August at Nusseerabad and rapidly extended over Rajpootana, and the influence was partially felt as far south as Mhow. At Nusseerabad and Neemuch the sick of some corps exceeded one-third of the strength. In November, with the setting-in of the cold weather, the disease declined. What was called scurvy, was universal over the same tract in 1833-35, and the Pali plague appeared in 1836. The great famine of 1837 followed in the North-West, and from 1836 to 1838 there is a continuous record of the existence of typhus and relapsing fevers. Judging from parallel history, I take this to be the manifestation in Upper India of the deadly remittent of Twining and Martin, so fatal to the European community of Calcutta in 1833.

Epidemic of 1844.

The fever of 1843-44 was universal over Northern India. In Southern Scinde it did not prevail in power; for we are told expressly that the 78th reached Sukker from Kurrachee in good health on 25th October 1844, and that the regiment remained healthy until the beginning of November, when the fever burst forth with unheard-of violence. General Napier, in his review of the Administration of Sir C. Napier in Scinde, writes: "Sir C. Napier arrived at Sukker on the 19th December. But no joyful state of affairs greeted his arrival. The pestilence was abroad, the European Artillery was entirely disabled, two hundred of the 78th dead, and others daily falling into their graves that seemed destined to swallow all. With anguish of mind their General was compelled to send the survivors to Hyderabad, instead of leading the whole, as he had hoped, to a glorious service. Nor did even this save them, and nearly as many more perished ere the sickness ceased." * Sir Charles Napier, writing on 19th December, says: "I have lost the 78th; that beautiful regiment arrived here in high health, and every other part of Scinde† was healthy; but the first week in November they began to grow sickly, and here they are bodily in hospital, and about 200 dead,—men, women, and children."

But this malaria was not confined to the west of the epidemic province. It was localised almost as powerfully in Kurnaul, as at Sukker. Kurnaul, long known as a healthy station, was finally abandoned on account of the localisation of this very malaria; and it was on account of this same epidemic that Dempster's Committee was appointed to inquire into the causes localising malaria to the west of Delhi.

The fever of 1844 re-appeared in the monsoon season of 1845 and 1846. The following quotation tells of the state of the excellent and non-malarious cantonment of Umballa under the influence of the epidemic malaria of 1846. Dr. Logan, then Surgeon of Her Majesty's 53rd Regiment, writes: "Fever infested the corps for nearly two months. The latter part of August and earlier part of September was a period of most oppressive sickness. Intermittents became very numerous; remittent fevers also assumed a severe and malignant form evincing all the especial and urgent symptoms of the bilious remittent fever of the tropics, with early accession of cerebral disturbance, and congestions of the liver and spleen. Several cases were attended with universal tinge of the skin and conjunctivæ, in varying shades from a faint yellow to deep saffron. Remittent has been the fatal form of fever, and forty-seven casualties have been numbered thereby. In these the duration of the disease was various, from the abbreviated career of four or five days, to the lingering course of a month. In the former, speedy congestion of the brain terminated in early and fatal effusion, and in instances of the latter the patient became slowly worn and emaciated and died in low delirium."

The same epidemic in progress from the east is indicated in the medical history of Her Majesty's 29th Regiment stationed at Ghazeepore.

On 11th and 12th August‡ 1844, the Surgeon of the Regiment first took the alarm. At this date the fever cases assumed an indistinct remitting form. Up to the 19th, the date of the reporting letter from which I quote, 97 cases had been treated, of which 9 were fatal, and others were likely soon to terminate in death. Sixteen deaths occurred before the end of the month, and the foundation was laid of deadly sickness extending into the cold season.

All of these epidemics, seem, like cholera, to have had their origin in the east of India—1808, 1816, 1826-27, 1833, and 1844 being the great fever years in the Gangetic provinces; and the deadly bilious remittent type distinguishes all. The yellow fever was not a typhus, since it raged and cut off the population during the months in which typhus is extinct or in a state of decay, and died off at the season when typhus commences its epidemic career.

Epidemics from 1850 onwards.

The epidemics of malaria in succession from this period onwards, have been treated of in my Cholera Reports of 1868, 1869, and 1872—namely, the epidemic of 1850-51, of 1863, of 1866-67, and of 1869-70.

I should like to have gone over the same ground again, in order to show that the fevers of these periods were truly epidemic in the sense which I have attached to the term. But space will not permit.

Association of the fever of Lower Bengal with the fever of Upper India.

Thus I read the epidemic history of the malaria covering Northern and Western India by invasion from the east. I cannot undertake to point out the endemic home from which these fevers have issued. In the future, when parallel epidemics are in progress, as will undoubt-

* Napier's Administration of Scinde, p. 159. † That is, Southern Scinde.

‡ The same days on which epidemic malaria has appeared over Upper India on so many occasions.

edly be the case, the local source of the malaria in the East may be looked for. I can only indicate generally the fact that the malaria miasm has an abode in the same region from which we recognise that the cholera miasm issues, as we know by the manifestations which have desolated so many tracts of Lower Bengal in the past ten years. I believe that every epidemic invading Northern and Western India previously affects the Gangetic provinces or Chota Nagpore. In 1808, as in 1866, the epidemic is found crossing the Hazareebaugh plateau; the Calcutta fever of 1833 precedes the epidemic of 1834 in Western and Upper India; the Gangetic valley, as far east as Patna, is occupied by the epidemic of 1816; the fever of 1844 affects the Europeans at Ghazeepore as well as in Scinde and the Punjab; the fever of 1859, repressed out of Northern India by the famine meteorology until 1861, had its base in Rajmehal, Rajshahye, and Purneah; the great malaria of Agra and Northern India of 1856 was preceded by the epidemic year 1855 in the East; the 80th Regiment was decimated by yellow malarious fever at Dinapore in 1849, and the 1st Fusiliers at Lahore, by the advance of the same epidemic in 1850. The sequence I hold to be natural, and not fortuitous.

Localisation of epidemic malaria in Upper India. The subject illustrated.

The localities which malaria prefers are the same chosen by cholera. Naturally dry stations, such as Mecan Meer or Nusseerabad, are stricken by malaria and by cholera as a moving epidemic. They suffer for a certain number of days or weeks from both epidemics, and into this short period much suffering may be compressed, although no true localisation has taken place.

But many districts of Northern India invite both malaria and cholera to settle, and afford to both the opportunity of renewing their manifestations for months afterwards.

The localisation of malaria is a point of very great interest. Moist tracts of Upper India have of late years retained the miasm as effectually as similar tracts within the endemic area in Lower Bengal. For the past ten years, these fevers have run a parallel course with those of Lower Bengal. They have formed the subject of many memoirs addressed to Government, called for in consequence of the deadly results which they have caused in the tract affected in the different years. Even before the mutiny, we had a notable example of the localisation of the epidemic fever of 1856. It settled in a portion of the Allyghur district, which was covered also by the great cholera of 1856. It died with the setting in of the cold season, after having in a few months cut off 34,000 persons. The bad fevers of Bolundshuhur, Allyghur or Mozuffernuggur are identical with those of Burdwan, Hooghly, or Nuddea; they appear, run their course and die out, and continue absent for a long series of years, and no one can say that the local conditions are different from what they were when the invasion took place. The entire disappearance of the terrible fever of Lower Bengal, last manifested as the Burdwan fever, is a case in point.

The following are extracts from Mr. Cutcliffe's report to the Government of the North-Western Provinces on the fever of 1866-67, localised in the Saharunpore and Mozuffernuggur districts:—

"Though the disease prevailed in many parts both of the Saharunpore and Mozuffernuggur districts, it was neither universally distributed throughout those districts, nor was it equally severe in those parts which were affected by it. Its ravages were chiefly marked along certain watercourses and low swampy valleys.

"The fever commenced in all the affected places at nearly the same time, namely, in July or August, and ended generally about December.

"The evidence seems to me to be conclusive, that the character of the fever which I have been directed to trace and study, was malarious fever.

"It was most often intermittent, of which the most frequent type was the quotidian, though cases of the tertian type were not uncommon. Sometimes the fever was remittent, when it was always most severe, and was frequently attended by enlarged spleen and by hepatic affections, manifested by jaundice and sometimes leading to dropsy; and occasionally cases ending in general anasarca (dropsy of the whole body) were described. Diarrhœa, in some of the towns, was spoken of as not a very uncommon complication of the graver remittents, and when it came on it usually destroyed life. Where patients did not die from remittent fever, the disease usually became intermittent before it ceased, the most common type being the quotidian, and, at a later period of convalescence, not unfrequently tertian.

"In some of the towns rheumatic affections were much complained of as attending the later stages of the fever."

I make this last quotation chiefly to disprove the suggestion which has lately been made, that the same fever is an enteric fever. There are no grounds for entertaining such a suggestion, whether as applicable to the endemic of Bengal, or to the localised epidemic of the North-Western Provinces.

Localised malaria is not allied in its nature to enteric fever.

A detachment of Her Majesty's 85th Regiment, marching from Futtehghur to Meerut in November 1874, became affected by the fever, evidently while passing through the infected tract of 1874. The fever continued to show itself for weeks afterwards. Nineteen men were attacked in a severe form, and several died. The fever was confined to the detachment, and did not affect the rest of the regiment after the detachment joined. The Surgeon attributed the fever to the use of an impure well near Koorja, one of the towns which suffered most in 1874. That the poisoning took place in this neighbourhood is certain. But that it was due to the use of bad water, can only be guessed at; and that it was an enteric fever is disputed by nearly all who saw the cases. The Surgeon admits that the age and length of service of the men affected were exceptional, and contrary to what has been recorded regarding

fevers known to be enteric; the fever was not attended by the characteristic eruption, and bowel affections did not complicate the course of the fever.

In my Cholera Report of 1868, I noticed a parallel case, that of Her Majesty's 79th Regiment in 1866-67, well illustrating the effects of a localised malaria. It throws light on the case of the 85th; and no suggestion was made that this outbreak was enteric in its nature, or resulted from the use of impure water.

It was attributed, probably with reason, to early marching and the damp of an unhealthy camping ground. Nine men died from the fever. As a sequel to the fever, phthisis was in some cases developed, and 14 men died or were invalided on this account; and, also as sequelæ, there were 230 admissions on account of rheumatism and 54 from orchitis.

Historical record of Epidemic Typhus and Relapsing Fevers of India, and their association with Malarious Fevers and Famine.

The association of epidemic malarious fever with famines and contagious fevers. Epidemic periods.

Besides the typhus period 1852—56, during which contagious fevers established themselves on the Punjab Frontier, and showed themselves in Rajpootana, in Rohilcund and in the Himalayas, the history of the past sixty years brings up three special occasions on which typhus was spread over India from the Himalayas, through the North-Western Provinces and Rajpootana, to Cutch and Guzerat. These periods are 1816—20, 1836—38, and 1859—65. The history of the first period in Western India, has been preserved by the publication, in the first volume of the transactions of the Medical and Physical Society of Bombay, of the memoirs communicated to the Medical Board by the officers of the Northern Division of the Presidency who saw and treated the fevers. We can supplement these for Northern India by jail records, which prove the presence of typhus at this time in the North-West, and which we know to have prevailed then or very shortly afterwards in the interior of the Himalayas as the Mahamurree of Kumaon. Ranken's account of the Pali Plague of 1836-37, contains the history of typhus spread from the foot of the hills to Western Rajpootana, and I find the disease as late as 1838 decimating the prisoners of the Agra Jail. The third general outbreak, commencing in November 1859, has been the subject of many interesting memoirs, chiefly by medical officers who have met with it in the jails under their charge.

In all three periods we find the association of epidemic malaria, famine and typhus. But if I should assert that famine in each case has developed the typhus, the facts, as far as I know them, would not bear out the statement. In 1859, I can trace contagious fever in several jails of the North-West early in the spring; and this was the same in character as that which broke out so universally in these jails in November of the same year, which were, as the rule, quite beyond the limit of the province of the epidemic malaria of October and November. The year 1859 was characterised by the abundance of the harvests in Central India; and yet it is possible that typhus may have prevailed before the great fever of the year, which I take to have been a malarious fever, was developed. It was not until 1861 that the population generally was suffering from famine. So in the previous period; the great famine was in 1837-38, the typhus began in 1836, and the malaria epidemic was the fever of 1834-35. In the earliest period, also, the malaria epidemic of 1815-16 seems to have preceded the famine and the contagious fever, which was said to have taken on its special character from the debilitated state of the population.

Malarious fevers, famine, and contagious fevers between 1815 and 1820. Famine of 1818-19.

In the north, the famine years 1818-19 succeeded the famine year 1803. Colonel Baird Smith, in the report of 1861, reviewing the famines of Bengal, remarks (paragraph 27): "Regarding the drought of 1818-19, I have been able to learn even less than of that of 1803. I can judge of its severity only from the references made to it by intelligent native informants, who invariably placed these among the very bad years."

The failure of the rains of 1816 is, however, described in Jameson's report.

"In the Upper Provinces," he writes, "the extraordinary scantiness of the rains was yet more remarkable, and was attended by more deplorable results. In the month of July a few showers fell, but they were partial and of short continuance. From Benares upwards, the districts within the Doab, and those west of the Jumna, were dried up by the long-continued and unceasing heats. The parching westerly wind kept blowing through August and the first fortnight of September. Not a shower fell; and so excessive was the heat, that tatties were in use at Futtehghur, Coel, and other stations during the whole of this period. Since 1803, the memorable year of the commencement of Lord Lake's campaigns, no such season had been experienced." A universally spread epidemic of malarious fever followed. He continues: "It was not to be expected that so great a deviation from the common course of nature should prove wholesome to the human constitution. Sickness exhibited itself in the shape of a bilious remittent fever of a violent inflammatory type, accompanied, like the yellow fever of the West Indies, with suffusion of the skin, and, unless when cut short by bleeding and other powerful auxiliaries, rapidly running its course, and, in spite of every remedy, terminating fatally at the end of two or three days. The mortality produced by it in Delhi, Saharunpore, Futtehghur, Benares, and other large cities was very great. But Cawnpore was the chief seat of its ravages among Europeans. The 87th and 66th Regiments suffered dreadfully. From the time of their reaching

Epidemic malaria preceding the famine. The fever in the Gangetic provinces, Northern and Western India.

the station they lost nearly 400 men. The former corps is stated to have had 519 in hospital at once, and to have buried 21 persons, including women and children, in one day, and upwards of 90 of its number within a month. This is a degree of mortality far exceeding anything on record in the medical annals of Bengal."

This sickness, I find, went on up to the end of the year, when it abated. In November, the 66th Regiment lost 55 men, and the other three regiments 45 between them.

Delhi and Saharunpore in those days represented our North-Western Frontier, but from an incidental observation contained in the Bombay reports, the usual provincial distribution much further to the west, may be inferred. In the same month, November 1816, it is stated that at Hyderabad in Scinde the population were then dying at the rate of sixty and seventy a day.

The fever, no doubt of the same epidemic, progressing on the southern epidemic tract, seems to have reached Guzerat in the year before. The history of Cawnpore is repeated at Surat. Dr. Kennedy writes:—

"In 1815, I saw Her Majesty's 47th Regiment nearly destroyed by bilious remittent fever. The corps was below 500 strong, but was in every respect healthy and effective; but when the fever broke out, scarcely any escaped. The casualties were at least 40 per cent.; for the Commanding Officer, who died himself of the fever a few weeks after the conversation I allude to, told me the regiment had buried more than a third of its strength."

Relapsing typhus of the same period. Illustrated from the records of the jails at Moradabad, Saharunpore, and Allahabad.

Just as in 1859, relapsing fever broke out in the jails of the North-West towards the end of 1816. I find the following account of what is evidently relapsing fever, in the records of the Medical Board for 1817. In the Moradabad Jail sixty-four prisoners had died within a short time, and a report was called for. The fever was evidently considered contagious, for we find the Magistrate, in calling for the report, reminding the Civil Surgeon that three instances had occurred in which prisoners had died who had gone into hospital perfectly well for the purpose of attending upon the sick. The Civil Surgeon states, that, although Moradabad has recovered its salubrity, in many parts the sickness, so universal in the previous year, still continues, and that this may have been one originating cause of the local sickness. To dread of the hospital he gives an important place, but only as influencing the nervous susceptibilities of the patients. The prisoners themselves, however, connected the hospital with probable chance of contagion. The report states: "Great sickness prevailed at the time of removing the patients into the new hospital, and the deaths which soon after occurred were very numerous. The prisoners began to connect this mortality with something contagious in the hospital itself; and the unusual circumstance of three individuals dying suddenly, who were previously in perfect health and had been sent there merely to attend upon the sick, gave such colour to this notion, that a general alarm and aversion to going into the hospital was entertained throughout the jail. This unfortunate impression could not fail to prove injurious; and there can be no question that the sickness, and consequent mortality, were considerably increased by it, by deterring those who fell sick in the wards from disclosing their complaints, so that some actually died who have never been known to be ill, and others died not reporting themselves sick until too far gone for recovery."

Exactly the same observation was made when typhus broke out in the Moradabad Jail twenty years later; and in many of the outbreaks of 1859-65, the same mistake has been made, of presuming that the prisoners were concealing their illness for fear of being sent to hospital. Instantaneous onset and sudden severity of the first symptoms, and the absence of a period of *malaise* is characteristic of the relapsing typhus.

The report continues:—"In some cases even where the patients after their admission into the hospital were in a fair way of recovery, this impression continued with unabated force, and showed itself in the most restless inquietude, and in daily petitions to be allowed to return to their wards. In consequence of these earnest solicitations, and apprehensive also lest this feeling of dejection and alarm should bring on a *relapse*, it was sometimes thought expedient to comply with their request to be discharged from hospital. This change, however, in many instances proved fatal. For these deluded wretches, overjoyed at their escape from hospital and return to their associates in the wards, gave loose to that inordinate appetite so frequent after recovery from sickness, and soon brought on that very relapse which they so much dreaded in their late abode, which they called the "house of death."

A few points in this paragraph call for explanation.

Relapse in relapsing typhus has in more than one narrative been ascribed to hospital infection, with which it has no connection whatever.* The fever recurs after apparent recovery as certainly in isolated cases as in a crowded hospital.

It is curious also to note, that the voracious appetite in the interval between the relapses, which is also a characteristic of relapsing typhus, has also often been noted as the *cause of relapse*, and of the fatal symptoms frequently attending it.†

The disease was not jail cachexy; for we read further on, that some of the deaths were so sudden as to induce suspicion of means having been used to bring about a fatal termination.

There is still another allusion to this fever of 1816 in the records of the Medical Board. The Jail Inspection Report of the Saharunpore Jail contains the following:—"I understand

* "So infectious did it become, from concentration of the effluvia, during the coldest months, that if a patient shook it off for a day or two, he was almost certain of a relapse."—Moradabad Jail Fever of 1836-37. Dr. Stuart to Mr. Playfair, Superintending Surgeon, Rankin's Report, p. 210.

† "There is a ravenous desire for food, the indulgence in which is generally fatal; this bulimia continues up to the moment of dissolution."—Bareilly Jail Fever of 1836, p. 212.

from the Surgeon in charge that typhus fever has repeatedly occurred, and that the casualties from this disease and the endemic remittent, have been numerous in the extreme; and that he was induced by the violence and fatality of the latter disease during last year to remove his sick to a large house in the city."

As late as the spring of 1819, I find a record of relapsing fever in the Allahabad Jail. Ninety-eight prisoners, out of an average of 800, died between January and June. The disease is described as typhus mitior, a yellow fever with relapses. In the month of April, the Civil Surgeon writes:—"Fever of a very severe continued type is epidemic in jail; many convalescents suffer relapses." Fifty-one deaths occurred in April and May. He adds:—"I had reason to believe it to be contagious, from the circumstance of two Native Doctors and several of the attendants on the sick being attacked with it. Both of the Native Doctors died of the disease." The very characteristic sign, tenderness at the epigastrium, is particularly noticed.

Typhus and relapsing fever of the period in Western India.

Typhus in Western India seems to have followed immediately on the malarious epidemic of 1815. When Jameson wrote, the fever of the West had been recognised as epidemic typhus.

In continuation of the Cawnpore narrative, he remarks:—"A similar mortality preceded by great scarcity of grain, prevailed about the same time in Cutch, Sindh, and the other States bordering on the western side of India. By the natives it was ascribed to the plague, and was said so to have depopulated several cities that the living were unable to bury the dead."

Mr. Whyte's Report ascribes chiefly to famine the type which the fevers assumed. He says:—"The severe famine which visited this province (Kattywar) gave an influence to other causes, which, otherwise, they would never have acquired; and the one thus aiding the other, both gained an increase of force. Indeed, pestilence and famine have so constantly gone together, that a sentence seems incomplete, where one is pronounced without the other." He goes on to describe the nature of the fevers, their contagious character, and their alliance to plague. Mr. McAdam's Report relates to the prevalence of these fevers in the very towns in which they became again epidemic in 1864. Mr. Gilder's Report is on the Ahmedabad fever of 1817, which he says the natives connect with the dreadful famine which raged with such destructive fury over Kutch and Kattywar three years before. An appendix to the Pali Plague Report of 1836 (No. 45) gives an account of the Bubo Plague of 1818 in the Bombay Presidency.

Allied malarious epidemics in Southern India—1810, 1816, and 1833-34.

Before going on to trace the association of the different fevers in the next period 1833-38, I shall note the sequence of the invasions of epidemic malaria in Southern India. They are the same as with us in Upper India, following in this respect the law of the invasion of cholera. In the Madras Topography, published thirty years ago, a single sentence supplies the links wanted to connect the history of epidemic malaria in Northern and Southern India.

The following occurs in the report for the Dindigal District:—

"A malignant epidemic fever raged in the year 1810, in the southern provinces, occasioning great mortality; to such an extent indeed, that Dindigal was of necessity abandoned as a military station, and not re-occupied till the latter end of 1813. To investigate the cause of this fatal malady, a committee of medical officers was appointed in 1811, and the result of their enquiries was submitted to Government, and afterwards published. In the districts of Madura, Dindigal, Coimbatore and Tinnevelly a total of 106,789 deaths was recorded. About the middle of 1812 the ravages of the fever abated considerably, and shortly after it disappeared altogether.

"In the year 1816, the fever again returned, and it would appear, with greater violence than before. Since the above scourge, it does not appear that this district has been visited by any fever epidemic. The mortality in 1833 and 1834 was, however, great, although it fell far short of that which occurred in other parts of the country. This is attributable chiefly to the circumstance of the late dearth having been but comparatively little felt."

Epidemic malaria, typhus, and famine of 1833-38. Scurvy preceding the outbreak.

A peculiar state of the population of Western Rajpootana preceded the fever epidemic of the rains of 1834. Scurvy was universal, and the troops over the division became unfit for service. The reports on this disease are dated July 1833.

The report for Beawur states, that the scurvy first appeared in March 1833, and that it still continued to prevail among the troops, and in the town and district. There was scarcely a man of the Battalion unaffected. The fever cases appeared to be much influenced in their symptoms and progress by the prevalent diathesis. The writer is at a loss to assign any cause for the scurvy. He says:—"The disease appeared long before the scarcity, and after the scarcity many who could afford to live well became affected. I know not whether it may be attributable to the drought continued at this place for nearly two years, and to the water, always containing much saline matter, containing from the same cause, these matters in a more concentrated form."

The report for Nusseerabad mentions that until September 1833 there was not a single case of scurvy. During fourteen years of occupation, the troops had not felt the effects of any such visitation. It is said that it is only after a succession of dry seasons, such as had been experienced, that the disease appears. It is very curious to mark, in connection with the bubo plague which followed, that ulcerations of the groin are mentioned as an indication of the diathesis.

After detailing some exceptional appearances, the report gives the following as typical: "After admission into hospital, there was languor and perhaps a paroxysm or two of fever, with at times regular evening accessions. Day after day the blunt projecting edges of the gums

grew more prominent, and became soft and soon assumed a spongy hæmorrhagic appearance. The mouth and tongue got pallid, and the breath emitted a heavy sickening odour. Now the pulse increased in frequency steadily throughout the day; irritative fever set in; and tormenting pains were developed in the muscles or in the tendons of the extremities, seldom in more than one member, unless when the cases were of considerable aggravation. These sites got tumified, exceedingly tense and non-elastic, and having the skin over them of a colour unnaturally dark. They were more or less diffused, sometimes occupying the whole circumference and extent of the limb, which would have a shining polished appearance. Sometimes they would only embrace a portion of the extremity such as the calf, and then the color was generally darker. Vibices occasionally came out in other places, without either pain or swelling. In this state the patient's flesh and strength wasted rapidly. The teeth embedded in the flabby gums felt loose and were unfit for the purpose of mastication, and a horrid fœtor now proceeded from the mouth. Despondency took entire possession of the mind; there was no sleep from intense suffering, and no appetite. At this period every symptom underwent rapid advance, and the unfortunate subject sank eventually, and more immediately under dropsical effusion."

Epidemic malaria and typhus in various forms, and famine following on the scurvy. Typhus general over Northern and Western India.

On this state of matters followed the epidemic malarious fever of 1834, and in the spring of 1836 relapsing typhus was epidemic over Rohilcund,* and the Pali plague in Rajpootana. Throughout 1837, there is a long record of typhus over all the same area. Rankin tells us that, while the reported plague prevailed in the west, common intermittents and remittents existed in the intermediate space; and an infectious yellow fever devastated our villages and jails in Upper India. Appendix 8 of the Report proves that the same yellow fever existed in Rajpootana. Dr Irvine's letter states, that at Jodhpore, where thousands have died from the present epidemic of yellow fever, in very few or none of the cases buboes were observed; hence the malady was said not to be the plague, and to have no connection with the Pali disease.

The great famine of 1837-38 came in the midst of this epidemic. We know that it did not introduce the typhus, since the fevers had already been epidemic for two seasons. The accounts of this famine are voluminous; and I have already quoted details regarding it in another report.

Details illustrating the character of the fever of 1836 and 1837 in Upper India.

This fever, known as the Moradabad fever, was not confined to Moradabad in 1836. I find the Superintending Surgeon of Agra, writing on 10th June, reporting that a hundred natives are dying daily in Agra and about fifty daily in Muttra from fever, although the troops at both stations are perfectly healthy. From the date of this communication, there is almost the certainty that this was a typhus.

In the Annual Report of the Agra Circle for 1836 the fever is thus alluded to—

"Much fever, attended with jaundice and delirium, prevailed, and was very fatal generally in the district of Bolundshuhur, where the working prisoners were employed, but they do not seem to have suffered anything like so much as the poor villagers, few of whom escaped. Some villages were almost left desolate by the ravages of this fever. On the setting of the rains, the evil became less general."

The Report for 1836 for Meerut, also mentions that this fever reached its climax in May and June.

The Superintending Surgeon at Meerut writes: "A very fatal epidemic, attended by contagion, prevails at Moradabad, the symptoms very nearly resembling those of the yellow fever of the West Indies, and some nearly approximate to those of the plague of the Levant. Numbers of prisoners have fallen under its attacks, and many villages between Bareilly and Moradabad and to the southward, have been depopulated. In Rampore and in the City of Moradabad its ravages were fearful. Generally speaking, May and June have been particularly sickly all over this part of the country, and few places have escaped from remittent fever of varied severity. The sickness has been much felt by the villages between Bareilly and Moradabad, and melancholy results have followed in the cities of Delhi, Meerut, Moradabad, and Rampore. To the northward of that line, it has not committed any marked ravages, although to the southward it has been experienced in several places more or less intensely."

All the districts west of Delhi suffered from relapsing typhus in 1837. Ranken's report and its Appendices contain full particulars both as to the extent of its prevalence and the clinical characteristics of the contagious fevers which appeared at this time over Northern India. To this report I must refer for the details.

Typhus of the Agra jail of the spring and hot months of 1838.

I find that in the spring of 1838 a typhus was introduced into the Agra jail, commencing its attack in the healthiest month of the year.

The Agra Jail necessarily received a famine population at this time, and with these people was probably introduced the originating germ of this deadly fever. The remarks made month by month by the Civil Surgeon record the progress of the fever in his jail:

Remarks for April 1838.—"A very fatal distemper has appeared—a peculiar form of fever that, without manifesting any very violent external symptoms, attacks the head at a comparatively early stage, and has in repeated instances lately carried off the patients within a few hours of their admission into hospital. It is not easy to ascertain the exact duration of the disease at the time of admission, as no information can be obtained from the patients themselves,

* Mahamurree was particularly fatal in Kumaon in 1835, so that it is probable that typhus existed in the plains before 1836; for we know that bubo fever in the Himalayas is almost invariably associated with the presence of contagious fevers in the districts below.

owing to the cerebral complication having come on. Few in whom the cerebral affection has once appeared have ultimately recovered."

Remarks for May 1838.—"Unprecedented as was the jail mortality in the preceding month, that of the present month greatly exceeds it. In spite of the utmost vigilance, and every possible attention on the part of the civil authorities, the disease prevails now throughout the whole jail. Many of these fever cases have survived only a few hours. Out of 64 fatal cases, more than the half have been thus lost within the three first days of their admission, and one died in the jail before he could even be brought into the hospital.

"The constitution of the inmates of the jail seems to be much below the average. Many cases of diarrhœa, even when the relaxation of the bowels was moderate, sank and died in a few days, without apparently an attempt on the part of the constitution to rally or to resist the tendency to death.

Remarks for June 1838.—"Fever has been the source of 33 of the casualties, and in five of these the fatal issue took place within forty-eight hours. Two men died before reaching the hospital; and in almost all, the cerebral complication was established before admission. This arises from the insidious nature of the disease, which often shows no symptoms sufficiently urgent to be noticed by the attendants till the result has actually occurred. When the cases have been received early, the termination of the primary affection has generally been favorable, though in some cases the patients have been ultimately carried off by bowel complaints or pectoral disease. Dysenteric disease and fever continue the chief causes of mortality. Forty-eight deaths have occurred from dysentery and diarrhœa of all periods of duration, from six weeks to two days. In many of these cases, the disease, though rapidly fatal, exhibited nothing in the general symptoms to excite alarm, till the patient suddenly sank exhausted.

Remarks for July 1838.—The mortality from the same causes as before, still continues excessive, the casualties being 66. Dysenteric disease continues unabated; 49 prisoners have been carried off by it.

Remarks for August 1838.—During the present month, the mortality cannot be said to have either increased or abated. From fever the mortality happily continues to subside, the casualties being only 15. The disease has assumed more of an intermittent character than during the months of the hot weather, when the continued or remittent form prevailed. The mortality from bowel complaints still continues unabated, and 50 prisoners have died during the month.

The remarks for August indicate the dying out of the fever at the usual season of its decay.

As most of my illustrations will be taken from the history of the epidemic period, 1859-66, I shall enter more at length into the characteristics of the two fevers which came forward over Upper India in these years—the malarious fever of 1859-60, and the contagious fever which for six years subsequently held its ground.

Epidemic malaria, relapsing fever and famine, 1859-66.

Reports on this epidemic malaria of October and November 1859 were called for by the Inspector General of the Medical Department from the medical officers serving in the Gangetic districts affected. Reports were furnished by the Civil Surgeons of Patna, Behar, Shahabad, and Buxar. A notice of these will be found in the "Indian Annals" for 1860. There is no difference of opinion exhibited in these reports; the writers give the same history, and almost in the same words.

The epidemic of malaria in the valley of the Ganges, of October 1859. Behar Provinces.

The writer in the "Indian Annals," to whom they were handed over for analysis, has grasped the leading feature which distinguished this fever, namely, that it was an invading epidemic. He writes:—"There is, in the first place, a very strong analogy, not to say similarity, between the occurrence of this outbreak and the sudden spread of other endemic diseases through and beyond regions in which they always exist in some degree. Secondly, it resembles the sudden invasion by ague of considerable districts, both urban and rural, of Europe, in which diseases of this class are by no means generally prevalent. And, thirdly, internal evidence in the pathological features of the fever leads to the same conclusion."

The character of the fever itself is thus noticed,—"Its operation on the system and in the production of pathological changes, was precisely that of the ordinary fevers of the country, in all the instances recorded in these papers. Fatal cases in the hands of English medical officers were extremely few, and this brings us to the point, which, in the absence of all other specific characters, we must regard as the chief peculiarity of this epidemic; it is, that, while simple treatment proved so perfectly and uniformly efficacious that the fact is remarked upon in all the reports, the disease unresisted was extraordinarily fatal."

The epidemic commenced earlier in Eastern Bengal than in the Gangetic districts invaded in October. The Civil Surgeon of Rajshahye, writing in the beginning of 1860, appends the following to his Jail Report for 1859:—"The whole district of Rajshahye has during the last five months been very unhealthy. Not one village has escaped the scourge of fever and dysentery, and there is certainly no family in which one or two deaths have not occurred. It is said that so frightful a visitation has not been known for many years."

Eastern Bengal.

The Civil Surgeons of the eastern districts of the North-Western Provinces, of Ghazeepore, Benares and Mirzapore, also recognised clearly the true nature of this epidemic fever in their districts, and the date of the

Ghazeepore, Benares, and Mirzapore.

appearance was, precisely as in the Behar Provinces, the first week of October. Dr. Naismith of Benares, writes:—"So general were the ravages of fever during the months of October, November and December in the city and district of Benares, that few families altogether escaped; and for the time the population generally seemed prostrated by the extent of its inroads. This fever, though not generally fatal, yet proved destructive either by assuming typhoid and congestive features, or by inducing spleen cachexia and visceral disease. The outbreak was the sequel, and, in my opinion, the effect, of a late and heavy fall of rain which lasted for several days in October." As in Behar, the prisoners suffered far less than the free community, Dr. Naismith adds:—"The health of the prisoners even during the sickliest season will contrast most favourably with that of the population generally, both in regard to the prevalence of the disease and the mortality." Dr. Garden, of Ghazeepore, the adjoining district, makes the same observation. He says,—"I attribute the small number of deaths from fever to the favourable circumstances under which the prisoners were placed; which, without doubt, influenced the disease considerably." All of these reports were written at the time, and without intercommunication between the different medical officers. And yet their statements are perfectly harmonious.

Dr. Garden continues:—"On October 6th, 7th and 8th, four or five inches of rain fell, after which the fever became prevalent, in degree, according to the circumstances under which different classes of individuals were placed.* In the districts where everything was favourable to the production and action of malaria, the fever raged most fearfully and most fatally." Regarding the jail he says:—"The fever would hardly have claimed attention for itself on any grounds except perhaps the greatly increased number of admissions, were it not for its evident connection with that which simultaneously raged throughout the whole of this and the neighbouring districts, and which, assuming a typhoid form, proved fatal to a most fearful extent." The fever, as he observed it in the jail, Dr. Garden, thus describes: "In the great majority of cases the symptoms were those of ordinary intermittent fever, and some few cases were remittent. The most marked points about it were the very rapid prostration of the patient's strength, so that in two or three days they were hardly able to move, and the extreme irregularity of the cases, which showed a tendency to change of type, from quotidian to tertian, and *vice versâ*." In the Police Battalion the fever was universal. In one outpost twenty-five out of thirty men were struck down in one day. Some of the police attacked in the district were brought to Ghazeepore, and in their cases Dr. Garden had an opportunity of seeing the pernicious form of the fever,—the same which was ravaging the district. He writes: "The patients were brought in from some distance, and, having been ill a day or two, were semi-comatose or entirely insensible, but not delirious; the pulse was small, fluttering and almost imperceptible, and there were all the symptoms of a rapid failure of the vital powers."

I might quote similar observations made in the Sasseram and Mirzapore districts, but it is unnecessary to do so.

Now, it is essential that there should be no misunderstanding as to the character of this fever of the Gangetic Provinces. From Rajshahye to Mirzapore it was universally recognised and acknowledged to have every attribute of malarious fever; and the unanimity of the medical officers throughout the Gangetic Provinces on this point, is without a single exception. It was a fever unusual in its prevalence, and an invading epidemic,—a fever which showed its manifestations in the mildest form of intermittent, or, according to circumstances, proved so malignant, that in a few days the patient sank into the typhoid of the worst description of jungle fever.

The epidemic of malaria in the Saugor District and other tracts of Central India.

The Deputy Commissioner of Saugor, in a special report on the epidemic of his district in 1859,† gives many details which lead us to remove this fever from the province of typhus, to which the general epidemic of the Saugor District of 1859 has been attributed. He tells us that the early crops of 1859 were remarkable for their great abundance: "Grain was extremely cheap, and I have never, in an experience of nine years, known the mass of the people so well off for food of the best description."

As with the epidemic malaria of 1869, it was during a break in the rains of 1859 that this fever was first noticed, and by this alone we recognise that the fever which prevailed generally was not a typhus. Typhus is dead during the rains, and re-asserts vitality only with the setting in of the cold weather; and before the end of 1859, this fever died at Saugor, as well as in the Valley of the Ganges.

His account of the fever is very much that which is given by the medical officers of the Gangetic districts:—"A sufferer attacked with it would feel listless and disinclined for exertion. Loss of appetite and pains in the limbs were also premonitory symptoms. These were followed at the end of three or four days by fever, which would last two days. The patient was then left in a cold sweat, and in a state of perfect exhaustion, and if the strongest stimulants were not administered, and the sufferer watched with the utmost attention, the vital powers gave way, and death ensued. Affections of the lungs and copious bleeding from the nose were also attendant symptoms of the disease."

As in the east, the results of treatment were successful:—"In the majority of cases in which the native doctors sent out had a fair chance, and the sick took the stimulants, life was saved; but in too many instances the people objected to this form of remedy, and

* Dr. Sutherland, of Patna, and indeed all the medical officers who had experience of the fever, recognised the association of the fever with the meteorology of these days.

† Selections from the Records of Government, North-Western Provinces, 1861, Part XXXV.

wanted to adhere to those prescribed for ordinary fever, such as they had hitherto been accustomed to."

Captain Browne continues:—"Their own medicines failed, and death was rapid and certain. Whole families were cut off, and villages nearly depopulated. Young and old alike suffered, and as the sufferers (although ailing for days) were probably only confined to their houses for two days before death, the usual report of the disease from the villages was, that the fever attacked a person one day, and he died the following day."

And the distinction in season is thus drawn:—"This epidemic lasted with force until 1st November, and from that period, as the cold weather set in, its violence abated and it gradually disappeared."

The fever was not confined to any particular class:—"It was most fatal among the poorer classes, those who were ill-fed and badly housed. The higher classes did not escape, but the disease did not visit them so frequently, and their better habits of life rendered them more able to withstand the advances of the attack."

In the Nerbudda Valley.

Again we have this epidemic linked on geographically with the fever of the Mirzapore District through the Native States intervening. It appeared also in Punnah, and in the Native States adjoining. Its presence as an epidemic is traced also in Dumoh, in Chandeyree, in Nursingpore, in Bhopal, and in portions of Scindiah's territories. And the native carriers informed Captain Browne that, taking Saugor as a centre, it raged for 100 miles all around.

As in the Valley of the Ganges, the oldest inhabitants said that they never remembered such a disease before. The loss of the Saugor District is estimated at 23,000, a vast number of whom were cultivators, who, from being exposed in their fields to alternate wet and intense heat, appeared peculiarly liable to the fever.

Comparative immunity of the jails of all districts affected.

The same phenomenon found in Behar and Benares held good here. The jail population who of all others most ready to succumb to typhus, escaped altogether, from being confined within walls and being shut up at night.

The universality of the fever was also noted. The Deputy Commissioner says:—"I found that it had equally ravaged the closely-inhabited villages and the small hamlets situated in most salubrious localities. In November, when I commenced my annual tour, I visited many of the villages in which the fever was still thinning the population. The people were cast down and disheartened to a degree; and they told me that they had even been obliged to dispense with the usual ceremony of burning their dead, as there was no one who would fetch wood for the pyres, owing either to sickness or terror."

Loss of the population during an epidemic of malarious fever: Punjab, 1869-70.

And all of this mortal sickness from Rajshahye to Bhopal, was compressed into a few weeks; for even in the South the deadly manifestation of this fever did not commence until late in the rains of 1859.

For the area of the epidemic of 1859 I cannot give numerical results. What epidemic malaria implies may, however, be inferred from the loss of a province in a succeeding epidemic. In the Punjab in 1869 and 1870, more than half a million of the inhabitants were carried off in the two years:—

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	For the year.
1869	...	...	...	...	...	...	11,582	15,807	24,010	56,623	59,917	35,189	272,946
1870	23,396	16,148	15,854	14,561	18,267	15,885	13,784	15,595	31,397	44,221	36,332	29,763	275,093
													548,039

Epidemic malaria of 1859 geographically limited in the west. The jails affected by relapsing fever were beyond this limit.

The epidemic malaria of 1859 was cut short in its westward advance. The limiting line is that defined on our cholera map of 1868, which corresponds almost exactly with Jameson's record of the distribution of epidemic cholera up to the end of 1817.* In 1860, also, the advance of the fever epidemic was up to a definite line, the same which marked out the famine area of 1860-61, and up to which also the cholera of 1860 moved and found its further progress stopped.

It has been suggested that the importation of some portion of the fever-stricken population of Central India introduced the source of the relapsing typhus which appeared in the jails of the North-Western Provinces in November 1859. The jails affected were all beyond the geographical limit of the malaria epidemic. Many no doubt did receive prisoners from affected districts; but against this supposition there stands the fact, that, in the spring of 1859, I can trace contagious fever in several of the jails of the North-West within which relapsing fever became epidemic on the setting in of the cold season of 1859-60.

Thus eight fever deaths occurred at Meerut in May and June 1859, which I take to be the first indication of the commencement of the great mortality which continued till June 1862. And in the Budaon Jail the mortality from yellow fever from March to July ran as under, surely marking the fact that the fever was of the typhus group:—

March.	April.	May.	June.	July.
1	2	7	4	...

This contagious fever of May and June 1859 could have had no connection with the fevers of Central India, whether contagious or malarious.

* The cholera of October 1877, which extended from the Ganges to Western Malwa, had a geography very similar; differing in this, that, as in 1863, Agra and Muttra were within the northern limiting line.

Dr. Rice was of opinion that the fever which he saw at Saugor in this year was in many cases a typhus. From the report of the Deputy Commissioner I think it may fairly be concluded that the fever affecting the district generally was purely a malarious fever. It is quite possible, however, that Dr. Rice did see typhus in Saugor early in 1859. In the Raipore Jail of the Central Provinces, I find that in the end of March a deadly fever broke out. Of nine cases in this month eight were fatal, and 21 prisoners in all died. The Civil Surgeon, writing in April, says, that although fever was very prevalent, the cases in the civil hospital did not take on the same severe character, except in the case of two or three pilgrims.

The relapsing fever of 1859—66 probably received its main impetus from the occurrence of famine in 1860-61: its geographical distribution.

Whatever was the cause of the commencement of this typhus, it got a direct impetus from the events of 1860-61; and for six years from the end of 1859, Northern and Central India and Oudh retained the epidemic. There is an uninterrupted history of typhus, appearing, like smallpox, with the cold weather and disappearing in the hot, year by year, from 1860 up to 1867.

The mortality from the typhus fevers of this period was not confined to the jails. We have the record all over Upper India of the same diseases among the population in these years. No jail below Allahabad has localised this fever, for the 28 deaths at Calcutta in 1860 were in a gang brought down for transportation. But in the Central Provinces, Nagpore, Raipore, and Jubbulpore Jails were attacked in 1864—66; and the Oudh Jails suffered in the same years. From Rohilcund and Agra up to Peshawar, year after year the pestilence showed its presence, recurring in some of the great jails three times between 1860 and 1866.

Meteorology predisposing to the development of diseases of the typhus group in India.

It would seem as if in India the same meteorology which ushers in a famine predisposes to typhus, even before want becomes manifest. In writing the following sentences, Colonel Baird Smith had no idea of associating contagious fevers with the famines which he is describing, and yet, as they stand, they almost appear as if written with this view. He says: "Between 1819 and 1837 there intervened a series of very indifferent seasons. The famine of 1837-38 was in fact the crisis of five or six years of great climatic irregularity. Such irregularity, indeed, seems to be a characteristic preliminary sign of a complete suspension of the usual rainfall, and I trace it more or less distinctly through the series of greater droughts. Similarly, 1858, 1859, and 1860 gave cause to fear, from their very abnormal character, that a like climax might be impending in 1861."

Typhus periods are characterised by the prevalence of various contagious fevers, each of which is a true natural variety.

In all epidemic periods several distinct varieties of fevers of the typhus group appear.

The earliest accounts of the typhus of 1859-60 describe it as a relapsing fever. But in all epidemic periods, while this type prevails, and may indeed be regarded as the mainstay of the epidemic, many differing varieties come forward. How or why these assume the forms which they present, it is impossible to say. What to the epidemiological observer is of extreme importance is, that when once produced, each variety of typhus produces its like.

The occurrence of epidemics of malaria in connection with diseases of the typhus class suggests the necessity for keeping the fact in view in studying pandemic fevers.

Were this etiological fact recognised in nosological arrangements, and were typhus epidemics studied from this point of view, much unnecessary difference of opinion might be saved. The pandemic appearance of fevers, illustrated by Mr. Lawson, seems to be in epidemiology nearly as consistent as the appearance of cholera invasions. To this I have alluded in my Cholera Report of 1872, and I need not recur to it further than to say that in investigations into these pandemic fevers, whether of Asia, Europe, or America, the grand distinction between fevers which are soil-born and aerially distributed, and fevers spread through communities by reproducing their like in the human constitution, must never be lost sight of. The ague of Russia as well as the relapsing fever, may represent the epidemics of the same class preceding them in India; and the same difficulty of discriminating between the two is not unlikely to arise and to give origin to diversity of opinion, which with a proper appreciation of the actual facts would probably be avoided.

The Aspects in Communities of Fevers of the Typhus Class.

A continued typhus occurring in the spring may re-appear as a relapsing typhus in the next cold season.

Continued yellow typhus.

Most of the reports on typhus fevers tell how, in many cases, the fever proved fatal in two or three days. Such a case as the following, where the man died two days and a half after admission, illustrates how deadly typhus may prove. It occurred in 1867 in the Nimar Jail. Three cases among the prisoners in hospital immediately followed, of which two ran a similar course, and the patients died within three days: "On the evening of the 20th May, a man working in the jail buildings was admitted with fever. On the following morning he was found lying quite helplessly on his side, breathing hurriedly. He appeared heavy and stupid, but could be roused to answer when spoken loudly to. He made little complaint. His eyes were dull and suffused, and even at this stage had a jaundiced tinge. At this time he had been twelve hours only in hospital.

"On the following morning he was much worse, quite stupid, and delirious. The tongue was dry, hard, mahogany-coloured and tremulous. He had vomited blood, and bled freely from the nose. The heart's action was rapidly failing. The breathing was stertorous. The skin

was very hot and dry, emitting a most powerful and offensive odour. The whole body was more or less coloured by jaundice, and the conjunctivæ were deeply stained. He rapidly sank. The following morning the body was immensely swollen and discoloured, and so putrid as to render it impossible to make a *post-mortem* examination."

The germ of such a fever as this, which naturally terminates in June, might survive in an aborted form to become the origin of a great outbreak of relapsing typhus, beginning when the season normal for the re-appearance of typhus came round. As an instance, in the end of November 1864, true relapsing typhus burst out in the native jail at Jeypore, and 189 prisoners died.* The medical officer says expressly, that the peculiarity of the fever of 1864-65 was, that it assumed the recurring type: "No less than 85 patients were attacked three times, out of which number 19 died."

This outbreak was the re-development in a milder form, of a deadly yellow continued fever which prevailed in the year previous. Its severity may be judged of by one sentence from the Jail Report of 1863:—

"There were 11 deaths, which took place suddenly in the jail before they could be admitted to hospital: these occurred at the time when the epidemic raged at its worst, when the first and second stages appeared simultaneously, and death took place suddenly from convulsions and black vomit."

In one month, in December 1863, there were 255 admissions and 66 deaths from this yellow fever in the Jeypore Jail.

The coincidence of the occurrence of cases of yellow continued fever with the relapsing typhus of Scotland of 1842 was well recognised. Dr. Arnot, of Dundee, says: "The similarity of the symptoms during life, and of the morbid appearances observed after death, so nearly agree with the description of the yellow fever of the West Indies, and with the minute account of the Gibraltar epidemic given by Louis, as to leave little doubt in my mind that the only difference between these diseases, if difference there be, is a difference in degree and not in kind."†

The variety of typhus in which the force of the poison is thrown on the lungs: 1815, 1836, 1853, and 1865.

In all epidemics, the deadly form comes forward in which the typhus poison destroys exactly in the manner of certain varieties of snake-poison. In the last epidemic this terrible form of fever threatened to become general over a wide area in Central India, all round Jhansi, Morar, and Seepree. In May 1865, I brought the fact to the notice of the Sanitary Commissioner. When the necessity for dealing immediately with so serious and wide-spread a pestilence was urged, I suggested the probability that before any measures could be taken the disease would have become extinct, as the season of its death was at hand. And so it proved; for the disease totally disappeared shortly afterwards.

It is very necessary to view this variety of plague as a distinct one; and, therefore, I add a few extracts to show how for these sixty years, and through four epidemics, it exhibited itself as an appreciably distinct variety:—

Mr. Gilder, Ahmedabad, 1820.

"The natives clearly distinguish this type from that which affects the glands; they call it the expectorating disease. Both types are similarly fatal in their effects, and may only be aggravated varieties of the same disorder. It is described as exhibiting the under-mentioned symptoms:—high fever, attended with burning and excruciating pains about the scrobiculus cordis, skin intensely hot, with a feeling as if the body within was on fire; hiccough with deep and oppressive breathing ensues; there is a pricking sensation all over the body, as if it were penetrated by pins; considerable pains in the chest and joints, and about the navel; delirium, with great anxiety and thirst follow: at length the patient hawks up clots of blood, the difficulty of breathing increases, and death generally occurs on the second day of the attack. From the limited experience I possess of its nature, I am inclined to think it an aggravated description of typhus fever rendered more terrible in its effects from local causes: it is the type which at present most prevails."

Mr. MacAdam's report, Kutch, 1815.

"In many cases hæmorrhage from the lungs took place, which was almost always a precursor of death. There was a description of cases distinguished by fever and hæmorrhage, apparently from the lungs, without buboes; these were reported to be as surely, and were more speedily, fatal than those with fever and buboes. This had been the most common form of the disease at first, but lately had rarely appeared."

Whyte's report, 1817, Guzerat.

"I was told that some were suddenly taken ill in the midst of their usual avocations; that, while conversing, in the middle of a sentence, they would fall down, blood come from their mouth (not in any great quantity), and death would immediately follow. After sufficient allowance for exaggeration, enough still remains to show how suddenly fatal sometimes its attacks have been. The symptoms, in general, were such as denoted nervous debility, inability to walk or stand after the first day, delirium, or wandering in the mind, and a very weak pulse. The stomach and bowels were not remarkably deranged, and the tongue was only coated by a white fur; hæmorrhage was the only symptom which could be supposed to arise from a putrescent state of the fluids. In women with child, abortion always followed attacks of this disease."

Mr. Maclean, to the Superintending Surgeon, Rajpootana. Fever of 1836.

"In other cases inflammation of the lungs comes on the first or second day of the disease. The patient complains of acute pain of one or other side, or behind the sternum, great difficulty of breathing with short dry cough; usually on the second or third day, a small quantity

* How many of these died from the fever I have not returns to show.

† Arnot, quoted by Graves, vol. I, p. 301.

(rarely more than half an ounce) of florid blood in small coagula, is expectorated. In such cases buboes are not commonly observed, though they do occasionally co-exist with the inflammation of the lungs. The mortality has been so great among those in whom the lungs were affected, that a person now on seeing blood in his sputum gives himself up for lost."

Rohilcund epidemic of 1853.

Native reports mention, that at Rampore the people attacked threw up blood almost at the first onset of the disease, and died a few hours afterwards. If this account can be depended on, then we have here the description of the "black death," or worst form of plague, described by Hecker in his "Epidemics of the Middle Ages." *

Surgeon-Major Tresidder, Jhansi, April 1865.

"A severe and mortal disease is prevalent among the natives. A shivering fit is succeeded by a hot skin, and then hæmorrhage from the nose and vomiting of dark-coloured blood takes place, and death rapidly supervenes. I have examined this disease, and am of opinion that it is a severe form of fever occurring in patients who have scurvy, in whom the mucous membrane allows the blood to pass through during the hot stage. This state of scurvy is now very common, and I think it is owing to the poor not having had their usual and necessary supply of green vegetable food in consequence of the very dry season which has passed. A vast number are dying daily from the disease: generally 24 hours suffice to kill."

Assistant Surgeon J. H. White, Jhansi, April 1865.

"A very curious and fatal type of fever is most prevalent among the natives of the entire district,—intermittent fever accompanied by chest affections, and profuse epistaxis and hæmoptysis, and also vomiting of dark grumous coffee-coloured blood. I find that if you can get the patient to perspire profusely before the epistaxis comes on, that he usually recovers."

Surgeon Manifold, Her Majesty's 34th Regiment, Morar, April 1865.

"Typhus fever of a low asthenic type, is exceedingly prevalent among the civil population throughout the district, especially in the vicinity of the Lushkur and city of Gwalior, where as many as 50 deaths a day are reported to have occurred."

Yellow contagious fever of the north of the Bombay Presidency of 1865.

While this fever of Central India was in progress in April and May 1865, the north of the Bombay Presidency was affected by a typhus epidemic. The accounts were very alarming, and were taken to imply the existence of the buboe plague. The outbreak, however, was evidently yellow relapsing fever. The swelling talked of was the sudden enlargement of the liver, which causes the characteristic pain over the epigastrium, and was not either buboe or carbuncle as reported. But here also, as in Central India, the typhus had died before the medical officer sent out from Deesa arrived. He reported that the fever had been a malarious remittent, giving rise to enlargement of the liver, and that the mortality had been excessive. In one village visited, 100 out of 1,200 inhabitants had died within a month; but there was nothing, according to his statement, to indicate resemblance to a contagious or mortal pestilence.

Bubo plague of Rajpootana and the Himalayas.

For clinical details regarding the typhus characterised by buboes and other glandular swellings, often accompanied with petechiæ and complicated with the spitting of blood as in the last-mentioned variety, I must refer to the Bombay reports and Ranken's work, and to the Mahamurree reports of Rennie, Stiven, Pearson and Francis. In our time, Mahamurree reappeared along with the typhus of the jails in the end of 1859, and was epidemic over Ghurwal in the spring of 1860. At the time that Dr. Ewart treated typhus in the Ajmere Jail, the appearance of the bubo variety of typhus was officially reported by the Rajpootana Political Agency. On 26th April 1856, Dr. Kirk again reports its appearance 40 miles north-east of Ahmedabad. He adds: "I must bring to your notice that there has been no rain to affect the climate for nine months, not since July of last year, and this circumstance might have lessened the produce of the cold-weather crops."

Typhus seems always imminent in this situation. As late as 1871 we read in a report on the hilly tracts of Meywar, that in April the *Guzerattea rogue* had appeared—an affection of the chest never entirely absent from the district.

How relapsing fever shows itself in the European as contrasted with the native. Pneumonic typhus.

I wish, in placing side by side the two cases which follow, to show how the fever poison in the same station, operating at the same time on Europeans and Natives, produced varying results. In the Europeans petechiæ and vibices were remarked, and the Surgeon, although he does not call the disease relapsing fever, and returns his fatal cases as pneumonia, says that the men relapsed during convalescence from remittent fever and died with pneumonia as the chief complication. The other report is valuable as showing the difference in manifestation in a free as distinguished from a jail community; and it analyses well many of the leading features which are often lost in consequence of the intensity of jail outbreaks.

The native regiment and the European regiment stationed at Ferozepore in the spring of 1864, were simultaneously affected; and this was the history in the two bodies.

Relapsing fever in a Native Regiment.

The relapsing fever of the native regiment is described by Mr. Veale as under:—

"Relapsing fever affected the regiment in the months of March, April, May and June.

"The cases which first came under my notice seemed to differ for the first day or two, scarcely at all from common intermittent fever occurring in debilitated subjects. The first circumstance which specially attracted my attention, was sudden and alarming exhaustion,

* This typhus was coincident with relapsing fever in the Bareilly Jail in May 1853.

which came on about the third or fourth day, and sometimes on the fifth or sixth day of the attack. In several instances, within a few hours, the pulse sunk so as to be barely perceptible; and the features became dark and sombre, and of a cadaveric appearance. On these symptoms followed subsultus of the tendons, tremors of the tongue, hiccough, incessant vomiting of a bilious watery fluid, and occasionally attacks of sudden and severe epistaxis. In other cases again, the fever continued from day to day with barely a trace of remission; the tongue was dry and parched; there was continued vomiting, and the heat of the skin was intense. The pulse was small and feeble; and it gradually became tremulous and indistinct, and extremely quick; and with this, the patient would be seized with sudden and acute pneumonia or bronchitis. In another series of cases, the attack was exceedingly sudden. The patient was seized all at once while in the performance of some duty. For example, a man in most robust health, was attacked whilst drawing water from a well; another who on the previous evening was able to perform his duties as a soldier, was seized in the morning and before night was a corpse, and this man was considered one of the strongest in the regiment.

"The rigour which in such instances marked the onset of the disease, was rapidly followed by intense and ardent heat of skin, severe pains in the limbs and loins, frontal headache with vivid flushing of the face, suffusion of the eyes, throbbing of the carotids, extreme thirst, and exceedingly rapid pulse. Soon to these symptons were added vomiting of a bitter watery fluid, evidently in some cases containing bile. The vomiting in some cases was so frequent as greatly to harass the patient; and it was accompanied by extreme tenderness on pressure, both in the epigastrium and right hypochondrium. Gradually jaundice ensued, first faintly traceable in the conjunctivæ, but afterwards suffusing the entire surface of the body.

"For the most part the febrile action never entirely intermitted, though in nearly all the cases a remission occurred about 4 o'clock every morning, and continued about two hours. This remission was followed by an exacerbation of all the symptoms.

"From day to day the patient lost strength; the pulse became weaker, and more and more quick; the tongue lost its moisture and became brown and fissured; sordes formed upon the teeth; the jaundice deepened; the burning heat of skin rather increased than diminished; the vomiting grew more urgent; tenderness and enlargement of the liver and spleen continued; the bowels remained constipated, and the loss of appetite amounted to absolute loathing of food.

"Sometimes this downward progress was so extremely quick as to afford little or no opportunity for the intervention of medicine. For, as above stated, one man died of the disease certainly within 36 hours after the attack; and in another man, three days sufficed to bring the disease to a fatal termination."

"But a remarkable feature of the disease, not however constantly exhibited, was a spontaneous subsidence of all the symptoms on certain days; which after a time, I began to regard as critical days, namely, the 5th, 7th, 9th, 14th, and 21st. The patient expressed himself as quite well, though feeling weak. But while the patient would apparently be convalescing in the most satisfactory manner the symptoms of the disease would return without any cause, and continue, though much less severe than during the primary attack. These secondary attacks likewise terminated within 7, 9, 14, or 21 days; ordinarily, however, they lasted no more than 5 days.

"I should remark that the spontaneous resolution of the disease was generally accompanied by profuse sweating. It was further characterised by a remarkable coldness of the skin; which seemed to the touch as if the body had just been removed after a long immersion in very cold water. With this, the pulse fell so as to be about 50 per minute, and it was so feeble and flickering as to excite the greatest alarm for weak subjects; and the countenance also was expressive of extreme exhaustion. In fatal cases not the faintest trace of perspiration was perceptible during the course of the disease; and, what was very remarkable, the burning heat of skin continued when the pulse at the wrist had ceased, and for some little time after death. In one case there was delirium with great restlessness and jactitation; in another, the delirium was followed by sleepnessness, and the patient remained without ever closing the eyelids, for upwards of 72 hours. The same man was obstinately silent, and endeavoured constantly to get out of bed, and he refused to take anything except from my hands. That he was conscious was shown by his ready obedience to my orders, and by his invariably selecting me when I came to his bedside.* "

The fever simultaneously going on in the same cantonment is referred to by the Surgeon of the 7th Fusiliers, in these terms:

7th Fusiliers, Ferozepore 1864, Surgeon Hendley.

"After the arrival of the Regiment at Ferozepore and until the weather began to get hot the cases of fever were in no way peculiar. But towards the end of May, the fevers were observed to be much more obstinate, and to present unusual symptoms denoting great constitutional debility. In the cases of remittent fever the symptoms were the most serious. Such fever commenced as intermittent, and became remittent after a few days. From the time of admission the pulse was very feeble, and the bodily strength entirely prostrated. The heat of the body was

* Compare the case of Herophon, as given by Hippocrates:

"He was seized with an acute fever, aggravated on the 5th day and attended with distension of the hypochondrium and spleen, and by constipation. He was delirious and deaf.

"On the 9th day he sweated; the crisis took place, and the fever ceased.

"On the 5th day afterwards the fever relapsed, and the spleen became swollen. On the evening of the 3rd day afterwards he sweated, and the spleen diminished; and finally the crisis took place on the 17th day. He had no disorder of the senses during the relapse."

of a peculiar tingling description, and discolourations of the skin were visible early in the course of the disease, in some cases occurring as petechiæ simply, and in others as large bruises with broad and painful bases.

"In some of the worst of these cases, there were regular symptoms of scurvy after the fever had gone; spongy and bleeding gums, ecchymosis, and anasarca of the lower extremities, and hæmorrhage from the nose and bowels.

"Recovery was very tardy. Twelve of the sufferers were only capable of performing light duty six months after their first attack, and a few are even yet unfit for duty of any kind, and so they are likely to continue for some time to come.

"There was a great tendency to congestive inflammation of the lungs, liver, and spleen, and to neuralgic affections: for months after the fever had disappeared, patients continued to suffer from sciatica, and even now on the occurrence of any slight ailment, the tendency becomes developed.

"In remittent cases quinine seemed to do more harm than good. It seemed that the fever wore itself out, and the evident indication was to support the strength.

"In bad cases when the strength was gradually failing and symptoms of congestion of the lungs were becoming daily more apparent, permission was obtained to send the patients to Kasauli; and although they travelled in the middle of June all ultimately recovered.

"In all four deaths resulted from this disease; one fatal case is shown in the return as remittent fever; the other three patients *relapsed after convalescence*, and as they presented marked symptoms of pneumonia, their cases were returned under that heading."

Pneumonic typhus of the 38th Regiment. The same variety in jails.

Another British regiment was similarly affected, while relapsing fever prevailed among the native troops and in the jail; Her Majesty's 38th Regiment suffered at Delhi from this fever. The fever is described as of malarious origin, the symptoms being regarded as those of remittent or continued fever. The report, however, proceeds to allude to the lung complication as something not usually seen in the course of a malarious fever, in these terms: "A very bad symptom, and one which I never before observed at any station in India, namely, atonic inflammation of the lungs, appeared in many cases of this malarious fever, and nearly all the fatal cases were consequent upon this complication. The symptoms in each case were similar. A color sergeant aged 26, of most temperate habits, on the 5th day after admission from simple febrile symptoms, was attacked by general pleuro-pneumonia. Four days afterwards symptoms of typhus set in, delirium, sordes on the teeth, retention of urine, and involuntary evacuations; and he died on the 21st day from admission." The appearance of the lungs as seen after death, is described, and the report concludes:—"The above disease, although in some respects resembling typhus fever, was entirely of malarious origin."

It is obvious that such a deduction, if erroneous, may lead to very serious results; and in future when typhus is known to exist among the general population such cases should be well studied before such a conclusion is arrived at, and the possibility of contagion ignored.

I have already spoken of the pneumonic form of typhus as shown in the Lahore and Mooltan jails. This pneumonic form was imported into the Montgomery jail in 1870.

These fever cases were thus described:

"Fifty-nine cases of fever assumed a remittent character with badly developed symptoms. The paroxysms were masked; the patient was restless, the hands tremulous, and the skin and conjunctivæ yellow. In these cases I found pneumonia present; and yet during the first and second stages there was no difficulty in breathing, and scarcely any cough. This febrile pneumonia did not come on till from seven to ten days after the commencement of the fever."

Typhus prevailed in 1863 in the Amritsar district, and, in 1864, assumed a deadly dysenteric type in the jail (see General Table illustrating jail typhus towards the end of this chapter). With this typhus I have always associated the following case. As far as my experience goes it stands alone; I know of no parallel in the medical history of the British Army within the last 20 years.

Epidemic dysentery (? typhus) of H. M's. 19th Regiment, Amritsar, 1863.

In the detachment of Her Majesty's 19th Regiment, stationed at Amritsar, in the week ending 14th August 1863, epidemic dysentery was reported, and before it ceased 19 men died, besides women and children.

The outbreak is thus described in the returns, week by week, from 14th August to 4th September, when it terminated:

"Acute dysentery has assumed an epidemic form during the week. Of the seven cases remaining from last week two have died, one on the 4th and the other on the 7th day of the disease. Both were treated by large doses of ipecacuanha when first admitted, but no decided advantage was derived from it. It did not alter the character of the stools which were chiefly blood and vitiated dark fæces. A low typhoid condition was observed in these cases from the beginning, with brown tongue, quick and feeble pulse, insomnolency and a tendency to low muttering delirium. The latter symptom generally set in 24 hours before death; the patient previously telling you he is quite well, passed gradually into coma. Of the other cases at present under treatment, one man and one woman are almost in a moribund condition, although all kinds of remedies have been tried. The *post-mortem* examination revealed extensive ulceration of the whole tract of the colon. In one case there was diffused peritoneal inflammation, and the rectum was also perforated; there was no ulceration of the small intestines. The liver in both cases was extremely enlarged, and the structure completely disintegrated. The spleen in both cases resembled the spleen of remittent fever; it was as large as the right lobe of the liver, and as soft as clotted blood.

Week ending 14th August.

"Twelve cases of acute dysentery (typhoid) remained from last week, and ten were admitted into hospital during this week: of the former five have since proved fatal. Four of those were men admitted during the present epidemic, and one was a patient attacked in hospital.

Week ending 21st August.

"Four cases of dysentery have been attacked with symptoms of acute hepatitis during the week. Three of these cases suffered from the epidemic form of the disease, and were convalescent when attacked. The patients who do get over the acute symptoms are so reduced that their convalescence is very slow.

Week ending 28th August.

"Two men have died during the week returned under the head of Hepatitis. In both cases a large abscess was found in the left lobe of the liver. The type of the epidemic has undergone a marked change during last week. The alvine discharges containing more feculent matter and less blood. The great prostration of strength and insomnolency formerly dwelt on, is now seldom observed, and all the cases at present under treatment are doing well."

Week ending 4th September.

The objection which naturally suggests itself is not altogether inconsistent with the possibility of typhus poisoning in this instance. Change of type might be anticipated with manifestation at an abnormal season; just as the pneumonic type predominates in the spring in Northern India, so in the season normal for the development of bowel complaints, we should not be surprised to see the typhus—here called remittent fever—attended with dysentery as the leading feature, and the one which would tend destroy the identity of other symptoms. It is right to mention that several of our worst outbreaks of contagious fever have shown themselves as early as August in the Punjab; for example, the Umballa outbreak of 1861. And again, as I have had occasion to show, a typhus poison introduced in the spring, which is, to become the parent of a great outbreak six months later, smoulders, but does not die; its manifestation is kept back, but the effects are shown, although in an aborted form.

The possible significance of contagious dysentery.

The case of the jail of this station, Amritsar, which suffered in 1864, affords a perfect illustration of the introduction of the poison, of its repression and of its coming forward in power with the typhus season in October. And what is also most worthy of note is, that this poison was the offspring of a pure relapsing typhus, the same so thoroughly and well described by Dr. Gray. It was imported direct from the Lahore Jail, and it put on a distinctly dysenteric type, approximating in its character to the disease of the detachment of the 19th Regiment in 1863.

Dysenteric typhus of the Amritsar Jail, 1864.

Dr. Atcheson, Civil Surgeon of Amritsar, writes:

"As early as May last, I protested against the system of transfers, and brought it to the notice of the authorities of Amritsar, warning them of the consequences which the sequel too fatally exhibits. As early as June last, I noted the peculiar character of the fever admissions, and imparted my suspicions as to their nature to the Inspector General of Prisons. But it was not until October that the fever became jail typhus of a virulent and infectious character.

"The prisoner attacked had a listless, haggard look, wan eye, and great and rapid loss of muscular power; a thick-coated tongue, dry harsh skin, which soon put on a yellowish tinge, and this with a deeply-coloured conjunctiva showed that the liver and intestines were attacked. Dysenteric purging, often of pure blood, followed, and the patient rapidly sank without an attempt at rallying.

"The *post-mortem* appearances were sloughing of the intestines, particularly the *caput cæcum*; in many cases the whole large intestine was involved with deep ulcers, very often with perforation and peritonitis."

Some of the worst dysenteric outbreaks of former times in our European regiments may, I think, be traced to unsuspected poisoning by typhus. The following I take to be such a case. It must be kept in mind, that at the time of its occurrence, 1852-53, the relapsing fever was epidemic over Northern India, and typhus was prevailing in Rohilcund. In the same year, which was not a malarious year, the Lahore jail lost 158 prisoners from fever, and 44 more died before the outbreak terminated in the spring of 1853. From bowel complaints, probably sequelæ, 161 died. Thanesur jail lost 64 prisoners from fever and dysentery; Delhi, 54; Goorgaon 31; and Sirsa, a very healthy jail, 20 prisoners from fever.

Contagious dysentery and fever in Her Majesty's 96th Regiment at Lahore, in 1852 and 1853.

Her Majesty's 96th Regiment was the regiment which was stationed at Mecan Meer in these years, and the following extracts are taken from the annual reports of 1852 and 1853:—

Her Majesty's 96th Regiment, Mecan Meer, 1852.

"After attacks of remittent fever the men remained jaundiced; but still it was thought that recovery would be accelerated by removing them from a hospital crowded to excess. Many in this state contracted dysentery. Out of 344 cases treated 40 have had a fatal termination; but it is to be borne in remembrance, that in these cases the healthy European soldier was not the subject of treatment, but the weakly and debilitated convalescent from fever.

"The remittent and continued type of fever has been of a low typhoid character, deserving the name of low typhus. The tongue is black and dry; the skin is at times hot, and the face bathed with cold perspiration; the powers of life are depressed; the skin is sallow or jaundiced; there is bleeding at the nose and the stools are melanotic.*

Her Majesty's 96th Regiment, Mecan Meer, 1853.

* Petechial patches on the skin are also noticed.

"Sometimes these cases have merged into hæmorrhagic dysentery. The stools are large and watery, of a brick-dust red colour, and finally assume a darker hue with black sloughs floating on the surface. No patient has recovered in whom these gangrenous sloughs have persisted for any time.

"Some of the patients have never suffered from intermittent fever."

Contagious dysentery of former times not now met with.

Dysentery of Dinapore of 1849-50.

The possibility of dysentery, whether due to a typhus source or not, becoming contagious, is apt to be overlooked in these days when all is so much changed, and, therefore, I add the following to impress the fact:—

Dr. Taylor, of Her Majesty's 80th Regiment, writing regarding the health of his regiment at Dinapore in 1850, says:

"I cannot but consider this type of dysentery to be of systemic origin, and essentially of a febrile nature. The febrile action determines upon the mucous membrane of the large intestines and produces hæmorrhage and sloughing, as in yellow fever, and in the severer or epidemic varieties of remittent fever. Stimulants and opium alone offer themselves as resources in the severer cases. It is astonishing how much opium is required to produce any effect in these cases; 15 to 20 grains may be given daily without producing stupor or even headache.

"Before concluding, I must again allude to the probability of this disease being of a contagious nature. Of the two men who attended on Assistant Surgeon Murphy, one died shortly after of this dysentery; and while I am writing, the Hospital Sergeant has died of the same disease. In this case, however, the febrile symptoms having been predominant, the death has been returned under Fever."

I find in my notes the remark that this contagious dysentery of Dinapore was a disease of the hot months—April, May, and June. In an earlier part of this paper, speaking of a spring dysentery of the Allahabad jail of 1870, I stated that the fact was sufficient to lead to the conclusion that the dysentery was the manifestation of a contagious disease, and not primarily a bowel affection.

I know of only one case in which it would appear that typhus of an enteric type was developed. In all reports on relapsing fever the fact is specially recorded, that the lower portion of the small intestine was not implicated. It was relapsing fever which was at the very same time prevailing in many jails of Upper and Central India and of Oudh. But in the Goojrat jail return for one of the spring months of 1865, I remarked that the fever was described as attacking the lower part of the ileum.

Enteric typhus (?), in which the lower portion of the small intestine is alone involved.

Dr. Johnston, then in medical charge, states distinctly that the disease was a typhus, and not a typhoid fever. It was contagious, for three of the hospital establishment were attacked. In seven cases there was pleuro-pneumonia, and in two of these, which were fatal, no enteric lesion was found. There was not a single case of relapse. There was no rash. The aspect was that of typhus, not of enteric fever. Recovery and death were more speedy than in enteric fever.

Dr. Johnston gives a typical case, fatal on the tenth day: age 34; ten months in jail, and has never been in hospital. Admitted 12th May; died 22nd.

"On admission, respiration natural: no thoracic dulness. Complains of pain and heat about the umbilicus and right side of abdomen; liver enlarged; spleen normal. Yellow, muddy countenance and injected conjunctivæ.

"On second night, delirious. Delirium continued till sixth day, when the fever became adynamic. The abdomen then became distended; rumbling in the right iliac fossa was distinctly audible, and yellow-green flocculent evacuations were passed in rapid succession, more or less sanguineous. The pulse became depressed; the skin partially lost its arid feeling, and there was a tendency to perspiration which was followed by extreme prostration. In this state he continued, and death by coma occurred on the tenth day. During the last few days his intellect became more and more obscured, but on pressure over the right iliac region he always cried out."

On *post-mortem* examination, ulceration of Peyer's patches and solitary glands was found. The upper portion of small intestines was healthy. The large intestines were normal in appearance and consistency. There was no ulceration.

Once more I would urge the danger of the theory which holds that relapsing fever is primarily due to the degeneration of a malarious fever, and caused by evil local conditions. There may be a certain amount of truth in the theory, but practically the local observer has nothing to do with such a consideration; and where active measures have been delayed on such theoretical grounds, disaster has invariably followed. Relapsing fever is the most insidious, and the most contagious of diseases. In the individual constitution it may give not a single indication of its presence until the man is suddenly struck down as with a blow. The inspecting officer ranges his prisoners and examines them with care, and, notwithstanding, men healthy at the morning parade will be dying before evening. In a community the germ is introduced often in the spring, and is overlooked,—a mild and by no means a deadly fever goes on through the rains, and before the medical officer suspects, the entire body is saturated with typhus poison. The same has occurred on boardship. A depôt receives the emigrants from up-country. With abundant air the fever puts on a mild type, but spreads through the depot; the unsuspected disease is transferred with the emigrants, and as soon as the ventilation on board ship becomes deficient, deadly typhus appears.

The specific character and insidious nature of relapsing contagious fever.

The method of its introduction into jails illustrated.

The loss of life caused by the transfer of prisoners already infected into healthy jails has been enormous; indeed, I may safely affirm that not in a single instance has true relapsing fever appeared in a jail unless introduced from without.

I have spoken of the introduction of this fever into the Alipore Jail in 1860. In the Gya Jail report, I trace the history of this gang on its way down the Trunk Road. Forty-five prisoners were left behind at Shergotty, and were brought over to Gya in carts. Of these only 14 survived.

How contagious fever may be introduced by new prisoners is instructively set forth in the following narrative by Dr. Kilkelly, of Allyghur, who saved his jail by the precautions taken. This case occurred at the time when typhus was so prevalent over Central India in 1865. As I have already said, quarantine wards are now recognised as a necessity :—

"Five Hindoos travelling in company from Jeypore to the Ganges, were arrested in the district for a robbery, and were sent into the lock-up on the 25th of March, apparently in perfect health; on the 31st March one of them was admitted into hospital suffering from intense rigors, which he stated had come on suddenly. His case rapidly showed decided typhoid symptoms. He fell into a state of collapse, became insensible, and died on the 2nd of April, or four days after his admission into hospital. On the 14th April, a second of the prisoners was taken to hospital with exactly the same symptoms as the first. His case was very severe, and ran the usually protracted course of typhoid fever; after two or three relapses he recovered, and was discharged convalescent on the 2nd June. On the 18th and 20th of April, the third and fourth of the gang were attacked in the same manner as the first and second. Their cases ran a course similar to that of the first, and terminated in death on the 22nd.

"From the fact of some very severe cases of fever having been noticed by me in the dispensary about the time among pilgrims from Jeypore, I suspected, upon the occurrence of the first case in the jail, that the disease would prove of a malignant character, and I at once removed the whole of the Jeypore prisoners from the hawalat, confined them in a separate ward, and took steps to prevent their having any intercourse with the other prisoners in the jail. Though the disease from which they suffered did not spread, I look upon the case as interesting, inasmuch as it tends to show how epidemics are originated in jails.

"No other cases of the same type occurred in the Allyghur jail, either before the Jeypore prisoners were sent there, or after the survivors had been discharged, and I think it may fairly be inferred that these Jeypore men were infected with the seeds of the disease which proved so fatal to them before their arrest, and that had they not been at once removed from the Hawalat barrack, they might have been the cause of infecting other prisoners, or perhaps of originating an epidemic in the jail."

But quarantine is not always effectual in preventing the introduction of this most insidious disease. From this very jail, the seeds of the great Agra outbreak of 1862-63 were introduced.

Mr. Planck reports :—

"In the latter part of 1862, a body of prisoners was received from the Allygurh jail in the usual way. As it had been reported to me that typhoid fever was prevalent in the Allyghur Jail, the gang on arrival was placed in quarantine outside the prison for days, and their clothing was returned to the Allyghur jail. By the time of their arrival two or three had already sickened for continued fever; these were carefully treated outside the walls, and only one died. But notwithstanding all our endeavours to prevent an outbreak, it seems probable that the presence of these men determined the commencement of the epidemic."

Another illustration will suffice.

The Civil Surgeon of Delhi, addressing the Superintending Surgeon of Meerut, writes on 2nd May 1864 :—"The fever of the jail is relapsing, not remittent. Some of the cases have terminated fatally in a few days, while others after having got over the first attack, have been seized from the fourth to the sixth day after the febrile symptoms have disappeared, with a relapse. The fever is generally accompanied with jaundice, and terminates in dysentery or diarrhœa." He adds :—"To relieve the slightly overcrowded state of the jail, a hundred prisoners were sent to Umballa on 2nd April."

And this was the result. Dr. Bateson, of Umballa, continues the narrative :—

"What brought about this epidemic of relapsing fever in the Umballa Jail in 1864? The Inspector General of Prisons in the Punjab and myself were of opinion that overcrowding was the cause. This opinion was undisturbed till the arrival, on the 21st of November, of a docket from the Inspector General, Bengal Medical Department, to the effect that statistical returns in his office showed that the fever which was then raging in the Umballa Jail was contagious, and was transferred to Umballa from Delhi last spring.* This source of the disease had never once occurred to me; I had believed overcrowding only to be the cause of the disease.

"I have since studied the question closely—*Was the jail overcrowded?* During the epidemic period the prison had a Government license for 1,228 prisoners. The maximum number inside the prison never reached higher than 1,053 (on the 19th August), or 175 under license, the license in question giving 400 cubic feet per prisoner.

"Regarding the subject of the docket from the Head of the Medical Department, I addressed letters of inquiry to the Civil Surgeon at Delhi and to the Civil Surgeon at Kurnaul, where two of the original gang from Delhi had halted sick. I quote their replies: *Delhi, 9th February 1865.* 'There is nothing to show the existence of any fevers prevailing in the jail

* Written at my request.

(Delhi) at the time 100 prisoners left here for Umballa, on the 1st of April last year.* On or about the 15th April my predecessor records a suspicious case or two, and from that time till the end of June it prevailed. It was relapsing fever, and jaundice occurred in a good many cases. It was in no respect typhus or typhoid. It was infectious beyond all doubt, and deadly to a degree.' This was Dr. Penny's answer.

Dr. Newton, Civil Surgeon of Kurnaul, writes, dating 4th February 1865: "I recollect very well the two prisoners left here to die from the gang which left Delhi for Umballa on 1st April last. They were admitted into jail on 14th April 1864, one with decided jaundice and remittent fever, and the other had symptoms nearly the same. Neither had typhus eruption.

"The Umballa jail was in fair healthy condition up to the time of the arrival of this Delhi gang. The Delhi gang started off the remittent fever, which continued till it merged into the relapsing fever. The epidemic broke out in the rainy season, or just at its close. The prisoners at this time were sleeping very close together, and from the depressing effects of the rains were physically at the minimum of ability to resist the epidemic influence. Their air was humid and stagnant. To sum up: the Umballa jail sickness of 1864 notably increased on the arrival of the Delhi gang, two of whose original number had died on the way of a yellow remittent fever; about the time these two were dying, relapsing fever had commenced at the place they came from; the first three cases of remittent fever here in 1864 were from this Delhi gang, and the remittent fever never ceased up to its merging into relapsing fever. From all this I come to the conclusion, that the specific disease was brought by the Delhi gang, and the foul air of the dormitories during the sultry humid August was the propagating medium."

In the outbreak 123 prisoners died.

The Lahore jail outbreak of 1863-64, in which 335 prisoners were lost, illustrates typically the method of working of the zymotic agent. This outbreak was looked on as due to the degeneration of a malarious remittent prevalent during the rains.† It repeats, however, the history here given of the Umballa and Amritsar jails. The germ is introduced in March; the fever makes head in April and May; it dies to a minimum and changes its character in June, July and August; it gains strength and shape in September, and having infected the whole community maintains its ground until the following hot weather:—

The germ of an outbreak introduced months before is apt to be overlooked in consequence of the temporary decay of the typhus poison.

		March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1863.	Deaths	1	5	7	2	2	6	23	31	51	67

		January.	February.	March.	April.	May.
1864.	Deaths	46	56	29	6	2

Before the end of 1864 the fever again became manifest; and in the early months of 1865 it was again epidemic:—

		January.	February.	March.	April.	May.	June.
1865.	Deaths	10	12	20	19	8	1

Sir James McGregor, speaking of the typhus of Egypt, indicates the season of prevalence to be the same as in Upper India; and the fever follows, as with us, similar laws of variation with season and change of character in subordination to local conditions. He writes:

Influence of season on manifestation. The contagious fevers of India run parallel in season with those of Egypt.

"The plague made its appearance in the middle of September, and from its early appearance the natives were very much alarmed and prophesied a dreadful season of plague. They have observed that, when it breaks out before December, they have always a generally prevailing and a very destructive disease. * * * The natives of Egypt denominate the season of plague from November or December of one year to June of the year following; they observe that the disease constantly stops at the period of the summer solstice. * * * If it be true that the extreme of heat stops the progress of the contagion, it did not appear to be so in the Army in Egypt in regard to cold: the period at which the plague raged the most was in the cold months.

* * * * * *

"The plague is seen as varied in its appearance as the different fevers described by Sydenham to prevail in different years, and under different constitutions of the air in England.

"When the disease first broke out in the Indian Army the cases were from the commencement attended with the typhoid or low symptoms.

"When the army was encamped on the marshy ground at El Hammed the cases were all of the intermittent or remittent type.

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* This is an erroneous statement. The mortality of the Delhi jail ran thus:

January.	February.	March.	April.	May.	June.	July.
...	1	3	5	8	5	...

† Dr. Gray says that perhaps on its first appearance in August or September the fever was generally, if not entirely, malarious in character, but that as the season advanced, whether in consequence of unknown atmospheric influence or as the result simply of the powerfully depressing effects of malaria, in combination with other causes, operating on the health of the prisoners, a fever of quite a different type was generated, continued and infectious in character.

"Mr. Whyte remarked that every case admitted into his hospital had the symptoms of pneumonia.

"At the end of the season the disease wore the form of a mild continued fever.

"The resemblance which some cases shown and of others described to me, bore to the West Indian fever struck me very forcibly."

Typhus in vessels leaving Calcutta during typhus periods. Typhus of Réunion.

The typhus fever of 1864 was introduced into the Demerara emigration depôt at the end of the year. Six vessels left Calcutta between 18th November and 15th March, carrying 2,700 souls. Out of these, 868 died during the voyage or in hospitals after landing. The disease was typhus. There was no overcrowding to account for the outbreak, and enquiry failed to show that the fever originated on board spontaneously. The Sanitary Commissioner investigated the history of this calamity with the greatest care (Proceedings, February 1866, pages 100-127). Only 258 emigrants were from Lower Bengal; the rest were from Upper India where typhus was raging, and they were in the depôt a few days only before embarkation. Men of the same gang who had not sailed, died in the depôt at the date at which the fever appeared on board the ships that had left.

The fact put forward, that contagious fevers might originate on board ship, only served to obscure the great truth, that in this instance they did not so originate, and that the subtile nature of the typhus poison prevented the recognition of this fever before embarkation.

In the same year (1865), I was asked by the French Consul for information regarding this fever, which had made great havock in Réunion, and was said to have been imported with coolies from Calcutta. Acknowledging the information sent, the chief medical officer writes, dating Saint Denis, December 5th: "I fear the fever will recommence in 1866, although now extinct. * * * In the course of the epidemic the disease has varied much; in some cases it was not to be distinguished from yellow fever. One location has lost 64 out of 400 employed. The disease is the same described by Dr. Walker (whose report was forwarded). It is eminently contagious, and three medical officers have died."

In the early months of 1865, the same fever seems to have broken out among the emigrants to Assam, although the depôt agents did not recognise it in Calcutta. Writing to me in December 1865, Mr. White of Debrooghur says—

"Within the last 18 months, I have seen numerous cases of true typhus. Some of the best-marked cases were introduced by the steamer *Agra*, about six months since. They were brought prominently to my notice by the fact that a party of my regiment came up in the vessel from Gowhatty, and lost 6 out of 30 men in ten days. The survivors were landed in various stages of typhus, exactly similar to what I had seen at home in the Irish workhouses, and, on the other hand, entirely dissimilar to any form of malarious fever. The fever was low and continued without any distinct remissions, and was attended with great prostration. In most cases, the skin of the face, shoulders, and chest, was covered with petechiæ, and in a few cases, there was hæmorrhage from the nose and gums. A large number of the coolies by the same steamer were landed in a similar condition, and, as far as I remember, 75 were lost out of 600 embarked."

The natural alliances of typhus. The importance of the study of these alliances.

The history of the typhus of India of recent years is calculated to throw much light on points in early records which are now obscure. The etiological relations of the varieties of typhus being recognised, and the attributes of each variety being viewed as proper to the variety, the history of any epidemic period may be studied taking typhus as an object in natural history.

The old records of India frequently allude to plagues which were evidently of the same nature as those which have prevailed in our time. It has been suggested that at this distance of time these cannot be separated from outbreaks of cholera. But, keeping in view the natural history of the two diseases, and the seasons of prevalence, a very few distinctly-given details suffice to indicate the nature of the epidemic; and the truth that cholera and malaria stand at one end of the scale, and typhus and smallpox at the other, cannot be too often repeated.

How unvarying is the law of extinction with season, the table which follows shows; and the fact that the earlier the appearance of the fever the wider will be its spread before its annual decay, is also apparent from several examples contained in it.

Typhus and smallpox obey the same law of extinction. This is here illustrated by the mortality from smallpox in the European Army—

Deaths from Smallpox in the European Army of Bengal 1860 to 1869.

Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Augt.	Sept.	October.	Nov.	Dec.	For the period.
19	12	17	28	23	12	6	2	0	0	4	9	132

JAILS of the BENGAL PRESIDENCY, 1859—73.

JAILS OF THE BENGAL PRESIDENCY, 1859—73.

Table showing the Deaths from Contagious Fevers, typhus and relapsing, which have occurred in the more important outbreaks between 1859 and 1873, and the relation of the outbreaks to the influences prevalent at the different seasons of the year.

In this table the deaths from the sequelæ of the fever do not appear. In many returns, deaths from dysentery or atrophy following the attack of fever are entered without explanation as to their origin. The total mortality of these years due to the presence in the Jails of the specific fever poison may be reckoned at 6,000.

JAILS.	Approximate strength of prisoners.	Date of outbreak.	Number of deaths from Fever.	Number of Deaths from Fever in each Month of the Outbreak.																							
				January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Outbreak continued.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Budaon	285	March 1859	54	...	...	2	3	10	5	8	4	...	...	...	4	Continued in 1860	6	3	6	3	...	...	...	...	...	...	...	...
Agra	1,911	End of 1859	243	...	...	...	...	...	...	...	...	...	...	1	...	Continued in 1860	9	9	49	108	47	14	6	...	...	...	...	...
Meerut	2,096	November 1859	231	...	...	...	...	...	...	...	...	...	...	4	8	Continued in 1860	14	35	92	59	15	4	...	...	...	...	...	...
Lucknow	663	November 1859	152	...	...	...	...	...	...	...	...	...	...	3	10	Continued in 1860	25	19	35	39	18	3	...	...	...	...	...	...
Alipore	...	March 1860	28	...	...	9	16	2	1	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad	1,595	January 1860	109	5	11	37	44	10	2	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Mynpoorie	159	April 1860	11	...	...	...	4	3	3	1	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Meerut	2,189	April 1861	481	...	...	...	13	26	15	31	41	74	109	71	48	Continued in 1862	18	15	14	5	1	...	...	...	...	...	...	...
Allyghur	336	May 1861	105	...	...	...	...	1	...	...	4	6	17	24	20	Continued in 1862	18	10	3	1	1	...	...	...	...	...	...	...
Umballa	704	July 1861	235	...	...	...	...	...	...	5	13	25	31	32	37	Continued in 1862	19	10	30	17	10	6	...	...	...	...	...	...
Thanesur	477	August 1861	43	...	...	...	...	...	...	...	6	21	16*	...	...	* Jail abandoned	...	...	...	...	...	...	...	...	...	...	...	...
Loodiannah	...	November 1861	89	...	...	...	...	...	...	...	...	...	...	4	29	Continued in 1862	37	18	1	...	...	...	...	...	...	...	...	...
Jullundur	618	August 1861	147	...	...	...	...	...	...	...	4	10	12	21	34	Continued in 1862	49	8	3	5	1	...	...	...	...	...	...	...
Agra	2,494	February 1861	23	...	1	...	11	9	2	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Agra	2,209	October 1861	55	...	...	...	...	...	...	...	...	...	1	1	2	Continued in 1862	...	...	1	5	12	4	5	4	3	5	3	9
Agra	2,158	Jan. 1863 continued from December 1862.	469	17	25	37	20	12	3	5	...	1	4	6	4	Continued in 1864	15	39	76	134	43	27	1	...	...	...	...	...
Allyghur	246	September 1862	46	...	...	...	...	...	...	...	...	1	5	9	3	Continued in 1863	5	10	9	3	1	...	...	...	...	...	...	...

Bareilly . .	1,768	March	1862 .	375	...	...	1	19	24	10	12	15	0	38	57	65	Continued in 1863	52	37	20	15	...	...	...	...	...	...	...	...
Budaon . .	253	October	1862 .	22	...	...	...	...	...	...	...	...	...	1	6	3	Continued in 1863	3	4	2	3	...	...	...	...	...	...	...	...
Muttra . .	184	January	1863 .	15	3	2	1	3	6	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Lahore . .	2,027	February	1863 .	335	...	1	1	5	7	2	2	6	23	31	51	67	Continued in 1864	46	56	29	6	2	...	...	...	...	...	...	...
Mooltan . .	653	December	1863 .	58	...	...	...	...	...	...	...	...	...	...	...	6	Continued in 1864	7	6	21	11	6	1	...	...	...	...	...	...
Sialkot . .	220	March	1863 .	17	...	...	2	3	10	2	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Umballa . .	866	May	1864 .	123	...	...	...	...	6	3	...	7	25	27	21	17	Continued in 1865	12	3	2	...	...	...	...	...	...	...	...	...
Goojranwalla .	330	January	1864 .	26	1	8	11	3	2	1	..	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar . .	554	May	1864 .	78	...	...	...	...	1	...	3	2	5	6	10	24	Continued in 1865	16	9	2	...	...	...	...	...	...	...	...	...
Futtehghur . .	404	January	1864 .	54	1	7	9	22	11	3	1	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Cawnpore . .	279	January	1864 .	12	3	3	2	...	...	2	2	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Seetapore . .	779	January	1864 .	11	2	1	1	2	4	1	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Delhi . . .	299	February	1864 .	22	...	1	3	5	8	5	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi .	763	January	1864 .	29	6	8	6	5	2	1	1	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Lahore . .	1,964	End of	1864 .	70	10	12	20	19	8	1	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Goojrat . .	259	February	1865 .	17	...	1	...	6	7	3	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Peshawar . .	358	February	1865 .	34	...	1	5	5	21	2	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Sirsa . . .	257	February	1865 .	15	...	3	6	3	2	1	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly . .	1,697	February	1865 .	61	...	1	5	6	11	12	2	2	1	3	4	3	Continued in 1866	2	1	3	3	2	...	...	...	...	...	...	...
Gondah . .	951	October	1865 .	55	...	...	...	...	...	...	...	...	...	1	...	1	Continued in 1866	...	...	1	21	26	5	...	...	...	...	...	...
Sultanpore (Oudh)	227	March	1865 .	38	...	...	1	...	5	2	...	1	...	3	...	7	Continued in 1866	8	1	8	2	...	...	...	...	...	...	...	...
Jubbulpore . .	407	February	1865 .	36	...	5	18	11	2	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Nagpore . .	790	January	1865 .	66	1	2	2	3	4	2	...	5	10	9	9	7	Continued in 1866	2	4	6	...	...	...	...	...	...	...	...	...
Lucknow . .	2,619	November	1865 .	232	...	...	...	...	...	...	...	...	...	...	3	5	Continued in 1866	16	65	79	60	4	...	...	...	...	...	...	...
Bahraich .	158	February	1866 .	19	...	1	1	9	5	3	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad . .	2,403	February	1866 .	36	...	2	6	14	5	5	2	2	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Umballa . .	698	March	1866 .	40	...	...	12	24	3	1	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...

Table showing the Deaths from Contagious Fevers, typhus and relapsing, which have occurred in the more important outbreaks between 1859 and 1873, and the relation of the outbreaks to the influences prevalent at the different seasons of the year—continued.

JAILS.	Approximate strength of prisoners.	Date of outbreak.	Number of deaths from Fever.	Number of Deaths from Fever in each Month of the Outbreak.																							
				January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Outbreak continued.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Gondah . .	836	October 1867 .	105	...	...	...	...	...	...	...	...	...	1	2	22	Continued in 1868	26	27	20	4	3	...	...	...	...	...	...	...
Peshawar . .	406	January 1867 .	32	1	...	5	24	2	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...
Rawalpindi .	1,200	Last months of 1868.	95	...	...	...	...	...	...	...	...	...	1	4	2	Continued in 1869	7	14	52	11	2	2	...	...	...	...	...	...
Rawalpindi .	942	April 1870 .	76	...	...	...	7	8	2	2	1	1	3	2	2	Continued in 1871	9	31	4	2	2	...	...	...	...	...	...	...
Amritsar . .	656	January 1872 .	63	1	5	14	4	4	1	...	1	1	1	1	9	Continued in 1872	3	1	2	4	7	4	...	...	...	...	...	...
Peshawar . .	620	September 1872 .	50	...	...	...	...	...	...	...	...	1	1	3	8	Continued in 1873	18	9	4	1	2	3	...	...	...	...	...	...
Rawalpindi .	963	February 1873 .	122	...	3	23	10	4	2	...	1	1	13	17	17	Continued in 1874	9	10	5	4	3	...	...	...	...	-	...	...
TOTAL OF THE ABOVE* . .	...	.....	4,479	51	104	240	310	219	83	46	74	142	225	295	416	.....	433	439	565	521	207	73	12	4	3	5	3	9

* Excluding the mortality of the Meerut Jail in 1861 and 1862.

Fifty-one outbreaks are here figured; but many of these are double, presenting the spring outbreak, the decay, and the renewal, often with extreme virulence, with the setting in of the cold season. The story told throughout is absolutely consistent, if we except the mortality of the Meerut jail in 1861, the correct history of which we do not know.

The mortality following the introduction of relapsing fever into jails, and the season of its prevalence illustrated.

At any time during the typhus season the fever may be brought into a jail; but whether introduced early or late in the typhus season, decay or extinction occurs in May and June. Persistence in a state of decay through July, August, and September implies generally a deadly outbreak to follow in the cold season.

Grouped as a body, the deaths of fifty outbreaks (excluding the Meerut jail mortality). show the relation to season thus:—

	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apl.	May.	June.	Total.
Deaths of each month	58	78	145	230	298	425	484	543	805	831	426	156	4,479
Died per cent. of total deaths	1·3	1·7	3·2	5·1	6·7	9·5	10·8	12·1	18·0	18·6	9·5	3·5	100·0

This statement shows generally what is much more strikingly shown in almost every individual case, namely the working of the zymotic element from month to month. From July to April the ratios are steadily progressive; the mortality of May shows a sudden decline to one-half, and in June in the great majority of instances, the decay is absolute.

This is the state into which a jail community falls while the poison of typhus is working. Dr. Bateson writes:

"I have a vivid recollection of the scene upon entering one of the hospital barracks about the end of October. Looking at the wretched living skeletons, as many of the prisoners were, yellow was the all-prevailing colour. An amaurotic patient with his deep-stained ghastly jaundiced eyes upturned, was groping his way in search of his water-cup: another had his eye shrivelled up, and a third a leg or arm more specially atrophied even than the rest of his body. With all this misery the absence of delirium was a striking peculiarity. The prevailing feature was apathy, abandon and utter listlessness. Monotonous hiccough alone disturbed the quiet."

Condition to which a jail community is reduced by an outbreak of relapsing fever.

The use of the term Jail Fever, which is often employed, suggests that this typhus was peculiar to the jails during the years of its prevalence. This is not the case. The fever was in all these years among the free population as well. Nearly all reports on jail outbreaks mention the fact:

Contagious fever is almost invariably present among the free community before it appears in jails.

Lahore, May 1865.—"A fever similar to that which visited the Lahore and Mooltan jails two years ago, and which was designated the famine fever, now prevails throughout the Lahore district, and the villagers are deserting their homes in consequence of the great mortality which the disease is creating."

Amritsar, 1864.—"In the winter months of 1864, a yellow fever prevailed epidemically in the district, which carried off thousands. Many villages lost a fourth of their adult population."

Sialkot, 1864.—"There is a tribe noted for their thieving propensities who have been collected together and located in walled compounds; they have suffered fearfully from a remittent fever of a very fatal character."

Delhi, 1864.—"This form of fever has been prevalent in the city and district. There have been several cases among the troops, and these have been complicated with pleuro-pneumonia. It has also been very prevalent in the Hissar Division. It is looked on by the natives as epidemic, and by them is termed the Goojerat sickness."

Saharunpore, 1864.—"During March, April, and part of May a low fatal form of fever prevailed in various parts of the district."

Racpore, 1864.—"The epidemic was prevalent in the district, and did not originate in the jail."

Allyghur, 1863.—"Hitherto, when the fever has prevailed in the jail, it has raged in the district; and now that it has disappeared from the jail, it has, at the same time, disappeared from the district."

Futtehghur, 1863.—"The disease is evidently the same which prevailed in some villages of the district during the early part of 1863, and in the city of Furruckabad in November and December."

Bareilly, 1862.—"Since May this fever has been prevalent in the district."

Meerut, 1860.—"In one village, near Sirdhana, it is reported that 500 have died out of a population of 4,900."

Why have these fifty outbreaks occurred, and why has this typhus remained for so many months after having once shown its presence? Why in these years have 6,000 prisoners died from typhus, and 161 only from smallpox, an equally deadly and allied disease?

Why precautionary and sanitary measures have failed to cut short these jail outbreaks.

The history of all epidemics is repeated over and over again in India. After an interval of ten or twenty years, or it may be longer, the general spread of typhus over Northern and Central India will again take place, and again the jails will be visited, as in our time. The most fatal error handed down to us I take to have been that which, has sought to connect jail fevers with evil conditions existing within the jails, ignoring the growth of the outbreak from the

spark thrown in from without. The tendency has been to exaggerate these in order that the erroneous theory may be borne out. As I have already clearly shown, it is in healthy jail communities that these fevers have been developed, and not as the rule among prisoners suffering from want or pre-existing disease. The theory is not the less dangerous for being based on the fact that contagious fevers may, under certain conditions, arise without the intervention of the specific typhus poison. The treacherous nature of the poison, which holds out the promise of amendment and of the disappearance of the fever, has led many astray; the epidemic is surely on the advance, while the observer stops to speculate as to whether the condition of his prisoners is due to scurvy and under-feeding, to defective ventilation and overcrowding, or to the fever which he expects every autumn to find in his jail, just as among the free population. Good dieting will not prevent the spread of typhus, if typhus be present; robust health may delay, but will not ward off the attack of typhus; nor will the absence of overcrowding, however it may conduce to a comparatively favourable result, cause the outbreak to die. The nature of the zymotic poison must be apprehended, and the measures taken must recognise the natural history of the object whose death these measures are designed to bring about. In the jail at Umballa, in 1864, 237 men died from this fever; a partition wall cutting off the lock-up and female prisoners from the others, prevented in a single instance the spread beyond the infected squares.

To define the stage or stages in which this fever is capable of propagation from man to man is of supreme importance. It seems impossible to account for the wonderfully increasing ratio of attack month by month, occurring in spite of all precautions, unless by the supposition that there is a stage antecedent to the actual onset, in which typhus will spread among a closely-packed body of men. The suspicion naturally occurs that, while the poison is circulating in the system, and before the fever stage is reached, those already stricken are passing on the contagion to others shut up with them, and occupying the same dormitories. The characteristic absence of all premonitory signs before the actual attack, renders this all the more probable; and daily weeding out from among the apparently healthy of those attacked has not availed to bring the outbreak to a termination.

I might have impressed the facts here set forth by many further illustrations. But it has been my wish to shorten the paper as much as possible, and, therefore, I have selected typical examples only, which bear on the main points to be illustrated. While the medical history of these eighteen years is in many respects a sad one, the diminution of mortality by one-half in the last half of the period, holds out good promise for the future; and the progress made we trust to see interrupted by few great disasters, such as those which have left their stamp on the statistics of these years.

APPENDIX TO SECTION III.

TEN-YEAR STANDARD

FOR

THE JAIL POPULATION OF THE BENGAL PRESIDENCY,

BASED ON

THE STATISTICS OF THE YEARS FROM 1867 TO 1876.

TABLES I—LVI.

CONTENTS.

STATISTICS OF JAIL ADMINISTRATIONS.

Table showing in the aggregate the Sickness and Mortality among the Jail Population of the Bengal Presidency during the ten-year period, 1867—76, and the prevalence of the principal diseases in each month I

Parallel Tables for Administrations.

Bengal Proper and Assam III
Oudh V
Central Provinces VII
North-Western Provinces IX
Punjab XI

Tables II, IV, VI, VIII, X and XII give the Annual Ratios of Sickness and Mortality in each year of the period for the Presidency and the different provinces, and show the monthly admission-rate and daily sick-rate of each month of the ten years.

Table showing the Sickness and Mortality in Jails in charge of Political Officers, which have furnished Returns during the ten-year period, and the prevalence of the principal diseases in each month XIII

Comparative Statement of the Ratios of Sickness and Mortality among the Jail Population included under the various Administrations on the average of the ten years XIV

STATISTICS OF NATURAL SUB-DIVISIONS OF CERTAIN OF THE ADMINISTRATIVE AREAS AND OF TYPICAL JAILS, ARRANGED IN THE FORM EMPLOYED FOR THE STATISTICS OF ADMINISTRATIONS.

SUB-DIVISIONS OF BENGAL PROPER.

1. Northern and Eastern Bengal XV
2. Assam and Cachar XVI
3. South-Western Bengal and Chota Nagpore XVII
4. Behar Provinces XVIII
5. Central Jail at Alipore, a body of 2,400 prisoners representative in itself XIX

Comparative view of the ten-year ratios for the above sub-divisions XX
Composition of the death-rate of each of the ten years in the same sub-divisions XXI

TYPICAL JAILS AND JAILS OF SPECIAL CHARACTERISTICS OF BENGAL PROPER.

Presidency Jail (six years only, 1871—76) XXII
Dacca for the ten-year period XXIII
Backergunge „ „ XXIV
Rajshahai „ „ XXV
Rungpore „ „ XXVI
Monghyr „ „ XXVII
Mozufferpore „ „ XXVIII
Hazaribagh „ „ XXIX

The Ratios for the above jails compared, showing how certain jails are habitually healthy, and others the reverse XXX

SUB-DIVISIONS OF THE NORTH-WESTERN PROVINCES.

Eastern sub-division, excluding the Central Jails at Benares, Allahabad, and Futtehghur XXX
Western sub-division, excluding the Central Jails at Bareilly, Meerut, and Agra XXXI

CENTRAL JAILS OF THE NORTH-WESTERN PROVINCES.

Benares Jail for the ten-year period XXXIII
Futtehghur „ „ XXXIV
Allahabad „ „ XXXV
Agra „ „ XXXVI
Bareilly „ „ XXXVII
Meerut „ „ XXXVIII

Lucknow Central Jail, under the Administration of Oudh, shown in contrast to the above XXXIX

The ratios for the Lucknow Central Jail for each year, to show how the Jail has remained healthy throughout the period XL

Comparative Statement showing the aggregate of the ratios of the District Jails of the Eastern and Western Sub-divisions, and the ratios for the Central Jails of the North-Western Provinces and Oudh XLI

TYPICAL DISTRICT JAILS OF THE NORTH-WESTERN PROVINCES.

Eastern Division. A healthy Jail, Ghazeepore XLII
„ An unhealthy Jail, Goruckpore XLIII
Western Division. A healthy Jail, Agra District XLIV
„ An unhealthy Jail, Meerut District XLV

CENTRAL JAILS OF THE CENTRAL PROVINCES.

Nagpore Jail for the ten-year period XLVI
Jubbulpore „ „ XLVII
Raipore „ „ XLVIII

CENTRAL AND TYPICAL JAILS OF THE PUNJAB.

Lahore Central Jail for the ten-year period XLIX
Lahore Female Jail „ „ L
Rawalpindi Jail „ „ LI
Working gangs at Rupar „ LII
The Ten-year Ratios of these Jails of the Central Provinces and Punjab shown in a comparative statement LIII

Admissions from Cholera during the Ten Years in each Jail of the Presidency, shown by the months . . LIV
Death-table for each Jail of the Presidency, showing the Aggregate Mortality of the Ten Years . . LV
Detail of the Causes of 630,538 Hospital Admissions and 24,409 Deaths of the Ten Years LVI

STATISTICS OF THE *JAIL ADMINISTRATIONS* OF THE *BENGAL PRESIDENCY, 1867—76.*

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PRESIDENCY, 1867—76.

I.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY among the JAIL POPULATION of the BENGAL PRESIDENCY during the TEN-YEAR PERIOD 1867—76, and the prevalence of the principal Diseases in each Month.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever (1872 to 1876).	Contagious Fevers.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	618,526	17,649	28·5	2,185	3·53	21	7	1	73	174	14	872	5	22	447	16	126	51	4	137	26	189
February	619,518	16,929	27·3	1,538	2·48	51	12	1	100	124	16	518	5	16	299	10	88	45	4	89	20	140
March	617,907	16,891	27·4	1,505	2·44	150	10	4	129	145	14	412	7	17	253	7	98	31	3	84	24	111
April	618,933	17,762	28·7	1,532	2·46	237	8	1	66	168	11	452	7	15	191	13	98	27	2	73	33	116
May	622,081	17,314	27·8	1,532	2·45	244	10	2	30	169	47	426	9	11	176	4	114	25	1	93	33	128
June	630,276	17,066	27·1	1,395	2·21	137	8	2	11	128	133	387	9	17	157	13	120	26	1	85	32	129
July	638,800	18,231	28·5	1,620	2·54	401	5	1	...	114	33	495	8	16	149	13	102	27	1	81	35	139
August	643,977	22,053	34·2	2,071	3·22	360	3	4	1	179	18	852	11	25	137	13	119	35	3	132	38	150
September	648,078	24,690	38·1	2,468	3·81	271	2	2	1	244	15	1,197	19	18	189	17	167	38	9	132	34	173
October	645,448	25,753	39·9	2,780	4·31	95	...	4	14	344	24	1,429	12	37	255	20	125	42	9	138	37	185
November	640,329	23,779	37·1	2,990	4·67	117	1	3	20	340	15	1,405	10	25	324	22	149	54	9	179	35	222
December	632,170	19,955	31·6	2,791	4·41	69	3	1	48	214	11	1,330	8	29	455	24	137	54	11	165	26	206
						2,159	769	26	493	2,334	351	9,835	110	248	3,036	172	1,383	465	57	1,388	373	1,888
						Died per 1,000 of the Average Strength.																
For the ten years ...	631,303	19,839	31·4	24,387	38·63	3·42	·11	·01	·78	3·70	·56	15·58	·17	·39	4·81	·27	2·19	·74	·09	2·20	·59	2·99

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	1	44	80	146	163	247	220	114	22	5	1,121	1·8	.....
Cholera	63	183	453	558	565	329	974	819	527	211	275	140	5,097	8·1	42·36
Smallpox	118	123	174	184	150	85	19	10	7	7	40	69	986*	1·6	7·00
Enteric Fever (1872—76) ...	2	...	5	6	9	5	2	6	3	7	5	3	56	·1	46·43
Contagious Fevers ...	348	763	1,009	589	206	86	20	1	...	323	169	134	3,651	5·8	13·59
Fevers, Intermittent ...	13,503	11,556	13,719	15,909	16,516	15,618	19,921	31,342	37,903	40,044	28,608	18,289	263,612	416·6	·85
Fevers, Remittent and Continued	669	769	1,005	1,058	1,026	876	945	1,181	1,675	1,674	1,179	669	12,747	20·2	42·65
Apoplexy	13	22	19	21	147	410	88	21	19	29	23	11	823	1·3	
Dysentery	4,071	2,912	3,730	4,343	4,052	4,058	6,012	8,065	8,097	7,164	6,647	5,597	65,348	103·5	8·04
Diarrhœa	2,114	3,005	4,931	5,284	4,590	4,691	6,039	6,767	5,640	4,740	4,404	3,709	56,976	90·2	
Hepatitis	49	49	49	56	61	45	58	53	74	49	45	43	631	1·0	17·43
Spleen Disease	450	339	323	382	395	369	443	405	437	530	521	482	5,076	8·0	4·89
Respiratory Diseases ...	2,882	2,413	2,084	1,767	1,757	1,481	1,426	1,401	1,405	1,818	2,291	2,916	23,641	37·4	12·84
Phthisis Pulmonalis ...	233	193	218	232	228	234	203	174	186	228	243	254	2,626	4·2	52·67
Dropsy	166	118	132	113	143	135	145	140	150	165	154	189	1,750	2·8	20·57
Atrophy and Anæmia ...	810	568	518	565	571	637	820	767	738	832	867	876	8,569	13·6	16·20
Scurvy	186	165	140	107	131	138	178	182	255	259	238	165	2,004	3·2	2·84
Rheumatism	1,093	926	1,081	990	1,037	1,108	1,079	1,017	996	1,024	1,065	1,006	12,402	19·6	
Venereal Diseases ...	827	832	996	1,003	981	1,034	961	921	852	794	729	761	10,761	17·0	
Eye Diseases	359	393	647	902	947	704	812	847	839	734	572	383	8,199	13·0	1·37
Abscess and Ulcer ...	4,069	4,774	5,057	5,175	5,642	6,772	7,229	6,005	5,141	4,742	4,196	4,334	64,036	101·4	
Wounds and Accidents ...	1,738	1,885	2,292	2,421	2,443	2,462	2,516	2,156	2,102	1,779	1,648	1,565	25,007	39·6	
All other Causes	4,849	4,794	5,489	5,362	5,317	5,016	5,081	4,945	4,800	4,113	3,787	4,015	57,128	90·5	
	40,184	36,713	43,972	47,161	46,994	46,499	55,134	68,072	71,745	71,280	57,728	45,705	631,587		
	Admitted per 1,000 of the Average Strength in each Month.														
	65·5	59·3	71·3	76·2	75·5	73·7	86·3	105·7	110·7	110·6	90·2	72·3	1000·5		

* During the ten years, 3,249 cases of chickenpox were returned in the Jails of the Presidency. Chickenpox obeys the law which determines the appearance, increase and decay of smallpox. These cases appear under the head "All other Causes."

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PRESIDENCY, 1867—76.

II.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION of the BENGAL PRESIDENCY for each year of the TEN-YEAR PERIOD 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	54,962	28·2	26·0	27·6	30·7	30·2	27·7	28·7	33·6	42·6	41·8	36·7	32·6	32·3
1868	55,287	28·3	27·5	28·5	29·7	29·2	27·1	26·3	28·6	29·9	31·5	32·8	27·7	29·0
1869	61,998	24·8	25·8	28·8	29·8	29·4	27·7	29·3	32·6	34·3	30·8	30·3	30·1	31·0
1870	59,878	27·2	27·3	26·0	27·2	27·1	25·1	27·3	32·1	36·2	38·5	37·2	33·1	30·3
1871	57,537	29·4	27·0	25·2	24·7	24·2	23·9	26·8	31·4	34·3	37·4	36·5	31·4	29·4
1872	61,359	27·0	25·1	24·7	25·4	25·8	26·0	29·0	37·4	40·8	40·2	36·3	31·4	31·0
1873	67,037	29·0	28·0	27·7	28·6	27·0	26·1	26·9	33·9	41·7	43·4	36·2	32·5	31·9
1874	72,069	29·6	27·4	25·0	25·2	25·7	25·9	32·0	40·1	42·2	45·6	40·9	33·8	34·0
1875	71,414	31·5	29·2	28·6	29·6	27·8	26·2	26·8	32·0	36·3	37·9	38·3	32·3	31·4
1876	69,771	29·3	28·0	28·1	31·4	29·8	30·8	31·2	38·4	40·9	40·9	36·2	30·4	33·0
Ten years, 1867—76 ...	631,303	28·5	27·3	27·4	28·7	27·8	27·1	28·5	34·2	38·1	39·9	37·1	31·6	31·4

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	67·9	69·8	77·3	90·0	82·7	78·6	55·8	111·3	129·1	117·3	92·6	76·7	1079·2
1868	69·0	68·0	77·6	77·5	79·5	76·1	58·9	88·5	82·7	91·7	82·1	69·4	941·4
1869	58·6	69·8	79·8	80·3	79·7	76·2	88·6	101·7	93·3	119·9	98·7	68·6	1019·1
1870	65·3	61·3	67·8	72·2	71·7	70·0	83·0	98·9	107·1	115·3	93·9	73·8	982·4
1871	63·0	54·8	62·9	68·5	66·5	66·4	82·1	103·2	105·5	104·9	88·8	67·1	927·4
1872	58·2	51·8	63·3	71·0	75·6	71·6	93·0	119·6	128·8	113·4	91·8	70·7	1019·8
1873	74·5	61·7	70·9	75·4	74·9	70·2	84·5	114·2	124·6	112·9	87·5	77·8	1012·9
1874	69·2	60·0	75·0	76·7	76·5	75·3	97·8	116·2	109·6	114·0	84·6	71·3	1027·9
1875	64·9	55·8	71·1	75·4	70·0	67·4	75·2	91·3	101·3	101·7	95·8	73·7	942·8
1876	64·8	58·7	69·5	81·3	78·1	79·3	87·3	109·6	119·0	111·7	86·4	69·4	1017·2
Ten years, 1867—76 ...	65·5	59·3	71·3	76·2	75·5	73·7	86·3	105·7	110·7	110·6	90·2	72·3	1000·5

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.															Admission-rate of the year.
	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	11·5	368·3	·8	198·9	1·5	8·4	23·5	3·5	3·1	9·2	3·8	21·7	15·6	117·9	41·9	137·5	1079·2
1868	5·8	370·9	·7	183·7	1·0	7·1	30·5	3·6	2·7	11·2	4·4	24·0	16·0	107·3	38·7	124·8	941·4
1869	14·7	368·6	5·0	188·9	1·1	6·4	30·5	4·6	2·3	10·4	4·3	20·6	14·4	96·5	35·6	115·2	1019·1
1870	9·1	368·3	·6	195·4	1·1	8·2	38·5	4·8	1·8	11·0	2·3	22·1	12·3	83·2	33·4	99·3	982·4
1871	3·0	441·8	1·1	168·6	·7	9·5	34·2	5·2	2·1	10·6	1·5	19·2	12·1	81·5	30·9	96·4	927·4
1872	9·1	446·7	·5	216·6	1·4	8·2	35·9	3·6	2·5	10·7	2·6	18·5	12·2	94·3	40·4	110·6	1019·8
1873	7·0	450·2	1·3	217·4	·8	8·3	44·0	3·5	2·7	10·4	3·2	16·9	13·0	110·0	42·7	102·5	1012·9
1874	6·7	445·3	·7	197·3	1·0	8·2	45·0	4·1	4·0	14·7	2·3	19·0	12·5	106·7	44·2	116·2	1027·9
1875	5·9	390·3	·9	185·1	·8	8·2	37·3	3·9	3·0	16·3	3·6	16·3	11·4	99·2	42·7	109·8	942·8
1876	8·3	457·5	1·5	190·6	·7	7·9	41·4	4·8	3·2	19·3	3·7	17·5	11·4	115·0	38·8	95·6	1017·2
Ten years, 1867—76 ...	8·1	442·7	1·3	193·7	1·0	8·0	37·4	4·2	2·8	13·6	3·2	19·6	13·0	101·4	39·6	110·9	1000·5

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.*
1867	4·03	35·29	38·32	4·03	1·07	3·75	·85	15·23	·49	·40	3·31	·26	1·86	·87	2·22	3·10	·66
1868	2·48	27·80	30·28	2·48	1·45	2·91	·38	12·06	·69	·33	2·39	·21	1·64	·67	2·30	2·30	·38
1869	6·24	36·57	42·81	6·24	1·42	4·76	1·42	16·21	·20	·34	3·74	·21	2·18	·74	2·26	2·64	·55
1870	3·52	38·40	41·92	3·52	...	5·91	·28	16·07	·30	·39	4·79	·17	1·77	·75	3·17	3·09	·09
1871	1·10	33·42	34·52	1·10	·84	3·89	·54	14·09	·17	·42	4·41	·35	2·39	·30	1·77	2·95	·61
1872	4·04	39·54	43·58	4·04	·62	3·26	·24	20·78	·15	·28	4·54	·23	2·07	·95	2·62	3·27	·80
1873	2·97	40·11	43·08	2·97	2·23	3·25	·81	16·63	·12	·33	7·00	·52	2·23	·55	1·94	3·09	·73
1874	2·48	37·42	39·90	2·48	·43	3·59	·31	16·58	·11	·55	6·02	·25	2·51	·55	2·37	3·84	·69
1875	2·35	31·30	33·65	2·35	...	4·20	·32	12·38	·15	·77	5·01	·32	1·96	·67	1·85	3·14	·62
1876	4·24	33·27	37·51	4·24	...	2·36	·39	14·75	·10	·29	5·45	·16	3·21	·73	2·19	2·80	·53
Ten years, 1867—76 ...	3·42	35·21	38·63	3·42	·78	3·74	·55	15·58	·17	·39	4·81	·27	2·19	·74	2·29	3·19	·59

* Executions are not included in any Table of this series.

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PROPER, 1867—76.

III.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in the JAIL POPULATION included under the ADMINISTRATION of BENGAL PROPER during the TEN-YEAR PERIOD 1867—76, and the prevalence of the principal Diseases in each Month.

[Assam, which was recently placed under separate administration, is included in this Statement.]

MONTHS.	Aggregate of the Average Strength in each month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever (1872—76).	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	192,420	6,746	35·1	761	3·95	21	5	...	48	5	354	1	12	87	5	64	43	1	56	9	59
February	192,802	6,485	33·6	603	3·13	23	3	1	30	10	254	1	10	79	5	52	34	1	39	6	55
March	192,564	6,658	34·6	675	3·51	134	3	4	48	5	238	4	8	67	4	54	23	2	41	13	37
April	193,261	7,059	36·5	806	4·17	218	4	1	68	8	280	2	10	62	7	67	19	1	43	9	47
May	195,203	6,772	34·7	772	3·95	214	5	2	45	5	248	5	5	57	2	68	19	1	39	14	43
June	198,167	6,759	34·1	680	3·43	108	4	1	39	10	286	4	9	52	7	74	20	1	44	14	47
July	198,968	7,603	38·2	894	4·49	287	4	...	45	4	307	2	11	60	5	51	17	...	45	10	46
August	198,881	8,273	41·7	902	5·00	192	...	4	61	11	447	4	6	56	6	58	25	2	56	8	56
September	197,564	8,295	41·9	1,014	5·12	163	2	1	69	10	481	9	10	52	10	48	25	1	64	11	58
October	195,849	8,189	41·8	991	5·06	52	...	3	76	11	552	7	15	69	11	67	28	1	43	12	44
November	195,267	8,201	42·0	1,067	5·46	91	1	1	83	5	525	2	14	80	9	72	31	5	63	12	73
December	193,757	7,431	38·4	966	4·98	64	1	...	60	2	473	5	20	100	7	69	32	4	58	10	61
						1,567	32	18	672	86	4,365	46	130	821	78	744	316	20	591	128	607
						Died per 1,000 of the Average Strength.															
For the ten years ...	195,386	7,372	37·7	10,221	52·31	8·02	·16	·09	3·44	·44	22·34	·24	·67	4·20	·40	3·81	1·62	·10	3·02	·65	3·11

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	1	44	80	145	169	158	83	62	18	5	716	3·6	
Cholera	62	89	469	520	477	265	731	440	353	105	231	133	3,806	19·5	41·17
Smallpox	22	26	43	51	56	38	11	3	4	4	6	19	283	1·4	11·31
Enteric Fever (1872—76) ...	...	2	4	4	3	3	2	5	3	4	2	1	33	·2	54·54
Fever, Intermittent ...	5,561	4,890	5,931	6,302	5,929	6,048	8,242	9,504	8,983	10,243	9,807	7,350	88,880	454·9	
Fevers, Remittent and Continued ...	266	270	355	344	329	333	446	497	552	499	438	274	4,603	23·6	·72
Apoplexy	5	12	5	11	9	22	4	10	11	11	8	5	113	·6	76·11
Dysentery	2,041	1,646	2,179	2,028	2,431	2,519	3,646	4,068	3,760	3,160	2,929	2,645	33,642	172·2	6·73
Diarrhœa	1,609	1,773	3,181	3,203	2,723	2,853	3,598	3,164	2,773	2,421	2,120	1,866	31,174	159·5	
Hepatitis	28	25	21	20	31	23	28	22	41	20	25	25	308	1·6	14·93
Spleen Disease	238	208	185	218	225	188	294	233	236	256	246	259	2,786	14·3	4·67
* Respiratory Diseases ...	711	608	670	578	618	548	528	575	582	680	672	793	7,683	39·3	10·69
Phthisis Pulmonalis ...	124	115	136	128	131	135	108	90	92	136	146	139	1,480	7·6	50·27
Dropsy	131	91	93	87	109	111	122	112	116	119	108	145	1,344	6·9	23·51
Atrophy and Anæmia ...	296	259	279	290	272	326	533	435	395	417	448	378	4,328	22·1	13·65
Scurvy	66	61	70	62	77	93	139	111	103	116	174	162	1,168	6·0	1·71
Rheumatism	540	459	529	487	511	544	519	494	462	484	541	498	6,068	31·1	
Venereal Diseases ...	335	332	375	399	353	402	363	368	347	275	291	302	4,142	21·2	
Eye Diseases	114	125	163	177	180	191	223	229	213	222	150	120	2,107	10·8	1·36
Abscess and Ulcer ...	1,113	1,125	1,187	1,206	1,255	1,280	1,344	1,165	1,112	1,010	844	997	13,538	69·3	
Wounds and Accidents ...	389	673	706	767	761	768	783	711	673	626	549	569	8,235	42·1	
All other Causes	2,501	2,476	2,618	2,446	2,423	2,683	2,043	1,951	1,900	1,809	1,677	1,888	25,815	132·1	
	16,352	15,355	19,191	19,072	18,963	18,920	23,760	24,487	22,612	22,679	21,520	18,443	242,252		
	Admitted per 1,000 of the Average Strength in each Month.														
	85·0	79·6	99·7	103·3	97·1	95·5	119·5	123·4	114·2	115·8	110·2	95·2	1239·9		

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PROPER, 1867—76.

IV.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION included under the ADMINISTRATION of BENGAL PROPER for each year of the TEN-YEAR PERIOD 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each Year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	18,504	37·9	37·4	35·0	37·2	35·0	35·3	39·1	46·9	60·0	48·2	46·5	45·6	41·0
1868	17,605	38·2	34·9	36·9	38·1	37·5	36·3	37·2	39·8	40·1	42·4	40·8	39·3	38·5
1869	18,509	33·3	35·7	39·3	42·0	38·9	33·2	35·6	40·9	38·1	38·0	40·0	34·1	37·9
1870	18,030	30·4	29·2	30·7	32·3	32·3	32·7	37·4	41·3	40·1	39·3	43·1	37·4	35·4
1871	17,270	31·7	30·2	31·1	32·6	32·2	33·3	37·3	40·9	42·6	47·1	46·8	40·9	37·4
1872	19,102	35·1	31·6	39·2	31·6	32·0	32·4	39·6	43·4	40·3	40·3	39·8	36·2	36·2
1873	20,356	32·7	29·9	30·3	32·4	30·8	29·9	35·0	39·1	38·9	37·0	37·8	36·4	34·2
1874	21,766	35·8	33·6	35·5	37·1	36·9	36·1	39·2	43·2	42·6	41·6	39·0	37·6	38·2
1875	21,206	36·0	35·3	37·6	40·7	36·8	33·7	37·1	38·0	42·5	44·4	48·6	42·2	39·4
1876	22,058	38·6	37·8	38·4	40·1	34·5	36·1	41·2	43·4	43·9	40·8	38·8	34·9	39·0
1867—76	195,386	35·1	33·6	34·6	36·5	34·7	34·1	38·2	41·7	41·9	41·8	42·0	38·4	37·7

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	94·0	85·5	102·0	112·7	108·5	101·4	125·4	151·4	138·1	129·1	115·3	108·7	1304·6
1868	88·7	94·6	111·9	110·4	111·7	108·8	116·4	124·7	117·4	131·1	116·9	101·7	1330·5
1869	85·5	85·3	114·1	116·9	103·6	98·0	121·5	114·4	99·0	102·8	102·0	78·2	1251·1
1870	70·1	69·0	87·9	85·4	87·3	90·1	115·6	139·5	103·4	111·0	114·1	90·4	1139·9
1871	69·3	68·1	81·7	85·5	85·8	85·2	105·6	122·7	116·4	128·9	116·1	92·7	1161·1
1872	74·3	69·9	79·6	90·6	94·3	94·3	122·4	118·0	105·0	107·9	101·9	92·4	1153·9
1873	83·2	72·0	87·7	93·3	88·4	86·1	119·1	126·9	115·7	109·4	110·4	105·9	1201·1
1874	100·0	83·4	114·9	114·8	107·7	107·6	128·4	136·8	124·2	115·7	103·9	94·0	1335·5
1875	89·0	79·6	109·5	113·2	91·8	87·5	109·6	108·5	111·7	119·3	124·9	98·2	1243·2
1876	90·9	90·5	103·9	107·8	94·2	102·6	126·7	133·0	111·7	106·9	98·9	87·6	1236·3
1867—76	85·0	79·6	99·7	103·3	97·1	95·5	119·5	123·4	114·2	115·8	110·2	95·2	1239·9

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year.
	Cholera.	Fevers.*	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	21·4	530·5	·5	336·2	2·1	12·6	45·4	6·6	8·1	16·4	6·0	39·3	13·1	20·7	44·6	191·1	1304·6
1868	16·9	533·7	·6	349·2	1·6	13·1	42·7	6·0	7·0	23·1	7·0	36·3	13·8	20·6	45·5	172·4	1330·5
1869	29·3	493·8	·6	289·5	2·2	11·2	38·3	9·7	8·5	17·2	9·7	32·9	11·3	20·7	42·0	179·2	1251·1
1870	24·2	500·0	·3	259·8	1·8	14·2	38·2	7·7	3·0	16·3	2·1	33·3	9·7	15·8	39·9	143·6	1139·9
1871	8·8	533·9	·6	261·8	1·3	19·4	41·0	10·1	4·6	11·7	2·9	32·4	10·7	20·2	39·6	132·1	1161·1
1872	16·7	416·1	·6	338·4	2·0	16·3	34·8	6·5	5·9	11·2	4·2	28·0	9·5	61·0	39·3	160·4	1153·9
1873	18·1	450·4	·7	372·6	1·2	14·9	32·1	5·6	7·0	39·0	7·7	25·1	8·6	57·3	42·9	127·9	1201·1
1874	19·5	498·9	·5	382·5	1·3	13·2	30·6	6·5	10·5	23·2	3·6	30·7	12·2	81·9	42·4	109·0	1335·5
1875	15·0	435·9	·5	358·6	1·2	13·8	38·7	6·9	7·8	31·5	9·2	28·0	9·3	82·0	44·3	160·5	1243·2
1876	24·3	427·1	·8	361·6	1·3	14·2	45·9	10·2	8·3	27·3	7·0	27·0	10·1	80·2	40·8	150·1	1236·2
1867—76	19·5	478·7	·6	331·7	1·6	14·3	39·3	7·6	6·9	22·1	6·0	31·1	10·8	69·3	42·1	158·3	1239·9

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	9·73	51·23	60·96	9·73	...	3·84	·54	26·27	·76	·39	4·97	·32	3·24	2·11	3·73	4·16	·70
1868	6·89	46·18	53·07	6·89	...	3·16	·45	23·11	·06	·45	3·74	·34	2·88	1·93	5·26	3·68	·57
1869	11·40	43·39	54·79	11·40	...	4·36	·43	20·43	·22	·43	4·63	·81	4·25	1·56	3·06	3·16	·43
1870	9·81	55·42	65·23	9·81	...	3·27	·22	15·58	·33	·78	3·38	·78	2·60	1·22	3·44	4·54	·78
1871	3·15	36·97	40·12	3·15	...	3·26	·51	17·50	·39	·68	3·88	·45	3·77	·90	2·48	3·76	·39
1872	7·07	46·28	53·35	7·07	...	3·08	·42	25·00	·31	·42	3·13	·37	2·78	1·73	1·88	3·76	1·20
1873	7·44	41·01	48·45	7·44	...	2·63	·63	22·47	·05	·49	4·13	·88	3·31	1·41	1·80	2·43	·78
1874	6·85	48·19	55·04	6·85	...	4·04	·46	25·08	·05	·64	4·35	·32	4·82	1·93	2·07	2·89	·74
1875	5·12	45·41	50·53	5·12	...	4·32	·47	23·43	·14	1·30	4·13	·38	3·95	1·74	2·91	2·87	·47
1876	12·42	46·47	58·89	12·42	...	2·49	·27	22·17	·23	·59	5·03	·23	6·76	1·54	2·90	3·67	·50
1867—76	8·02	44·29	52·31	8·02	...	3·53	·44	22·34	·24	·67	4·20	·40	3·81	1·62	3·02	3·37	·65

* No outbreak of Contagious Fever occurred in the Jails of Bengal Proper during the ten years.

STATISTICS OF JAIL ADMINISTRATIONS—OUDH, 1867—76.

V.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in the JAIL POPULATION included under the ADMINISTRATION OF OUDH, during the TEN-YEAR PERIOD 1867—76, and the prevalence of the principal Diseases in each Month.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Contagious Fever.*	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	73,095	1,396	19·0	180	2·45	...	...	26	10	3	29	...	1	16	2	18	...	...	16	1	8
February	74,000	1,391	18·8	124	1·68	1	1	27	7	...	46	1	1	9	1	9	...	...	4	4	13
March	73,335	1,361	18·6	130	1·50	...	2	20	2	1	31	...	...	12	1	16	1	...	5	3	16
April	73,412	1,378	18·8	94	1·28	...	...	4	6	...	32	2	1	12	...	7	2	...	8	3	17
May	73,071	1,270	17·4	100	1·37	3	2	3	2	4	39	1	...	13	...	13	1	...	10	2	16
June	73,800	1,236	16·6	103	1·39	2	1	...	16	15	23	2	...	9	1	15	1	...	6	4	8
July	75,131	1,280	17·0	104	1·38	4	...	...	8	4	26	2	...	10	...	13	5	1	7	3	21
August	76,012	1,433	18·8	144	1·89	28	1	...	8	...	46	...	2	12	2	15	1	...	13	3	13
September	77,534	1,459	18·7	116	1·50	4	...	...	10	1	54	...	1	7	...	9	3	...	7	2	18
October	77,824	1,325	19·6	169	2·17	14	...	...	16	3	64	...	3	15	2	15	...	...	18	2	17
November	77,122	1,515	20·2	197	2·55	14	...	...	16	2	89	3	...	17	2	18	2	...	11	2	21
December	75,658	1,423	18·8	218	2·88	2	1	22	9	3	87	1	2	19	3	23	3	1	21	1	20
						72	8	102	1108	36	607	12	11	151	14	171	19	2	126	30	188
						Died per 1,000 of the Average Strength.															
For the ten years ...	75,038	1,391	18·5	1,659	22·11	·96	·11	1·36	1·47	·48	8·09	·16	·15	2·01	·18	2·28	·25	·03	1·68	·40	2·50

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	2	6	9	12	6	13	96	5	67	20	3	239	3·2	30·13
Smallpox	42	37	34	52	25	16	2	...	1	...	13	5	217	2·9	3·69
Enteric Fever ...	...	1	...	...	1	...	...	...	...	...	...	...	2	...	...
Contagious Fevers ...	106	134	108	52	18	8	...	...	...	8	18	47	499	6·7	20·44
Intermittent Fever ...	844	856	1,017	1,182	1,049	942	1,297	1,521	1,724	2,064	1,491	939	14,929	198·9	
Remittent and Continued Fevers ...	32	59	63	109	91	92	105	123	114	129	117	65	1,099	14·5	·69
Apoplexy	3	1	4	2	7	24	9	...	2	2	2	1	55	·7	65·45
Dysentery	358	227	266	289	230	203	289	463	438	408	551	438	4,129	55·0	7·15
Diarrhœa	319	253	339	400	339	358	424	295	380	341	363	330	4,362	58·1	
Hepatitis	1	2	4	8	3	4	11	3	3	6	6	4	62	·8	19·35
Spleen Disease ...	26	3	13	11	9	15	16	15	14	15	19	17	175	2·3	6·36
Respiratory Diseases ...	148	121	130	81	116	89	118	104	92	129	176	169	1,453	19·4	10·39
Phthisis Pulmonalis ...	47	23	32	43	33	28	28	33	24	36	31	49	407	5·4	42·01
Dropsy	4	6	6	2	8	2	2	3	6	5	8	6	58	·8	32·76
Atrophy and Anæmia ...	172	54	38	59	69	57	59	77	69	72	54	109	889	11·9	14·17
Scurvy	1	1	1	...	...	3	1	3	3	16	3	3	35	·5	5·71
Rheumatism	66	70	64	56	60	53	60	74	74	85	64	66	732	10·6	
Venereal Diseases ...	70	77	82	87	85	82	77	76	79	70	51	76	912	12·2	
Eye Diseases	37	58	105	138	112	99	94	64	83	67	69	44	961	12·8	1·62
Abscess and Ulcer ...	376	388	414	363	402	378	506	413	366	283	273	325	4,726	63·0	
Wounds and Accidents ...	139	156	183	207	205	205	191	188	198	132	128	122	2,059	27·4	
All other Causes ...	333	385	458	498	426	418	466	464	385	370	339	350	4,872	64·9	
	3,124	2,911	3,350	3,639	3,309	3,273	3,788	4,215	4,058	4,305	3,796	3,168	42,918		
	Admitted per 1,000 of the Average Strength in each Month.														
	42·5	39·3	45·7	49·4	45·2	44·3	50·4	55·4	52·3	55·3	49·2	41·9	572·0		

* Gonda Jail, from December 1867 to May 1868.
† One death was returned under the head of Enteric Fever in June 1874, the age being given as 60.

STATISTICS OF JAIL ADMINISTRATIONS—OUDH, 1867—76.

VI.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION included under the ADMINISTRATION OF OUDH, for each year of the TEN-YEAR PERIOD 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	6,580	23·1	21·3	23·5	25·2	22·6	20·8	22·2	23·3	28·0	28·7	24·0	26·0	24·0
1868	6,756	21·4	26·1	30·2	31·1	24·9	19·9	16·3	14·8	14·3	16·8	15·8	15·6	20·4
1869	7,718	14·9	17·8	15·7	16·4	17·4	16·6	15·4	15·7	15·5	15·2	17·9	17·6	16·3
1870	6,907	17·4	18·0	16·4	16·2	14·6	15·3	18·5	21·6	19·5	24·8	25·9	27·0	19·5
1871	6,903	34·1	24·2	17·4	16·3	15·3	15·6	15·6	17·8	20·1	20·7	21·2	19·1	19·8
1872	7,632	14·8	17·1	18·7	19·6	17·7	17·4	18·0	21·9	21·1	19·8	23·2	21·5	19·5
1873	8,614	19·8	22·1	17·6	17·3	16·7	15·8	14·9	16·4	19·4	19·8	19·9	17·2	18·0
1874	8,809	16·5	15·2	18·8	18·1	16·8	17·4	23·1	22·6	19·5	19·1	19·6	17·3	18·6
1875	8,148	15·1	15·1	15·7	15·0	14·6	13·2	12·9	17·2	16·7	17·7	18·8	14·6	15·6
1876	7,471	15·2	13·8	13·9	14·7	14·9	14·9	14·7	17·7	13·9	15·6	17·8	14·4	15·1
1867—76	75,038	19·0	18·8	18·6	18·8	17·4	16·6	17·0	18·8	18·7	19·6	20·2	18·8	18·5

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	55·9	54·1	77·4	84·2	67·8	56·0	72·7	92·4	78·7	62·9	70·1	55·5	812·9
1868	55·6	67·0	65·5	58·4	48·5	49·1	46·1	44·5	38·8	44·1	39·5	34·0	581·9
1869	33·4	35·0	31·2	37·6	47·5	37·5	40·2	36·6	29·1	32·5	50·8	42·7	453·9
1870	42·6	35·6	38·3	35·9	34·8	33·6	37·9	42·6	47·3	63·9	56·1	46·4	508·3
1871	52·7	30·6	30·1	41·6	38·2	40·5	42·2	49·5	52·1	52·6	45·0	36·1	517·3
1872	34·2	29·3	38·3	39·3	37·2	34·5	36·4	58·1	56·7	59·9	56·5	45·4	535·1
1873	43·6	43·9	43·9	51·5	47·1	52·8	48·0	60·1	65·0	65·1	51·9	46·9	624·7
1874	43·2	39·2	45·6	51·5	43·6	51·4	87·8	61·2	61·4	57·1	47·0	47·1	638·2
1875	37·1	36·9	47·3	46·8	47·6	42·4	41·3	62·1	51·5	53·3	46·1	31·8	532·2
1876	32·2	29·5	38·1	40·6	39·7	43·5	46·3	44·0	41·8	60·9	46·6	35·2	507·2
1867—76	42·5	39·3	45·7	49·4	45·2	44·3	50·4	55·4	52·3	55·3	49·2	41·9	572·0

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year.
	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	11·5	11·1	269·3	·2	178·4	·9	2·3	16·7	2·0	·6	5·0	·2	15·6	25·1	106·7	45·0	122·3	812·9
1868	...	63·1	198·9	·3	105·0	·3	1·5	14·5	5·3	·1	5·3	·4	12·9	14·7	58·8	20·0	90·8	581·9
1869	3·0	...	177·1	1·6	107·4	·8	3·1	20·7	5·2	·6	5·6	·3	7·1	13·2	44·6	15·2	48·4	453·9
1870	·6	...	214·5	·3	107·4	·3	2·7	17·7	11·7	1·2	13·2	3·0	7·2	9·4	52·7	15·1	54·3	508·3
1871	1·1	...	198·4	·2	110·6	·3	1·1	13·7	11·2	·2	31·6	·3	6·1	9·2	43·7	21·2	68·4	517·3
1872	10·0	...	205·2	...	119·1	2·1	1·7	13·0	3·8	1·3	13·6	...	6·7	10·5	42·8	27·9	77·4	535·1
1873	4·2	...	227·7	1·4	117·7	·8	3·2	21·6	3·8	·5	15·8	·1	10·3	10·6	77·6	34·4	95·0	624·7
1874	·4	...	251·9	·6	107·6	1·4	3·1	28·3	3·9	·9	13·3	·3	16·7	13·4	69·6	35·1	91·7	638·2
1875	1·6	...	213·2	·6	96·3	·7	2·1	21·9	4·8	·6	7·8	·2	12·0	9·6	57·3	30·4	85·3	544·4
1876	...	...	174·0	2·0	90·1	·4	1·7	21·8	4·0	1·6	8·6	...	9·8	13·9	75·2	27·5	76·6	507·2
1867—76	3·2	6·7	213·4	·7	113·1	·8	2·3	19·4	5·4	·8	11·9	·5	10·6	12·8	63·0	27·4	80·0	572·0

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.														
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.*	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	2·43	24·17	26·60	2·43	4·25	2·75	...	8·51	·30	·76	1·82	·15	1·37	·15	1·52	2·59	...	
1868	...	23·83	23·83	...	11·84	·59	·30	6·22	...	·15	1·31	·15	1·03	...	·59	1·18	·15	
1869	1·04	19·30	20·34	1·04	...	2·20	1·29	8·55	·13	·13	1·56	·13	1·94	·13	·52	2·46	·26	
1870	·14	23·46	23·60	·14	...	1·88	·29	11·01	·14	...	1·02	·14	3·77	·87	2·61	1·14	·29	
1871	·47	23·89	24·36	·47	...	·78	...	8·75	·16	...	1·56	·78	4·37	·16	3·12	3·90	·31	
1872	2·88	33·81	36·69	2·88	...	1·31	·13	18·87	·13	...	2·75	·39	3·02	·26	2·75	3·41	·79	
1873	1·74	22·87	24·61	1·74	...	1·02	·93	7·43	·35	·12	2·90	·12	2·20	·23	3·14	3·25	·58	
1874	...	16·01	16·01	...	...	1·59	·23	4·54	·11	...	2·61	...	1·48	·45	1·70	2·60	·79	
1875	·86	13·37	14·23	·86	...	·86	·37	4·42	·24	·37	1·47	·12	2·09	·12	·12	2·82	·37	
1876	...	13·12	13·12	...	...	·27	1·07	3·62	...	...	2·68	...	1·87	·13	·80	2·28	·49	
1867—76	·96	21·15	22·11	·96	1·36	1·47	·48	8·09	·16	·15	2·01	·18	2·28	·25	1·68	2·64	·49	

* The outbreak in the Gonda Jail of 1867 running into 1868.

STATISTICS OF JAIL ADMINISTRATIONS—CENTRAL PROVINCES, 1867—76.

VII.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in the JAIL POPULATION included under the ADMINISTRATION of the CENTRAL PROVINCES during the TEN-YEAR PERIOD 1867-76 and the prevalence of the principal Diseases in each Month.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever (1872 to 1876.)	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	33,442	1,497	44·8	110	3·29	...	...	...	7	2	55	...	1	13	1	1	1	1	11	...	17
February	33,682	1,362	40·5	76	2·26	...	...	...	7	...	35	...	1	10	1	3	2	3	9	1	4
March	33,570	1,307	39·2	80	2·40	6	...	...	12	1	20	1	1	17	...	3	1	1	9	...	8
April	33,327	1,259	37·8	66	1·98	2	...	...	13	...	20	...	...	10	2	2	1	1	5	5	5
May	33,387	1,258	37·7	58	1·74	6	...	...	18	3	12	...	1	9	...	2	...	...	5	...	2
June	33,846	1,228	36·3	55	1·62	12	...	...	4	5	19	...	...	3	2	2	...	...	5	...	5
July	34,086	1,297	38·1	95	2·78	32	...	...	2	...	25	...	...	6	...	2	...	...	8	1	17
August	34,079	1,590	46·7	130	3·81	19	...	...	5	...	59	4	...	9	...	2	1	1	16	2	12
September	34,333	1,841	53·7	165	4·81	3	...	...	13	...	91	4	...	12	1	4	2	6	11	3	15
October	34,329	2,003	58·3	169	4·92	2	...	1	17	...	86	1	2	11	2	1	7	5	12	3	19
November	33,789	1,875	55·5	167	4·94	...	...	...	10	1	81	2	2	18	3	4	1	3	22	3	17
December	33,290	1,590	47·8	141	4·24	1	...	...	9	...	76	...	2	14	2	2	5	3	10	2	15
				83	...	1	117	12	581	12	10	132	14	26	21	24	123	20	136		
				Died per 1,000 of the Average Strength.																	
For the ten years ...	33,742	1,509	44·7	1,312	38.88	2·46	...	·03	3·47	·36	17·22	·36	·30	3·91	·41	·77	·62	·71	3·64	·59	4·03

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	1	7	2	7	22	72	27	3	2	...	1	144	4·3	57·64
Smallpox	1	2	5	1	2	1	...	...	...	...	1	...	13	·4	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	2	...	...	2	·1	.....
Fever, Intermittent ...	1,217	1,045	1,098	1,101	1,003	938	1,243	1,744	2,534	2,796	2,058	1,373	18,210	539·7	·62
Fevers, Remittent and Continued ...	26	37	51	56	55	37	40	32	43	52	45	21	495	14·7	
Apoplexy	1	...	3	2	10	6	1	...	...	...	1	...	24	·7	50·00
Dysentery	251	264	234	169	195	247	484	704	498	351	384	307	3,998	118·5	8·47
Diarrhœa	194	128	165	187	204	199	399	452	310	240	200	172	2,859	84·7	
Hepatitis	...	3	1	1	3	4	2	4	5	4	4	1	32	·9	37·50
Spleen Disease	15	10	10	12	18	9	10	19	11	26	25	20	185	5·5	5·41
Respiratory Diseases ...	166	154	158	155	128	90	119	117	102	146	163	151	1,649	48·9	8·00
Phthisis Pulmonalis ...	6	1	5	1	2	3	1	3	5	4	4	2	37	1·1	70·27
Dropsy	3	1	2	2	2	...	1	3	2	8	6	5	34	1·0	61·76
Atrophy and Anæmia ...	37	31	30	21	30	27	20	29	40	47	80	41	433	12·8	24·41
Scurvy	3	11	26	5	...	6	16	23	60	38	21	23	232	6·9	10·34
Rheumatism	113	92	103	114	134	111	102	103	97	100	106	103	1,276	37·8	
Venereal Diseases ...	70	76	66	60	76	78	66	56	64	53	43	51	739	22·5	
Eye Diseases	25	30	42	70	56	55	75	70	59	88	45	24	639	18·9	1·08
Abscess and Ulcer ...	632	541	604	578	722	823	757	694	696	756	616	506	7,925	234·9	
Wounds and Accidents ...	138	114	147	137	152	144	160	112	140	101	82	123	1,550	45·9	
All other Causes ...	308	276	320	273	318	284	311	346	283	294	263	267	3,543	105·0	
	3,204	2,737	3,067	2,947	3,177	3,084	3,879	4,537	4,922	5,108	4,156	3,191	44,039		
	Admitted per 1,000 of the Average Strength in each Month.														
	95·8	82·9	92·2	88·4	95·2	91·1	113·8	133·1	143·4	148·8	123·9	95·9	1305·2		

STATISTICS OF JAIL ADMINISTRATIONS—CENTRAL PROVINCES, 1867—76

VIII.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION included under the ADMINISTRATION of the CENTRAL PROVINCES for each year of the TEN-YEAR PERIOD 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	3,583	57·3	44·5	49·1	49·5	49·4	45·4	42·5	50·3	68·6	80·9	75·2	64·6	56·4
1868	3,471	61·7	53·3	46·8	48·6	45·0	44·0	42·2	50·2	52·7	56·5	56·2	43·6	50·1
1869	3,731	43·5	45·6	45·3	43·4	49·4	48·9	50·8	55·5	62·2	74·1	75·1	58·6	54·7
1870	3,093	49·1	44·1	41·7	38·1	40·0	41·8	44·3	51·1	61·4	67·9	69·4	71·7	51·1
1871	2,716	57·0	53·2	47·1	38·1	33·6	30·6	34·7	34·5	37·7	41·7	49·4	47·3	42·0
1872	2,814	43·5	34·7	31·4	28·1	26·2	36·1	39·1	47·3	56·8	47·3	44·2	40·7	40·9
1873	3,427	31·8	24·4	27·8	27·6	26·9	22·8	23·3	33·1	41·4	45·9	39·0	31·8	31·5
1874	3,602	26·1	29·6	30·5	32·6	25·7	28·8	32·2	50·1	55·2	64·7	51·8	45·7	39·1
1875	3,545	40·5	36·3	34·3	33·5	32·2	28·8	34·8	42·5	52·1	51·1	54·7	45·1	40·6
1876	3,760	38·3	38·4	37·3	35·2	36·4	34·7	35·9	48·7	46·1	47·9	41·6	34·2	39·6
1867—76	33,742	44·8	40·5	39·2	37·8	37·7	36·3	38·1	46·7	53·7	58·3	55·5	47·8	44·7

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	109·7	86·8	101·8	130·8	125·1	103·5	135·4	136·6	203·7	239·6	184·9	136·9	1676·8
1868	130·1	103·2	110·9	103·3	105·7	119·1	126·6	138·7	126·0	133·7	119·3	91·7	1405·9
1869	107·6	115·5	131·9	122·3	143·1	134·3	167·8	167·7	182·5	201·0	153·5	114·4	1758·8
1870	107·9	90·3	87·9	99·8	116·9	112·8	131·9	152·1	155·1	167·4	159·0	142·3	1506·0
1871	109·9	116·0	106·1	92·7	101·6	81·8	103·3	117·4	112·4	138·0	121·4	115·4	1315·5
1872	101·9	68·2	90·6	84·7	109·6	94·7	122·5	156·1	208·6	160·1	117·2	92·5	1439·7
1873	76·3	59·2	79·3	76·5	64·6	68·0	85·4	104·9	109·9	106·3	85·3	74·2	967·1
1874	68·1	67·5	69·3	72·4	59·1	68·0	89·5	136·6	122·0	151·9	107·1	79·6	1086·6
1875	79·5	59·2	79·8	58·6	62·1	61·7	87·3	106·1	115·7	91·6	113·3	71·3	987·6
1876	70·3	56·1	68·6	63·7	68·8	69·4	87·6	115·5	101·6	97·7	78·3	58·4	939·4
1867—76	95·8	82·9	92·2	88·4	95·2	91·1	113·8	133·1	143·4	148·8	125·9	95·9	1306·2

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year.
	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1868	...	831·8	1·4	189·8	2·8	8·1	53·6	1·1	·3	10·6	1·7	37·1	22·3	269·0	74·0	170·2	1676·8
1867	2·0	641·3	1·2	146·6	·9	4·9	51·0	·3	1·7	7·2	6·0	46·7	23·6	256·7	53·6	162·2	1405·9
1869	23·9	701·7	2·1	358·6	·3	4·8	57·4	1·3	1·9	11·5	1·9	48·3	23·3	234·5	55·5	141·8	1758·8
1870	·3	633·7	...	233·8	·3	6·8	27·0	1·0	·7	5·2	5·9	85·7	12·6	279·7	44·0	119·3	1506·0
1871	1·5	618·2	·7	174·2	·4	7·7	37·9	1·1	·7	6·6	1·5	39·8	15·1	236·4	36·4	137·3	1315·5
1872	2·1	607·0	...	261·6	...	5·7	35·5	·4	2·1	11·4	12·1	42·6	18·8	239·6	50·1	120·7	1439·7
1873	·3	385·2	...	178·6	1·2	4·4	28·6	1·4	·3	4·4	3·8	23·6	19·0	204·5	38·8	103·0	967·1
1874	...	454·2	1·1	163·5	1·4	4·4	37·8	·6	·3	19·7	16·9	24·2	21·4	223·4	30·9	101·8	1086·6
1875	7·1	356·8	...	171·8	1·1	6·2	43·7	2·3	1·7	20·0	8·2	20·9	15·8	201·7	37·8	113·4	987·6
1876	2·9	295·5	·2	156·4	·8	2·7	62·8	1·3	·5	27·6	10·4	18·4	15·7	218·6	30·9	94·7	939·4
1867—76 ...	4·3	554·5	·7	263·2	·9	5·5	48·9	1·1	1·0	12·8	6·9	37·8	18·9	234·9	45·9	127·9	1306·2

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	...	40·75	40·75	...	...	5·86	·56	20·09	·28	·84	3·91	...	·56	·28	3·91	4·19	·28
1868	1·73	27·08	28·81	1·73	...	5·76	·58	11·52	·58	...	2·30	·58	·29	·29	1·73	3·16	·29
1869	12·60	51·72	64·32	12·60	...	4·02	1·07	31·63	·27	...	4·29	...	·80	·80	4·82	3·48	·54
1870	·32	43·97	44·29	·32	...	4·20	·32	20·05	·32	...	3·88	·32	·32	·65	3·23	9·71	·97
1871	·74	25·77	26·51	·74	...	2·94	·74	10·67	...	·37	3·31	·37	1·47	·74	·37	2·58	2·21
1872	1·42	38·73	40·15	1·42	...	3·55	...	21·32	...	1·07	2·13	...	·71	1·42	5·33	3·20	...
1873	...	30·64	30·64	...	...	3·21	...	15·76	·58	·29	2·03	1·17	...	·58	2·61	3·50	·29
1874	...	26·10	26·10	...	...	1·67	...	16·93	·28	...	2·50	1·11	·28	·28	5·83	6·39	·83
1875	4·80	28·49	33·29	4·80	...	2·54	...	7·34	·56	·28	6·77	·28	1·41	·28	2·82	6·21	...
1876	1·59	38·57	40·16	1·59	...	1·33	·27	15·69	·53	·27	6·65	·27	1·86	1·06	5·05	4·79	·80
1867—76 ...	2·46	36·42	38·88	2·46	...	3·50	·36	17·22	·26	·30	3·91	·41	·77	·62	3·64	4·74	·59

STATISTICS OF JAIL ADMINISTRATIONS—NORTH-WESTERN PROVINCES, 1867—76.

IX.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in the JAIL POPULATION included under the ADMINISTRATION of the NORTH-WESTERN PROVINCES during the TEN-YEAR PERIOD 1867-76, and the prevalence of the principal Diseases in each Month.

MONTHS.	Aggregate of the Average Strength in each month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever (1872 to 1876.)	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	186,105	4,455	23·9	630	3·39	...	8	1	56	1	270	1	4	141	4	30	5	1	38	11	65
February	186,483	4,188	22·5	377	2·02	27	5	...	32	5	135	2	1	76	...	17	7	...	30	6	34
March	186,620	4,108	22·0	295	1·58	16	3	...	35	4	89	1	5	59	2	13	4	...	22	5	37
April	187,429	4,343	23·2	328	1·75	17	4	...	37	1	129	2	3	64	2	16	3	...	15	6	29
May	188,982	4,221	22·3	340	1·80	5	2	...	48	31	95	2	3	53	1	25	3	...	32	4	36
June	191,904	4,140	21·6	329	1·71	5	3	...	31	62	73	2	8	50	1	22	4	...	25	7	36
July	195,061	4,555	23·4	349	1·79	51	1	...	26	3	100	3	5	45	3	30	4	...	19	12	38
August	197,194	5,855	29·7	568	2·88	73	1	...	47	4	239	3	15	43	2	36	7	...	35	16	47
September	198,715	6,821	34·3	797	4·01	59	..	1	63	2	441	4	5	72	5	39	1	1	47	9	57
October	197,851	7,193	36·4	960	4·85	16	...	...	95	6	568	2	11	86	4	31	13	2	52	8	68
November	196,071	6,194	31·6	955	4·87	11	...	...	85	4	561	...	7	91	4	46	8	1	60	6	71
December	193,430	5,265	27·2	877	4·53	2	...	...	56	5	488	1	5	133	10	32	8	3	58	8	68
						282	21	2	611	128	3,195	23	72	913	38	328	67	8	433	98	586
						Died per 1,000 of the Average Strength.														
For the ten years ...	192,160	5,114	26·6	6,805	35·41	1·47	·11	·01	3·18	·66	16·63	·12	·37	4·75	·20	1·71	·35	·04	2·25	·51	3·05

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	...	...	...	1	5	80	253	48	4	...	400	2·1	...
Cholera	1	91	40	27	12	12	104	146	92	24	19	3	571	3·0	49·38
Smallpox	43	61	82	70	65	39	5	5	2	3	18	36	426	2·2	4·92
Enteric Fever ...	1	...	...	1	4	1	...	1	...	...	...	...	8	...	25·00
Fever, Intermittent ...	2,439	2,146	2,666	3,516	3,730	3,202	4,342	7,264	8,723	8,869	5,163	3,250	55,310	287·8	1·06
Fevers, Remittent and Continued	135	146	208	277	258	173	130	204	268	255	195	141	2,390	12·4	
Apoplexy	1	5	5	1	104	261	11	5	3	10	6	4	416	2·2	30·77
Dysentery	841	489	655	714	608	556	1,027	2,248	2,378	2,011	1,625	1,313	14,465	75·3	12·34
Diarrhœa	631	491	789	911	754	717	998	1,740	1,368	1,041	1,067	909	11,418	59·4	
Hepatitis	8	7	18	12	14	8	8	14	17	12	5	7	130	·7	17·70
Spleen Disease	88	49	50	64	72	74	67	74	71	84	82	69	844	4·4	8·53
Respiratory Diseases ...	716	532	488	470	405	376	374	318	325	426	503	693	5,626	29·3	16·23
Phthisis Pulmonalis ...	35	29	28	40	41	43	48	35	37	37	40	41	454	2·4	72·25
Dropsy	11	12	15	10	9	11	8	8	7	17	11	11	130	·7	51·54
Atrophy and Anæmia ...	188	122	123	121	130	143	129	163	171	199	176	216	1,881	9·8	23·02
Scurvy	5	8	3	7	29	5	9	22	60	66	12	11	237	1·2	3·38
Rheumatism	172	130	178	166	157	192	187	158	206	200	214	181	2,141	11·2	
Venereal Diseases ...	239	220	251	276	281	271	290	270	236	255	223	291	3,022	15·7	
Eye Diseases	160	81	181	239	292	187	221	230	245	209	205	112	2,331	12·1	1·46
Abscess and Ulcer ...	1,811	1,746	1,724	1,720	1,833	2,415	2,626	2,057	1,740	1,684	1,523	1,505	22,384	116·5	
Wounds and Accidents ...	611	650	834	875	842	911	930	767	755	611	617	593	8,906	46·3	
All other Causes	870	828	970	1,003	938	947	1,012	1,093	902	857	769	753	10,852	56·5	
	8,955	7,845	9,308	10,546	10,578	10,536	12,540	16,821	17,859	16,918	12,477	9,959	144,342		
	Admitted per 1,000 of the Average Strength in each Month.														
	48·1	42·1	49·9	56·3	56·0	54·9	64·3	85·3	89·9	85·5	63·7	51·5	751·2		

STATISTICS OF JAIL ADMINISTRATIONS—NORTH-WESTERN PROVINCES, 1867—76.

X.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION included under the ADMINISTRATION of the NORTH-WESTERN PROVINCES for each year of the TEN-YEAR PERIOD 1867-76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	15,193	17·0	18·0	19·3	20·3	21·3	19·0	19·2	24·1	26·0	27·8	24·1	20·3	21·3
1868	15,651	18·0	18·5	20·3	21·2	21·2	19·9	19·9	22·0	24·3	22·5	20·4	18·1	20·6
1869	18,861	16·9	16·8	17·7	20·9	21·3	23·2	25·7	27·2	28·9	29·6	26·4	23·4	23·4
1870	18,492	21·5	21·6	22·7	24·9	24·7	21·2	21·3	27·2	32·7	35·8	35·3	32·8	26·6
1871	16,806	27·0	21·4	22·3	22·2	20·3	17·9	22·2	27·4	31·7	42·3	38·7	31·7	27·3
1872	17,918	27·8	25·5	23·4	24·6	24·6	23·6	25·0	35·4	45·8	41·7	33·3	27·3	30·0
1873	20,164	25·6	25·6	23·7	25·6	24·1	24·7	24·4	33·9	40·8	45·7	35·8	33·2	30·6
1874	22,847	27·1	24·4	23·1	24·7	23·9	24·9	31·8	47·3	50·1	51·8	42·7	37·3	34·4
1875	23,048	33·0	28·2	24·1	23·1	21·0	20·1	20·1	23·0	28·3	30·4	29·1	23·3	25·3
1876	22,568	21·2	21·2	21·8	22·8	20·7	20·3	21·8	25·1	27·5	31·4	27·0	21·9	23·6
1867—76	192,160	23·9	22·5	22·0	23·2	22·3	21·6	23·4	29·7	34·3	36·4	31·6	27·2	26·6

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	43·3	38·4	49·2	69·8	58·4	57·5	68·5	78·6	71·8	78·2	62·1	49·1	718·6
1868	49·7	45·2	53·1	54·2	56·1	50·3	57·0	66·1	61·1	55·0	48·6	40·5	637·5
1869	40·6	38·8	55·4	69·8	65·9	70·6	73·3	82·6	82·2	85·0	65·9	56·0	787·0
1870	49·2	49·9	55·9	67·8	60·6	54·3	60·1	81·7	92·5	104·0	84·0	68·9	830·2
1871	51·3	37·8	50·8	52·5	50·9	53·5	65·7	90·4	114·6	117·5	84·2	57·9	821·6
1872	55·7	46·6	54·4	64·3	64·2	60·6	76·3	117·5	129·7	97·8	67·0	51·9	803·7
1873	57·9	45·7	51·3	61·4	59·6	62·9	64·7	103·2	109·3	91·3	65·4	55·7	809·0
1874	49·2	45·4	46·8	48·4	52·9	54·3	85·8	111·0	99·4	86·1	67·4	56·6	820·9
1875	47·7	38·4	43·1	51·1	47·1	43·7	44·5	59·1	70·8	71·2	55·2	43·6	616·2
1876	38·4	36·1	40·9	48·6	44·0	47·2	50·6	63·7	65·0	63·8	45·2	37·4	582·7
1867—76 ...	48·1	42·1	49·9	56·3	56·0	54·9	64·3	85·3	89·9	85·5	63·7	51·5	751·2

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year.
	Cholera.	Fevers.*	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	5·3	280·9	·6	100·6	1·0	2·0	24·2	2·8	·5	4·3	·4	12·5	13·0	129·1	39·6	95·8	718·6
1868	1·0	203·1	·4	107·5	·7	4·3	29·1	2·4	·8	3·8	1·7	13·6	12·1	127·8	40·1	98·1	637·5
1869	8·8	280·5	13·5	163·7	·9	4·4	26·3	2·2	·6	7·5	1·6	12·6	13·6	127·4	39·6	86·8	787·0
1870	5·6	300·2	1·0	183·0	1·1	6·2	25·0	1·9	1·6	11·0	1·9	11·3	13·0	99·6	39·6	71·2	830·2
1871	·2	391·4	·6	153·4	·5	4·6	27·7	1·2	1·0	7·1	·6	12·4	12·5	101·3	46·5	63·6	824·6
1872	3·8	355·6	·3	174·9	·6	4·1	31·1	2·3	·6	10·8	1·0	12·8	13·1	127·5	56·0	99·2	893·7
1873	2·9	318·6	2·2	155·9	·5	3·7	39·0	2·8	·4	8·1	1·3	9·9	13·5	154·5	53·5	71·2	839·0
1874	2·2	357·8	·4	135·4	·7	4·9	38·7	3·4	·5	11·9	·4	9·4	10·2	119·1	51·0	71·9	820·9
1875	1·0	247·3	·9	92·4	·4	4·7	28·3	2·5	·6	11·2	·7	7·7	10·7	92·2	47·8	67·7	616·2
1876	·1	217·8	1·7	87·4	·5	4·5	27·6	1·8	·5	17·6	2·6	11·4	10·6	96·2	48·0	54·4	582·7
1867—76	3·0	300·2	2·2	134·7	·7	4·4	29·3	2·4	·7	9·8	1·2	11·2	12·1	116·5	46·3	76·5	751·2

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	2·17	22·84	25·01	2·17	...	3·23	·13	10·33	·20	·13	2·01	·13	1·78	·89	1·51	2·50	·45
1868	·58	20·04	20·62	·58	...	2·75	·32	8·62	·13	·38	2·36	·06	1·33	·06	1·21	2·43	·19
1869	4·44	35·32	39·76	4·44	...	3·87	2·97	16·97	·11	·53	4·03	·16	1·49	·26	2·02	2·33	·58
1870	1·73	46·67	48·40	1·73	...	6·33	·22	25·35	·38	·38	4·16	·16	1·14	·49	4·70	1·97	·99
1871	·12	39·45	39·57	·12	...	5·47	·12	21·18	·06	·36	4·91	·30	·95	·53	1·61	3·15	·48
1872	2·57	40·46	43·03	2·57	...	1·84	·11	24·05	·05	·34	4·86	·11	1·95	·78	2·29	3·52	·26
1873	1·54	42·80	44·34	1·54	...	1·59	·89	21·22	·05	·30	7·49	·35	2·78	·10	1·93	5·31	·79
1874	1·31	39·35	40·66	1·31	...	2·71	·26	18·87	·13	·44	6·26	·18	2·10	·39	3·37	3·18	·66
1875	·59	26·26	26·85	·59	...	3·51	·50	9·08	·13	·59	5·16	·30	1·45	·21	1·57	3·26	·50
1876	·04	24·30	24·34	·04	...	1·28	·66	11·30	...	·22	4·70	·18	1·73	·31	1·99	2·17	·27
1867—76	1·47	33·94	35·41	1·47	...	3·19	·66	16·63	·12	·37	4·75	·20	1·71	·35	2·25	3·20	·51

* No outbreak of Contagious Fever occurred during the ten years.

STATISTICS OF JAIL ADMINISTRATIONS—PUNJAB, 1867—76.

XI.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in the JAIL POPULATION included under the ADMINISTRATION of the PUNJAB during the TEN-YEAR PERIOD 1867-76, and the prevalence of the principal Diseases in each Month.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever (1872 to 1876).	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	128,031	3,295	25·7	484	3·78	...	...	...	47	50	2	108	2	4	184	3	13	1	1	16	5	48
February	127,588	3,229	25·3	341	2·69	...	3	...	73	47	1	43	1	3	117	3	7	2	...	7	3	33
March	126,347	3,210	25·4	332	2·63	...	1	...	109	47	3	31	1	3	93	...	12	1	...	7	2	22
April	126,636	3,457	27·3	219	1·73	...	...	...	60	43	2	29	1	1	44	2	6	3	...	3	9	18
May	126,692	3,532	27·9	236	1·87	9	1	...	26	55	4	49	1	2	43	1	6	2	...	7	12	27
June	128,080	3,440	26·9	226	1·76	16	...	...	11	39	41	26	1	...	43	2	9	1	...	5	5	33
July	130,405	3,204	24·6	167	1·28	23	...	1	...	28	22	21	1	...	28	5	6	1	...	2	9	17
August	132,968	4,563	34·3	219	1·65	45	1	...	1	47	3	53	...	2	17	3	8	1	...	10	8	20
September	134,259	5,880	43·8	360	2·68	40	...	...	1	81	2	121	2	2	46	1	16	7	1	3	9	25
October	134,370	6,400	47·6	465	3·46	11	...	...	13	136	4	147	2	6	69	1	11	4	1	12	12	38
November	133,008	5,567	41·9	580	4·36	1	...	2	18	142	3	200	3	2	116	4	9	11	...	20	11	38
December	130,947	3,982	30·4	562	4·29	...	1	1	26	76	1	190	1	...	186	2	11	4	...	17	5	41
						110	7	4	385	794	88	1,012	16	25	986	27	114	37	3	108	90	358
						Died per 1,000 of the Average Strength.																
For the ten years	129,933	4,147	31·9	4,193	32·27	·07	·05	·03	2·96	6·11	·68	7·79	·12	·19	7·59	·21	·88	·29	·02	·83	·69	2·76

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	...	...	...	3	3	...	...	6	...	...
Cholera	...	...	...	...	22	22	52	99	71	13	5	...	284	2·2	48·94
Smallpox	10	8	8	5	4	2	1	2	...	...	2	9	51	·4	13·73
Enteric Fever (1872 to 1876)	1	...	1	1	1	1	...	...	...	1	3	2	11	·1	36·36
Contagious Fevers	247	632	901	537	188	78	20	1	...	315	151	87	3,152	24·3	12·21
Intermittent Fever	3,289	2,464	2,856	3,717	4,583	4,367	4,588	10,983	15,510	15,489	9,647	5,210	82,663	636·2	92
Remittent and Continued Fevers	195	259	302	245	272	210	177	283	699	686	360	178	3,778	29·1	
Apoplexy	2	3	4	5	16	97	63	6	3	6	6	1	212	1·6	41·51
Dysentery	534	329	383	507	566	498	496	889	1,047	1,148	1,081	812	8,281	63·7	6·49
Diarrhœa	351	343	415	556	552	539	608	859	778	668	629	497	6,896	52·7	
Hepatitis	12	5	5	12	9	6	7	9	8	7	5	6	91	·7	17·58
Spleen Disease	80	68	65	76	69	82	56	63	105	144	145	116	1,069	8·2	2·34
Respiratory Diseases	1,096	842	613	437	427	351	262	267	287	402	747	1,073	6,804	52·4	14·49
Phthisis Pulmonalis	29	24	17	20	20	25	18	13	28	14	22	23	244	1·9	46·72
Dropsy	15	8	15	12	15	10	12	15	18	15	18	18	171	1·3	21·64
Atrophy and Anæmia	107	95	45	71	63	82	76	58	57	85	98	124	961	7·4	11·24
Scurvy	31	21	40	33	23	28	29	23	29	22	26	25	321	2·5	93
Rheumatism	183	156	168	158	169	187	199	163	142	145	131	146	1,929	14·8	
Venereal Diseases	152	117	168	166	172	185	136	138	118	127	109	122	1,710	13·2	
Eye Diseases	68	93	145	242	299	229	182	233	215	131	96	79	2,012	15·5	1·37
Abscess and Ulcer	932	895	1,021	1,211	1,374	1,720	1,835	1,547	1,130	915	856	976	14,212	109·4	
Wounds and Accidents	236	206	329	398	434	394	423	358	315	291	250	235	3,929	30·2	
All other Causes	773	761	981	1,029	1,081	1,140	1,134	1,045	808	710	666	709	10,837	83·4	
	8,329	7,351	8,462	9,438	10,350	10,053	10,416	17,054	21,312	21,297	15,044	10,448	140,574		
	Admitted per 1,000 of the Average Strength in each Month.														
	65·1	57·6	67·1	74·5	81·8	78·5	79·9	128·3	158·7	158·5	113·1	79·8	1151·2		

STATISTICS OF JAIL ADMINISTRATIONS—PUNJAB, 1867—76.

XII.

GENERAL STATISTICS of SICKNESS and MORTALITY among the JAIL POPULATION included under the ADMINISTRATION of the PUNJAB for each year of the TEN-YEAR PERIOD 1867—76.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.												Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	10,506	17·6	16·6	20·7	29·8	31·8	23·9	22·2	23·8	52·6	43·4	32·9	20·8	28·1
1868	11,056	19·0	18·4	18·2	19·3	22·7	19·8	18·2	21·3	23·2	27·6	39·8	26·7	23·1
1869	17,381	23·3	22·0	21·2	27·4	22·2	23·8	20·7	22·6	35·4	58·4	56·5	31·2	31·8
1870	12,785	28·5	32·2	23·0	24·5	24·4	23·0	20·5	25·6	30·5	39·2	29·2	21·6	27·3
1871	13,385	20·6	25·3	18·9	17·2	19·7	19·6	20·6	28·1	26·7	24·1	23·3	19·8	22·0
1872	13,512	15·7	16·7	19·9	20·0	19·9	21·4	22·5	37·3	42·2	47·1	40·8	33·4	28·3
1873	13,883	32·6	33·1	35·4	33·9	31·9	28·5	25·4	30·1	60·1	62·5	44·0	35·3	38·5
1874	14,619	33·2	20·7	29·1	29·8	30·9	30·4	26·3	31·1	38·8	52·3	50·2	29·1	34·3
1875	14,347	29·5	28·2	28·5	30·6	32·0	31·8	28·2	43·4	46·8	48·1	44·4	38·5	35·0
1876	13,479	33·5	27·8	26·3	38·8	42·7	46·4	38·1	60·6	72·5	69·6	56·6	45·6	46·5
1867—76	129,533	25·7	25·3	25·4	27·3	27·9	26·9	24·6	34·3	43·8	47·6	41·9	30·4	31·0

II.—ADMISSION-RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission-rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	43·7	40·3	62·3	86·0	67·1	72·6	82·1	88·9	191·8	139·8	88·2	58·0	1028·1
1868	51·5	46·9	50·2	60·6	67·2	58·3	62·5	72·5	66·9	98·1	91·6	57·9	790·1
1869	43·7	51·5	77·0	67·2	61·2	67·0	63·8	125·4	138·0	221·0	155·5	74·3	1156·6
1870	80·7	72·5	64·8	69·8	77·2	71·0	79·7	110·5	147·6	141·6	84·4	59·7	1027·1
1871	55·5	55·5	54·1	53·3	63·5	65·5	81·9	112·9	90·6	73·0	60·2	47·5	825·7
1872	41·0	44·8	60·5	65·6	67·0	67·2	83·2	150·2	184·8	153·8	127·5	104·3	1106·1
1873	103·2	81·1	81·3	82·9	96·0	95·3	81·9	143·9	198·9	178·2	112·5	89·6	1300·7
1874	71·2	57·8	70·2	78·8	88·8	72·9	74·6	114·8	128·1	163·1	99·8	73·4	1069·7
1875	68·9	59·2	69·8	68·1	89·6	91·6	79·3	129·0	157·1	184·5	140·8	110·0	1234·0
1876	83·4	59·6	76·4	112·3	129·7	114·8	105·2	213·6	220·0	233·2	160·3	116·6	1677·0
1867—76	65·1	57·6	67·1	74·5	81·8	78·5	79·9	129·3	158·7	158·5	113·1	79·8	1151·2

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year.
	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	7·2	28·2	586·2	1·6	105·5	1·1	14·4	28·0	1·1	1·0	4·9	·81	15·7	14·9	92·3	22·4	95·5	1028·1
1868	...	...	567·8	1·1	88·1	1·1	5·9	29·1	1·6	·6	7·8	6·5	17·2	22·6	110·4	32·5	97·8	790·1
1869	3·5	80·4	709·2	1·8	94·4	·3	4·8	21·5	1·4	·9	6·1	3·7	14·1	17·5	88·6	28·3	89·1	1156·6
1870	...	...	660·1	·8	115·2	·6	5·9	58·1	2·1	·9	3·6	2·0	14·2	16·1	76·3	24·5	94·7	1027·1
1871	...	12·9	447·2	3·0	87·5	·5	7·2	39·1	1·8	1·3	4·2	1·3	11·2	13·4	80·4	27·7	87·0	825·7
1872	6·7	14·9	693·8	·9	143·7	1·4	6·5	53·0	1·9	·9	8·0	2·1	13·6	13·5	89·3	26·6	89·3	1106·1
1873	...	75·7	729·5	1·3	149·0	·6	9·8	85·5	1·7	1·7	12·9	·8	16·5	18·1	116·4	31·9	109·3	1300·7
1874	...	33·9	581·2	1·3	82·4	·9	9·8	77·8	2·5	2·6	6·2	1·6	16·5	12·7	109·0	38·0	120·9	1069·7
1875	3·1	...	708·2	2·0	139·2	·6	9·8	56·7	1·8	1·5	6·6	1·0	13·8	15·5	130·1	39·1	105·0	1234·0
1876	2·2	...	1107·7	2·4	159·2	·2	8·4	59·6	2·6	1·3	12·8	·5	16·0	12·1	192·3	28·3	80·4	1677·0
1867—76	2·2	24·3	665·4	1·6	116·4	·7	8·2	52·4	1·9	1·3	7·4	2·5	14·8	15·5	109·4	30·2	97·0	1151·2

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Contagious Fevers.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
1867	3·90	20·76	24·66	3·90	2·95	4·47	1·05	5·62	·19	·10	2·85	·48	·38	·10	·57	1·81	·19
1868	...	12·39	12·39	...	...	2·90	·36	3·08	...	·27	2·08	·18	·72	...	·63	1·63	·45
1869	1·78	31·58	33·36	1·78	7·11	7·43	·84	7·43	·24	·16	3·88	·08	·81	·48	·57	2·26	·32
1870	...	35·98	35·98	...	...	11·73	·29	8·14	·24	·16	9·85*	...	·80	·31	·86	2·82	·02
1871	...	27·19	27·19	...	3·59	3·96	·95	6·72	·08	·37	5·08	·08	·82	·37	·75	2·62	·99
1872	3·03	31·46	34·49	3·03	2·81	5·11	·30	10·36	·22	...	7·33†	·23	1·04	·37	·81	2·22	·07
1873	...	48·76	48·76	...	10·75	7·64	1·08	7·37	·07	·29	14·21	·36	·94	·14	1·30	3·61	·80
1874	...	32·08	32·08	...	2·33	4·17	·37	5·88	·14	·14	10·81	·21	·95	·31	·89	5·13†	·61
1875	1·96	30·25	31·71	1·96	...	7·53	·27	7·53	·07	·35	7·81	·42	·84	·28	·56	2·96	1·25
1876	1·04	35·61	36·65	1·04	...	5·41	·81	14·39	...	·08	8·38	·08	1·26	·37	1·26	2·68	·89
1867—76	1·07	31·20	32·27	1·07	2·96	6·14	·68	7·79	·12	·19	7·59	·21	·88	·29	·83	2·83	·69

* Pneumonia, apparently contagious, in several jails.

† Erysipelatous sore-throat in several jails.

STATISTICS OF JAIL ADMINISTRATIONS, 1867—76.

XIII.

TABLE showing in the AGGREGATE the SICKNESS and MORTALITY in JAILS in charge of POLITICAL OFFICERS which have furnished RETURNS during the TEN-YEAR PERIOD 1867—76, and the prevalence of the principal Diseases in each Month.

[The Jails which have furnished Returns for the whole or portions of the period are Nagode, Sehore, Ajmere, and Bonur. The aggregate is shown here to supplement the Provincial Statements, and complete the Statistics as they appear in the Annual Returns.]

MONTHS.	Aggregate of the Average Strength in each Month, 1867—76.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	5,055	269	51·4	20	...	...	...	...	3	1	6	1	...	6	1	...	1	...	...	...	1
February	5,003	265	53·0	15	...	...	...	...	1	...	5	...	...	8	...	...	...	...	...	...	1
March	4,871	516	51·5	13	...	...	1	...	1	...	3	...	...	5	...	...	1	...	...	1	1
April	4,868	226	54·6	9	...	...	...	...	3	...	2	...	...	3	...	...	...	...	...	1	...
May	4,856	261	53·7	16	...	7	...	...	2	...	1	...	...	1	...	...	...	...	...	1	4
June	4,951	273	55·1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
July	5,149	292	56·7	11	...	4	...	...	5	...	2	...	...	...	...	...	...	...	...	...	...
August	5,236	339	64·7	18	...	3	...	...	2	...	8	...	...	...	...	...	...	...	2	1	2
September	5,293	413	78·0	16	...	2	...	...	5	...	9	...	...	...	...	...	...	...	...	...	...
October	5,225	438	83·8	26	...	...	...	...	5	...	14	...	...	5	...	...	...	...	1	...	1
November	5,074	387	76·3	24	...	...	...	...	6	...	9	...	...	2	...	...	1	...	3	1	2
December	4,988	294	52·9	27	...	...	...	...	4	...	16	...	...	3	...	...	2	...	1	...	1
						16	1	...	37	1	75	1	...	33	1	...	5[*]	...	7	7	13
						Died per 1,000 of the Average Strength.															
For the ten years ...	5,048	309	61·2	197*	39·03	3·17	·20	...	7·33	·20	14·86	·20	...	6·53	·20	...	·99	...	1·39	1·39	2·27

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	35	2	2	11	3	...	...	...	53	10·5	30·19
Smallpox	...	...	2	...	...	...	...	...	...	...	...	...	2	·4	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fever, Intermittent ...	153	149	151	181	162	121	209	326	429	623	352	167	3,023	598·8	1·08
Fevers, Remittent and Continued	15	18	26	36	21	31	47	42	58	53	24	20	391	77·5	33·33
Apoplexy	1	1	...	...	1	...	...	...	...	...	...	...	3	·6	6·52
Dysentery	46	26	33	45	32	35	70	151	150	86	77	82	833	165·0	12·50
Diarrhœa	12	15	22	27	18	25	42	56	31	29	25	15	317	62·8	3·8
Hepatitis	...	...	...	3	1	1	2	1	...	...	...	...	8	1·6	7·75
Spleen Disease ...	3	1	...	1	2	1	...	1	...	5	4	1	19	3·8	.....
Respiratory Diseases ...	45	66	45	46	33	27	25	20	17	35	30	37	426	84·4	38·46
Phthisis Pulmonalis ...	1	1	...	...	1	...	...	...	...	1	...	...	4	·8	.....
Dropsy	2	...	1	...	...	1	...	...	1	1	3	4	13	2·6	9·09
Atrophy and Anæmia ...	10	7	3	3	7	2	3	5	6	12	11	8	77	15·2	.....
Scurvy	...	3	...	...	2	...	2	...	...	1	2	1	11	2·2	.....
Rheumatism	21	19	19	9	15	21	21	25	15	10	9	12	196	38·8	30·9
Venereal Diseases ...	11	10	14	15	14	16	20	13	8	14	12	9	156	30·9	29·5
Eye Diseases	6	6	11	16	8	12	17	21	24	17	7	4	149	29·5	·64
Abscess and Ulcer ...	105	79	107	97	106	156	121	130	97	94	84	75	1,251	247·8	
Wounds and Accidents ...	25	26	28	37	49	40	29	20	21	18	22	13	328	65·0	
All other Causes	64	67	102	112	129	142	133	136	122	74	73	48	1,202	238·1	
	520	494	564	628	636	633	743	958	992	1,073	735	496	8,462		
	Admitted per 1,000 of the Average Strength in each Month.														
	102·9	98·7	115·8	129·0	131·0	127·9	144·3	183·0	185·5	205·4	144·9	99·4	1676·3		

* In 1869, 75 deaths occurred in these jails. The year was universally unhealthy, and the population in Rajpootana was suffering heavily from the effects of famine.

STATISTICS OF JAIL ADMINISTRATIONS, 1867—76.

XIV.

COMPARATIVE STATEMENT of the RATIOS of SICKNESS and MORTALITY among the JAIL POPULATION included under the various ADMINISTRATIONS in the BENGAL PRESIDENCY, on the average of the TEN YEARS from 1867 to 1876.

	Ratio per 1,000 of the Average Strength.					
	Bengal Proper.	Oudh.	Central Provinces.	North-Western Provinces.	Punjab.	Bengal Presidency.
1.—Average Daily Sick-rate of each Month.						
January	35·1	19·0	44·8	23·9	25·7	28·5
February	33·6	18·8	40·5	22·5	25·3	27·3
March	34·6	18·6	39·2	22·0	25·4	27·4
April	36·5	18·8	37·8	23·2	27·3	28·7
May	34·7	17·4	37·7	22·3	27·9	27·8
June	34·1	16·6	36·3	21·6	26·9	27·1
July	38·2	17·0	34·1	23·4	24·6	28·5
August	41·7	18·8	46·7	29·7	34·3	34·2
September	41·9	18·7	53·7	34·3	43·8	38·1
October	41·8	19·6	58·3	36·4	47·6	39·9
November	42·0	20·2	55·5	31·6	41·9	37·1
December	38·4	18·8	47·8	27·2	30·4	31·6
Annual Average for the Period	37·7	18·5	44·7	26·6	31·9	31·4
2.—Monthly Admission-rate from all Causes.						
January	85·0	42·5	93·8	48·1	65·1	65·5
February	79·6	39·3	82·0	42·1	57·6	59·3
March	99·7	45·7	92·2	49·9	67·1	71·3
April	103·3	49·4	88·4	56·3	74·5	76·2
May	97·1	45·2	95·2	56·0	81·8	75·5
June	95·5	44·3	91·1	54·9	78·5	73·7
July	119·5	59·4	113·8	64·3	79·9	80·3
August	123·4	55·4	133·1	85·3	128·3	105·7
September	114·2	52·3	143·4	89·9	158·7	110·7
October	115·8	55·3	148·8	85·5	158·5	110·6
November	110·2	49·2	123·0	63·7	113·1	90·2
December	95·2	41·9	95·9	51·5	79·8	72·3
Average Annual Admission-rate	1239·9	572·0	1305·2	751·2	1151·2	1000·5
3.—Composition of the Average Annual Admission-rate.						
Cholera	19·5	3·2	4·3	3·0	2·2	8·1
Contagious Fevers	.....	6·7	.....	.....	24·3	5·8
Other Fevers	478·7	213·4	554·5	300·2	665·4	436·9
Apoplexy	·6	·7	·7	2·2	1·6	1·3
Dysentery and Diarrhœa	331·7	113·1	203·2	134·7	116·4	193·7
Hepatitis	1·6	·8	·9	·7	·7	1·0
Spleen Disease	14·3	2·3	5·5	4·4	8·2	8·0
Respiratory Diseases	30·3	19·4	48·9	29·3	52·4	37·4
Phthisis Pulmonalis	7·6	5·4	1·1	2·4	1·9	4·2
Dropsy	6·9	·8	1·0	·7	1·3	2·8
Atrophy and Anæmia	22·1	11·9	12·8	9·8	7·4	13·6
Scurvy	6·9	·5	6·9	1·2	2·5	3·2
Rheumatism	31·1	10·6	37·8	11·2	14·8	19·6
Eye Diseases	10·8	12·8	18·9	12·1	15·5	13·9
Abscess and Ulcer	69·3	63·0	231·9	136·5	160·4	101·4
Wounds and Accidents	42·1	27·4	45·9	26·3	30·2	39·6
All other Causes	158·3	80·0	127·9	76·5	97·0	110·9
Average Annual Admission-rate	1239·9	572·0	1305·2	751·2	1151·2	1000·5
4.—Composition of the Average Annual Death-rate.						
Cholera	8·02	·96	2·96	1·47	1·07	3·42
Contagious Fevers	.....	1·36	.....	.....	2·06	·78
Other Fevers	3·53	1·47	3·50	3·19	6·14	3·74
Apoplexy	·44	·48	·36	·66	·68	·50
Dysentery and Diarrhœa	22·34	8·09	17·22	10·63	7·79	15·58
Hepatitis	·24	·16	·36	·12	·12	·17
Spleen Disease	·67	·15	·30	·37	·19	·39
Respiratory Diseases	4·20	2·01	3·91	4·75	7·19	4·81
Heart Diseases	·40	·18	·41	·20	·21	·27
Phthisis Pulmonalis	3·81	2·28	·77	1·71	·88	2·19
Dropsy	1·02	·25	·62	·33	·29	·74
Atrophy and Anæmia	3·02	1·68	3·64	2·25	·83	2·29
All other Causes	3·37	2·64	4·74	3·20	2·83	3·19
Violent Deaths	·65	·40	·59	·51	·69	·59
Average Annual Death-rate	52·31	22·11	38·88	35·41	32·27	38·63

SUB-DIVISIONS OF THE ADMINISTRATION OF BENGAL PROPER—
I. NORTHERN AND EASTERN BENGAL.

XV.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the JAIL POPULATION in NORTHERN and EASTERN BENGAL during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

[Table No. LV shows the Mortality of individual Jails grouped in this and the three following Statements.]

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	70,702	2,580	36·4	337	5·04	13	2	33	2	145	1	9	28	1	38	37	1	23	6	18
February	71,982	2,422	33·6	264	3·67	6	...	16	5	93	1	8	26	1	26	22	...	19	3	28
March	71,878	2,495	34·7	287	3·99	56	...	35	1	83	1	5	34	3	24	15	1	20	4	8
April	72,277	2,675	37·0	377	5·22	107	3	38	4	98	...	10	28	2	39	11	...	15	5	17
May	73,283	2,570	35·1	396	5·27	150	2	21	2	101	2	4	18	2	34	10	...	13	5	22
June	74,007	2,569	34·3	256	3·42	20	1	16	2	95	3	5	21	2	37	14	...	19	3	15
July	75,457	2,691	35·7	268	3·55	24	2	26	2	107	2	8	27	2	23	10	...	19	2	14
August	75,997	2,846	37·6	270	3·57	5	...	33	2	120	3	4	20	...	32	9	...	20	3	19
September	74,674	2,883	38·6	323	4·33	50	1	32	5	133	2	6	16	5	23	14	...	20	3	13
October	73,267	2,955	40·3	327	4·46	15	...	33	7	137	3	12	36	...	29	19	1	12	4	19
November	73,242	3,106	42·4	436	5·95	52	...	54	3	172	1	13	32	4	33	21	...	20	6	27
December	72,813	2,881	39·6	434	5·96	52	1	33	1	192	3	16	41	3	26	13	1	20	6	26
						550	12	370	36	1476	22	100	350	25	359	185	4	220	50	236
						Died per 1,000 of the Average Strength.														
For the ten years ...	73,368	2,723	37·1	3,985	54·31	7·50	·17	5·04	·49	20·12	·30	1·36	4·77	·34	4·89	2·52	·05	2·29	·68	3·08

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	1	...	16	93	97	107	17	4	1	...	336	4·6	...
Cholera ...	57	17	149	239	282	40	70	29	137	32	123	98	1,363	17·2	43·55
Smallpox ...	3	1	7	11	22	4	1	...	2	3	1	9	64	·9	18·75
Enteric Fever (1872—76) ...	...	1	1	2	...	1	2	1	1	1	2	1	13	·2	1·01
Fever, Intermittent ...	2,176	1,923	2,239	2,326	2,172	2,245	2,207	3,556	3,353	4,125	4,136	3,110	34,268	467·1	
Fevers, Remittent and Continued	136	128	158	180	169	201	258	267	284	246	285	197	2,519	34·3	
Apoplexy	1	5	2	6	2	3	2	2	6	7	5	1	42	·6	85·70
Dysentery	673	558	749	974	937	897	1,104	1,250	1,140	1,073	1,094	975	11,424	155·7	7·36
Diarrhœa	428	450	1,002	1,095	792	693	779	843	765	698	583	556	8,624	117·5	
Hepatitis	14	15	10	7	17	8	12	11	13	7	11	16	141	1·9	15·60
Spleen Disease	149	113	119	119	120	118	160	134	108	139	155	141	1,575	21·5	6·35
Respiratory Diseases ...	308	292	263	244	257	215	214	227	229	278	270	341	3,138	42·8	11·15
Phthisis Pulmonalis ...	70	49	68	68	67	67	60	46	46	60	65	66	732	10·0	49·04
Dropsy	82	58	65	58	76	79	75	65	80	74	68	103	883	12·0	20·95
Atrophy and Anæmia ...	67	72	94	96	105	90	106	109	85	85	72	97	1,018	14·7	20·41
Scurvy	10	21	13	4	9	13	9	16	19	9	19	15	157	2·1	2·55
Rheumatism	216	188	207	219	230	228	209	187	159	213	223	193	2,483	33·8	
Venereal Diseases ...	116	135	153	137	138	165	161	148	131	91	116	103	1,594	21·7	
Eye Diseases	40	61	53	48	56	65	68	69	72	85	54	49	720	9·8	1·44
Abscess and Ulcer ...	380	409	430	424	413	461	434	382	409	330	257	276	4,605	62·8	
Wounds and Accidents ...	205	255	329	288	315	320	290	765	224	206	191	183	3,080	42·0	
All other Causes	902	832	825	768	755	661	649	623	608	588	536	676	8,423	114·8	
	6,003	5,593	6,957	7,342	6,941	6,667	7,676	8,337	7,809	8,294	8,247	7,206	87,162		
	Admitted per 1,000 of the Average Strength in each Month.														
	84·8	77·7	96·8	101·6	94·7	89·0	101·7	110·2	105·8	113·2	112·6	99·0	1188·0		

SUB-DIVISIONS OF THE ADMINISTRATION OF BENGAL PROPER—
II. ASSAM AND CACHAR.

XVI.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the JAIL POPULATION in ASSAM and CACHAR during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	12,694	537	42·6	39	3·09	1	1	3	...	16	...	...	7	1	1	3	...	5	...	1
February	12,707	492	38·7	37	2·12	...	...	2	1	13	...	...	5	...	1	2	...	...	...	3
March	12,806	503	39·3	25	1·95	2	...	1	...	12	1	...	4	...	2	...	...	1	1	1
April	12,780	569	44·5	53	4·15	18	...	5	...	16	...	...	5	3	...	...	...	5	...	1
May	12,715	658	51·7	63	4·95	28	...	...	...	25	...	...	4	...	...	3	...	4	1	...
June	12,813	683	53·3	56	4·37	14	...	2	1	29	...	...	3	...	...	1	...	7	3	5
July	12,774	739	56·4	76	5·95	25	...	5	...	21	...	...	6	...	3	3	...	7	1	3
August	12,536	707	56·4	61	4·87	1	...	7	2	22	...	...	8	...	1	2	...	6	2	2
September	12,546	687	54·8	80	6·38	6	...	9	2	38	...	2	4	3	1	2	...	8	2	3
October	12,327	629	51·0	69	5·60	9	...	6	2	33	...	1	3	4	3	...	...	6	...	3
November	12,286	590	48·0	52	4·23	5	...	6	...	26	...	...	1	1	6	3	...	3	...	2
December	12,257	538	43·9	48	3·92	2	...	4	1	25	...	...	5	2	2	3	...	1	1	2
						169	1	59	9	269	1	3	55	16	29	27	...	62	11	26
						Died per 1,000 of the Average Strength.														
For the ten years ...	12,596	609	48·3	619	51·32	8·65	·08	3·97	·71	21·36	·08	·24	4·37	1·27	1·59	2·14	...	4·13	·87	2·06

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	...	...	...	...	...	7	3	1	...	...	11	·9	...
Cholera	2	...	4	34	60	25	32	9	6	17	10	4	203	16·1	53·69
Smallpox	2	...	2	6	4	1	...	1	...	1	...	4	21	1·7	4·76
Enteric Fever (1872—76) ...	...	...	...	...	1	...	...	...	...	...	...	...	1	·1	
Fever, Intermittent ...	486	396	422	525	670	706	939	814	692	716	679	595	7,650	607·3	·63
Fevers, Remittent and Continued ...	8	13	14	25	33	30	39	40	39	39	16	4	300	23·8	
Apoplexy	...	2	...	...	1	...	2	2	2	2	...	1	12	·9	75·00
Dysentery	175	124	195	252	248	300	256	311	307	237	202	202	2,809	223·0	4·73
Diarrhœa	148	130	178	204	435	359	312	230	201	191	168	169	2,875	228·2	
Hepatitis	2	1	3	...	5	1	1	2	9	4	3	3	34	2·7	2·94
Spleen Disease	29	17	23	17	24	23	49	50	48	41	18	36	365	29·0	·82
Respiratory Diseases ...	62	63	64	52	65	69	61	59	66	57	63	68	749	59·5	7·34
Phthisis Pulmonalis ...	3	3	4	6	4	5	4	1	4	4	7	3	48	3·8	41·67
Dropsy	10	4	4	1	12	8	17	13	12	7	12	7	107	8·5	25·23
Atrophy and Anæmia ...	19	20	18	19	17	47	37	40	37	27	21	21	323	25·6	16·10
Scurvy	23	19	22	31	42	48	62	64	45	35	37	19	447*	35·5	...
Rheumatism	68	54	75	55	52	73	57	68	55	31	44	54	680	54·7	
Venereal Diseases	30	26	25	44	34	39	31	36	39	25	28	31	392	31·1	
Eye Diseases	17	13	22	17	23	14	25	39	30	31	19	9	239	20·6	
Abscess and Ulcer	135	112	111	117	126	136	179	132	123	124	93	112	1,500	119·1	·79
Wounds and Accidents ...	91	97	71	88	78	86	104	96	85	60	61	62	982	78·0	
All other Causes	232	205	203	251	305	277	271	260	245	225	209	198	2,931	232·7	
	1,542	1,249	1,510	1,834	2,239	2,308	2,476	2,273	2,108	1,879	1,633	1,597	22,708		
	Admitted per 1,000 of the Average Strength in each Month.														
	122·3	98·3	117·9	143·5	176·1	180·1	193·8	181·3	168·0	152·4	137·8	130·3	1802·8		

* Of this total, 419 cases were returned by the Jail at Sylhet.

SUB-DIVISIONS OF THE ADMINISTRATION OF BENGAL PROPER—III. SOUTH-WESTERN BENGAL AND CHOTA NAGPORE.

XVII.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the JAIL POPULATION in SOUTH-WESTERN BENGAL and CHOTA NAGPORE during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	39,078	1,126	28·4	95	2·39	3	2	7	1	43	...	2	11	2	5	4	...	9	...	6
February	39,291	1,169	29·8	108	2·75	1	3	8	2	48	...	1	8	1	7	4	...	13	1	11
March	39,035	1,223	31·4	114	2·93	21	3	9	3	31	2	...	13	...	5	5	...	10	2	7
April	38,712	1,213	31·3	125	3·23	40	...	12	2	29	1	...	12	2	4	5	1	8	2	7
May	39,118	1,144	29·2	104	2·66	7	2	10	...	37	3	...	15	...	6	2	1	13	3	5
June	39,047	1,142	29·8	124	3·13	22	...	8	1	46	1	1	10	...	15	1	...	6	5	8
July	39,826	1,374	31·5	208	5·22	167	1	7	...	59	...	...	7	...	8	1	...	9	2	7
August	39,455	1,481	37·5	191	4·84	35	...	8	1	106	1	1	8	...	5	5	...	10	1	10
September	39,488	1,376	34·8	148	3·75	5	...	12	1	72	5	...	16	...	11	4	...	14	2	6
October	39,023	1,289	33·0	139	3·56	1	...	17	1	73	2	2	9	1	10	3	...	8	3	9
November	38,856	1,237	31·8	120	3·09	1	1	12	...	54	...	...	15	...	5	1	...	16	1	14
December	38,284	1,081	28·2	96	2·51	1	...	12	...	32	1	1	12	...	10	3	...	13	1	10
						244	12	122	12	633	16	8	136	6	91	38	2	129	23	100
						Died per 1,000 of the Average Strength.														
1 or the ten years ...	39,193	1,238	31·6	1,572	40·11	6·23	·31	3·11	·31	16·15	·41	·20	3·47	·15	2·32	·97	·05	3·29	·59	2·55

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	...	10	20	2	56	17	5	110	2·8	...
Cholera	14	16	74	80	22	59	218	65	15	7	7	3	580	14·8	42·07
Smallpox	16	22	25	13	12	21	9	1	1	...	4	6	130	3·3	9·23
Enteric Fever (1872—76) ...	...	...	2	1	...	1	...	...	1	½	...	...	7	·2	...
Fever, Intermittent ...	1,069	1,028	1,250	1,368	1,048	1,075	1,075	1,931	1,778	2,027	1,695	1,141	17,085	435·9	·69
Fevers, Remittent and Continued	39	62	78	55	50	41	47	50	62	59	39	21	494	15·2	
Apoplexy	2	2	2	2	...	1	...	1	1	1	...	...	12	·3	100·00
Dysentery	238	241	244	277	291	383	598	509	382	266	236	218	3,883	99·1	8·54
Diarrhœa	163	198	325	378	308	410	696	370	248	188	170	128	3,532	90·1	
Hepatitis	6	4	5	6	4	5	7	5	11	4	7	4	68	1·7	23·33
Spleen Disease ...	11	22	13	18	22	15	28	17	20	18	13	28	225	5·8	3·55
Respiratory Diseases ...	139	124	146	117	161	137	95	128	91	116	117	152	1,514	38·6	8·98
Phthisis Pulmonalis ...	11	14	15	15	21	17	10	13	8	22	17	15	178	4·5	51·12
Dropsy	11	9	9	7	6	5	11	15	7	9	5	12	106	2·7	35·85
Atrophy and Anæmia ...	63	42	42	39	46	56	53	59	44	37	64	48	593	15·1	21·75
Scurvy	6	6	8	10	14	12	6	4	8	6	8	1	89	2·3	2·25
Rheumatism	98	100	106	86	83	81	107	87	95	70	93	85	1,091	27·8	
Venereal Diseases ...	87	82	83	87	81	72	69	68	66	63	58	59	875	22·3	
Eye Diseases	16	15	34	29	29	42	43	26	10	23	18	18	312	8·0	1·17
Abscess and Ulcer ...	198	200	230	175	190	188	230	195	182	175	151	160	2,283	58·2	
Wounds and Accidents ...	114	110	123	142	138	127	116	131	108	122	106	120	1,457	37·2	
All other Causes	541	485	592	576	510	413	343	331	322	295	288	383	5,039	128·6	
	2,853	2,791	3,406	3,481	3,036	3,161	4,721	4,626	3,471	3,557	3,113	2,567	39,763		
	Admitted per 1,000 of the Average Strength in each Month.														
	71·5	71·9	87·5	89·9	77·6	79·7	108·5	102·0	87·9	91·1	80·1	67·1	1014·5		

SUB-DIVISIONS OF THE ADMINISTRATION OF BENGAL PROPER—IV. BEHAR PROVINCES.

XVIII.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the JAIL POPULATION in the BEHAR PROVINCES during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.													
						Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	39,018	973	24·9	138	3·54	1	...	1	2	87	...	1	12	...	7	6	...	13	1	7
February	39,013	973	24·9	86	2·20	1	...	...	...	47	...	1	10	...	3	5	1	5	2	9
March	39,209	1,005	25·6	102	2·60	13	...	3	1	54	...	3	6	...	6	3	1	5	4	3
April	40,114	1,155	28·8	143	3·56	30	1	11	1	58	1	...	5	...	7	3	...	12	1	13
May	40,671	1,055	25·9	124	3·05	22	1	9	...	59	...	1	13	...	6	3	...	7	3	9
June	41,017	1,033	25·2	159	3·88	62	3	10	5	55	...	3	6	3	8	4	1	7	1	11
July	41,142	1,165	28·3	257	6·25	116	1	3	1	87	...	2	11	3	6	1	...	8	4	14
August	41,067	1,327	37·2	374	9·11	147	...	9	5	161	...	1	9	...	8	3	2	14	1	14
September	41,029	1,654	40·3	377	9·19	99	...	12	1	204	...	2	9	1	6	5	1	16	3	18
October	40,337	1,567	38·8	345	8·55	22	...	15	...	252	2	...	13	3	8	5	...	11	4	10
November	40,105	1,426	35·5	294	7·32	26	...	7	1	189	...	1	16	1	13	6	5	17	1	11
December	40,480	1,169	28·9	223	5·51	5	...	9	...	190	...	...	29	...	9	10	3	13	2	12
						524	6	91	17	1,384	3	15	130	11	87	54	14	128	27	131
						Died per 1,000 of the Average Strength.														
For the ten years ...	40,279	1,226	30·4	2,622	65·09	13·01	·15	2·26	·42	34·36	·07	·37	3·23	·27	2·16	1·34	·35	3·18	·67	3·25

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	3	5	43	88	81	99	355	321	180	38	70	12	1,295	32·1	40·46
Smallpox	1	3	9	21	18	11	1	1	...	...	...	...	65	1·6	9·23
Enteric Fever (1872—76) ...	...	...	1	1	...	1	...	1	1	...	...	...	5	·1	} ·91
Fever, Intermittent ...	394	498	669	735	623	723	989	1,236	1,282	1,224	914	459	9,746	242·9	
Fevers, Remittent and Continued	12	5	19	26	25	16	16	25	50	38	23	13	268	6·7	
Apoplexy	1	1	1	2	3	15	1	4	1	...	2	2	33	·8	51·51
Dysentery	352	219	498	547	437	420	705	1,324	1,041	822	607	455	7,517	186·6	} 10·86
Diarrhœa	188	178	442	524	462	498	685	750	595	358	330	240	5,220	129·6	
Hepatitis	3	3	1	7	2	5	5	3	3	4	3	1	40	1·0	7·50
Spleen Disease ...	10	12	9	16	22	14	18	18	6	9	11	11	156	3·9	9·61
Respiratory Diseases ...	98	118	86	87	92	70	75	76	109	115	98	120	1,144	28·4	11·36
Phthisis Pulmonalis ...	17	20	11	16	14	20	18	8	13	20	21	12	190	4·7	45·79
Dropsy	20	14	7	20	10	13	11	13	12	21	16	16	172	4·3	31·39
Atrophy and Anæmia ...	47	45	46	55	34	53	52	81	69	83	71	75	711	17·7	18·00
Scurvy	8	8	8	5	5	4	9	4	17	35	37	24	184	4·6	7·61
Rheumatism	56	67	68	69	75	85	73	84	91	102	112	84	1,005	24·9	} 19·4
Venereal Diseases	74	62	67	75	50	76	58	78	70	60	43	64	783	19·4	
Eye Diseases	23	27	37	35	45	42	48	56	50	47	28	25	483	12·0	} 1·81
Abscess and Ulcer	191	206	197	234	225	244	241	219	201	178	164	201	2,501	62·1	
Wounds and Accidents ...	125	131	170	147	139	135	150	127	119	132	98	107	1,500	38·7	
All other Causes	242	282	296	274	275	202	235	234	257	257	229	239	3,022	75·0	
	1,904	1,909	2,685	3,004	2,617	2,716	3,835	4,663	4,167	3,549	2,897	2,159	36,100		
	Admitted per 1,000 of the Average Strength in each Month.														
	48·8	48·9	69·3	74·9	64·3	67·2	95·2	115·5	101·6	88·0	72·1	53·4	896·2		

SUB-DIVISIONS OF THE ADMINISTRATION OF BENGAL PROPER—V. CENTRAL JAIL AT ALIPORE, 1867—76.

XIX.

TABLE showing the AGGREGATE of SICKNESS and MORTALITY among the PRISONERS of the ALIPORE JAIL during the TEN YEARS from 1867 to 1876, and the prevalence of the principal Diseases in each Month.

MONTHS.	Average Strength.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	24,471	1,395	57·9	116	4·74	3	...	...	2	...	56	...	...	15	1	13	3	...	6	1	16
February	24,063	1,231	51·2	103	4·28	14	...	...	2	2	47	...	...	18	2	11	1	...	2	...	4
March	23,976	1,206	50·3	134	5·59	37	...	1	3	...	49	...	...	10	1	20	...	...	5	1	7
April	23,749	1,221	51·4	98	4·13	22	...	...	2	1	36	...	...	12	...	15	...	...	3	...	7
May	23,752	1,150	48·4	82	3·45	8	...	2	5	1	32	...	...	7	...	15	1	...	2	2	7
June	24,028	1,160	48·3	77	3·20	10	...	...	4	1	30	...	...	9	1	11	...	...	3	...	8
July	24,074	1,410	58·6	69	2·87	6	...	...	4	1	30	...	1	7	...	8	2	...	2	1	7
August	24,130	1,459	60·5	87	3·61	3	...	1	6	...	37	...	...	8	4	10	1	...	6	1	10
September	24,456	1,425	58·3	77	3·15	3	...	...	3	1	32	2	...	6	1	6	...	...	6	1	16
October	24,991	1,447	57·9	99	3·96	3	...	1	6	...	55	...	...	6	2	15	1	...	6	1	3
November	24,791	1,550	62·9	152	6·13	7	...	...	4	1	78	1	...	13	3	14	...	...	8	4	19
December	24,432	1,547	62·1	150	6·14	4	...	...	2	...	78	1	3	22	1	17	3	...	10	...	9
						120	...	5	43	8	560	4	4	133	16	155	12	...	59	12	113
						Died per 1,000 of the Average Strength.															
For the ten years ...	24,243	1,341	55·3	1,244	51·31	4·95	...	·21	1·77	·33	23·10	·17	·17	5·48	·66	6·40	·49	...	2·43	·49	4·66

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	16	50	117	58	30	40	42	16	14	7	21	15	426	17·6	28·17
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever (1872—76) ...	...	1	...	...	2	...	...	3	...	1	...	...	7	·3	71·43
Fever, Intermittent ...	1,107	857	998	1,037	1,088	1,021	1,424	1,504	1,482	1,556	1,973	1,655	15,792	651·4	
Fevers, Remittent and Continued	68	48	64	31	41	30	59	56	25	26	20	20	488	20·1	·27
Apoplexy	...	2	...	1	1	1	1	...	1	...	1	...	8	·3	100·00
Dysentery	481	396	379	462	418	442	786	663	587	632	637	640	6,502	268·2	4·01
Diarrhœa	458	541	760	500	461	665	759	728	683	704	644	555	7,461	307·7	
Hepatitis	3	2	2	...	2	2	3	1	4	1	1	1	22	·9	18·18
Spleen Disease	31	36	20	45	24	15	36	16	33	41	40	36	373	15·4	1·07
Respiratory Diseases ...	92	86	95	68	60	46	65	73	72	85	100	96	938	38·7	14·18
Phthisis Pulmonalis ...	17	25	28	16	16	19	11	16	16	20	27	32	243	10·0	63·78
Dropsy	6	6	8	...	5	6	8	6	5	6	7	7	70	2·9	17·14
Atrophy and Anæmia ...	90	69	71	69	61	72	185	107	115	162	205	117	1,323	54·6	4·99
Scurvy	19	7	19	12	7	19	44	23	14	31	51	43	289	11·9	...
Rheumatism	47	41	58	46	62	62	52	38	43	48	59	67	623	25·7	
Venereal Diseases	6	10	19	21	22	20	19	17	17	7	13	7	178	7·3	
Eye Diseases	8	3	12	12	14	15	20	24	22	15	21	6	172	7·1	
Abscess and Ulcer	127	107	129	137	142	142	141	172	126	133	102	139	1,548	63·8	1·06
Wounds and Accidents ...	38	51	39	53	66	49	68	45	72	60	47	50	638	26·3	
All other Causes	386	491	550	510	539	998	516	433	386	372	334	319	6,334	259·2	
	3,000	2,819	3,368	3,078	3,064	3,164	4,239	3,991	3,717	3,897	4,303	3,796	42,435		
	Admitted per 1,000 of the Average Strength in each Month.														
	122·6	117·2	140·5	129·6	129·0	131·7	176·1	165·4	152·0	155·9	173·6	155·3	1750·4		

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PROPER, 1867—76.

XX.

COMPARATIVE STATEMENT showing the RATIOS of SICKNESS and MORTALITY among the JAIL POPULATION in the SUB-DIVISIONS of the AREA included under the ADMINISTRATION of BENGAL PROPER, on the AVERAGE of the TEN YEARS 1867—1876.

	Ratio per 1,000 of the Average Strength.					
	Eastern and Northern Bengal.	Assam and Cachar.	South-Western Bengal and Chota Nagpore.	Behar.	Alipore Central Jail.	Administration of Bengal Proper.
1.—Daily Sick-rate of each Month.						
January	36·4	42·6	28·4	24·9	52·9	35·1
February	33·6	38·7	29·8	24·9	54·2	33·6
March	34·7	39·3	31·4	25·8	50·3	34·6
April	37·0	44·5	31·3	28·8	54·4	36·5
May	35·1	51·1	29·2	25·9	48·4	34·7
June	34·3	53·3	28·8	25·2	48·3	34·1
July	35·7	56·4	34·5	28·3	58·6	38·2
August	37·6	56·4	37·5	37·2	69·5	41·7
September	38·6	54·8	34·8	40·3	58·3	41·9
October	40·3	51·0	33·0	38·8	57·9	41·8
November	42·4	48·0	31·8	35·5	62·9	42·0
December	39·6	43·9	28·2	28·9	62·1	38·4
Average Annual Sick-rate	37·1	48·3	31·6	30·4	55·3	37·7
2.—Admission-rate of each Month.						
January	84·8	122·3	71·5	48·8	122·6	85·0
February	77·7	98·3	71·0	48·8	117·2	79·6
March	96·8	117·9	87·5	68·3	140·5	99·7
April	101·6	143·5	89·9	74·9	129·6	103·3
May	94·7	176·1	77·6	64·3	123·0	97·1
June	89·0	180·1	79·7	66·2	131·7	95·5
July	101·7	193·8	108·5	93·2	176·1	119·5
August	110·2	181·3	102·0	113·5	167·4	123·4
September	105·8	168·0	87·9	101·6	152·0	114·2
October	113·2	152·4	91·1	88·0	155·9	115·8
November	112·6	137·8	80·1	72·1	173·6	110·2
December	99·0	130·3	67·1	53·4	155·3	95·2
Average Annual Admission-rate	1188·0	1802·8	1014·5	896·2	1750·4	1239·9
3.—Composition of the Average Annual Admission-rate.						
Cholera	17·2	16·1	14·8	32·1	17·6	19·5
Fevers	501·6	631·2	451·3	248·8	671·8	478·7
Apoplexy	·6	·9	·3	·8	·3	·6
Dysentery and Diarrhœa	273·2	451·2	189·2	316·2	575·9	331·7
Hepatitis	1·9	2·7	1·7	1·0	·9	1·6
Spleen Disease	21·5	29·0	5·8	3·9	15·4	14·3
Respiratory Diseases	42·8	59·5	38·6	28·4	38·7	39·3
Phthisis Pulmonalis	10·0	3·8	4·5	4·7	10·0	7·6
Dropsy	12·0	8·5	2·7	4·3	2·9	6·9
Atrophy and Anæmia	14·7	25·6	15·1	17·7	54·6	22·1
Scurvy	2·1	35·5	2·3	4·6	11·9	6·0
Rheumatism	33·8	54·7	27·8	24·9	25·7	31·1
Eye Diseases	9·8	20·6	8·0	12·0	7·1	10·8
Abscess and Ulcer	62·8	119·1	58·2	62·1	63·8	69·3
Wounds and Accidents	42·0	78·0	37·2	38·7	26·3	42·1
All other Causes	142·0	206·4	157·0	96·0	227·5	158·3
Average Annual Admission-rate	1188·0	1802·8	1014·5	896·2	1750·4	1239·9
4.—Composition of the Average Annual Death-rate.						
Cholera	7·59	8·65	6·23	13·01	4·95	8·02
Fevers	5·04	3·97	3·11	2·36	1·98	3·53
Apoplexy	·19	·71	·31	·42	·33	·44
Dysentery and Diarrhœa	20·12	21·35	16·15	34·36	23·10	22·34
Hepatitis	·30	·68	·41	·67	·17	·24
Spleen Disease	1·36	·24	·20	·37	·17	·67
Respiratory Diseases	4·77	4·37	3·47	3·23	5·48	4·20
Heart Diseases	·34	1·27	·15	·27	·66	·80
Phthisis Pulmonalis	4·90	1·59	2·32	2·16	6·49	3·81
Dropsy	2·52	2·14	·97	1·34	·49	1·62
Atrophy and Anæmia	2·99	4·13	3·29	3·18	2·43	3·02
All other Causes	3·39	2·14	2·91	3·75	4·66	3·37
Violent Deaths	·68	·87	·59	·67	·49	·65
Average Annual Death-rate	54·31	51·52	40·11	65·00	51·31	52·31

STATISTICS OF JAIL ADMINISTRATIONS—BENGAL PROPER, 1867—76.

XXI.

COMPOSITION of the DEATH-RATE in the different years in the PROVINCIAL SUB-DIVISIONS of the JAILS under the ADMINISTRATION of BENGAL PROPER, and in the ALIPORE CENTRAL JAIL.

JAILS.	Year.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.												
		A Cholera.	B All other Causes.	C All Causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.
Northern and Eastern Bengal.	1867	8·54	50·97	59·51	8·54	6·12	·57	18·51	1·00	1·57	7·49	·28	4·13	3·27	2·71	4·41	1·10
	1868	12·04	47·60	59·64	12·04	4·62	·42	21·42	·14	·98	3·08	·42	3·22	2·94	6·16	3·50	·70
	1869	8·46	42·46	50·92	8·46	5·60	·14	18·98	·14	·82	3·82	·54	3·41	2·32	4·09	2·46	·14
	1870	7·44	44·78	52·22	7·44	5·76	·42	21·06	·14	1·68	3·09	·14	3·65	1·54	3·23	3·51	·56
	1871	2·27	42·13	44·40	2·27	5·15	·76	18·03	·91	1·52	4·55	·76	3·18	·91	3·33	2·58	·45
	1872	6·58	49·09	55·67	6·58	3·98	·61	24·16	·46	·77	4·74	·31	3·83	2·75	1·38	3·98	1·22
	1873	3·11	37·69	40·71	3·11	3·11	·95	16·09	...	·95	4·33	·49	5·14	2·70	·95	2·30	·68
	1874	6·99	56·40	63·39	6·99	6·48	·38	24·01	...	1·27	5·97	·25	7·59	3·68	2·41	3·43	1·02
	1875	5·97	46·13	52·10	5·97	6·10	·51	18·80	·13	2·54	4·32	·13	3·18	3·30	3·43	3·18	·51
	1876	12·50	49·88	62·38	12·50	2·83	·24	20·16	·24	1·41	6·13	·24	10·38	1·65	2·36	3·65	·39
	1867—76	7·50	46·81	54·31	7·50	5·04	·49	20·12	·30	1·36	4·77	·34	4·90	2·32	2·99	3·30	·68
Assam.	1867	12·99	62·46	74·85	12·99	3·47	·70	36·78	·70	...	4·16	1·39	6·94	2·08	4·85	1·39	
	1868	2·23	40·92	43·15	2·23	3·72	·74	22·33	...	...	6·70	...	·74	1·49	3·72	·74	·74
	1869	22·95	42·85	65·80	22·95	5·37	·76	24·48	...	...	3·06	·76	2·30	3·06	2·30	·76	...
	1870	2·33	22·48	24·81	2·33	3·10	...	9·30	...	...	·78	...	...	2·33	3·86	2·33	·78
	1871	12·26	31·89	44·15	12·26	6·54	·82	13·08	...	...	3·27	...	1·64	·82	2·45	3·27	
	1872	5·91	36·28	42·19	5·91	2·53	...	16·04	...	·84	·84	1·69	...	5·06	5·91	·84	2·53
	1873	8·08	43·38	52·06	8·08	·99	...	14·36	...	...	9·87	8·08	...	2·69	·90	5·39	1·79
	1874	9·39	42·66	52·05	9·39	1·71	2·56	21·33	...	·85	8·53	...	...	·85	2·56	2·56	1·71
	1875	10·63	42·52	53·15	10·63	8·85	·89	18·60	...	...	4·43	1·77	1·77	·89	4·43		·89
	1876	·72	58·19	58·91	·72	3·59	·72	32·33	...	·72	2·87	...	1·44	2·15	9·34	4·31	·72
	1867—76	8·65	42·87	51·52	8·65	3·97	·71	21·36	·08	·24	4·37	1·27	1·59	2·14	4·13	2·14	·87
South-Western Bengal and Chota Nagpore.	1867	1·92	40·64	42·56	1·92	2·40	·49	20·02	·72	...	1·68	·24	·96	1·44	6·25	5·05	·49
	1868	2·24	25·77	28·01	2·24	2·52	·56	9·53	...	·28	3·36	...	·56	·84	3·92	3·36	·84
	1869	4·85	27·06	31·91	4·85	4·34	·26	10·72	·51	...	3·32	...	3·06	1·02	1·79	2·4	
	1870	20·71	22·54	43·25	20·71	1·31	...	6·55	1·05	·26	2·36	·53	1·31	1·57	4·19	2·62	·79
	1871	1·76	19·62	21·38	1·76	2·35	·29	4·69	·29	...	3·51	·29	3·51	·88	1·76	1·76	·29
	1872	1·35	44·27	45·62	1·35	4·05	·27	25·37	·27	·27	5·40	...	1·62	1·08	·81	4·32	·81
	1873	3·21	29·83	33·04	3·21	2·96	·49	14·55	...	·25	3·70	·25	1·72	·49	2·71	1·23	1·48
	1874	6·09	34·62	40·71	6·09	3·75	·23	18·03	·23	...	3·04	...	2·58	·47	2·81	2·58	·70
	1875	·47	43·84	43·91	·47	3·76	·47	22·78	·47	·94	4·66	·23	3·05	·94	4·23	1·88	·23
	1876	19·35	47·38	66·73	19·35	3·47	...	25·39	·59	...	3·97	...	4·71	·99	3·97	4·22	·25
	1867—76	6·23	33·88	40·11	6·23	3·11	·31	16·15	·41	·20	3·47	·15	2·32	·97	3·29	2·91	·59
Behar.	1867	21·09	58·17	79·17	21·09	2·83	·29	43·98	·29	...	2·27	·29	...	1·42	3·12	2·83	·85
	1868	4·07	44·17	48·24	4·07	2·51	...	24·44	...	...	2·82	·31	1·88	·94	7·83	3·13	·31
	1869	18·90	56·16	75·06	18·90	3·33	·83	31·14	·28	·55	4·73	·28	3·06	1·11	4·17	5·28	1·39
	1870	8·49	33·95	42·44	8·49	1·82	·30	19·10	...	·30	3·33	...	2·43	·61	1·52	3·33	1·21
	1871	1·99	43·80	45·98	1·99	·57	·57	30·94	...	·57	1·99	...	1·99	1·13	2·83	2·55	·85
	1872	14·84	57·03	71·87	14·84	4·64	·23	35·71	...	·23	4·17	·23	2·09	1·16	3·01	4·17	1·39
	1873	20·51	67·22	87·73	20·51	2·18	·22	49·32	...	·22	4·15	·44	1·95	·87	3·03	3·71	·22
	1874	10·30	60·58	70·88	10·30	2·06	·41	43·89	...	·62	2·47	·41	2·89	2·06	1·86	3·50	·41
	1875	8·13	47·44	55·57	8·13	1·97	·66	32·07	...	1·10	2·42	·22	·66	1·10	1·97	5·05	·22
	1876	18·37	45·20	63·57	18·37	·83	·62	26·42	·21	...	3·71	·41	4·13	2·47	2·68	3·51	·21
	1867—76	13·01	52·08	65·09	13·01	2·26	·42	34·36	·07	·37	3·23	·27	2·16	1·34	3·18	3·75	·67
Alipore Central Jail.	1867	8·49	53·48	61·97	8·49	1·27	·85	25·89	·85	...	8·06	...	7·22	·85	2·55	5·52	·42
	1868	4·90	77·21	82·01	4·90	·41	·82	46·51	...	...	5·71	·82	7·75	2·45	5·71	6·93	
	1869	13·47	53·88	67·35	13·47	1·63	·82	22·44	...	...	5·31	·82	11·42	...	5·31	5·31	·82
	1870	5·37	44·17	49·54	5·37	1·19	...	12·34	·40	...	7·16	·80	3·18	...	5·17	13·13	·80
	1871	5·79	49·84	55·63	5·79	1·78	...	22·25	...	...	7·12	·89	10·24	·89	1·33	5·34	
	1872	1·67	31·62	33·29	1·67	1·67	...	19·97	...	...	2·08	·83	2·08	...	1·67	2·91	·41
	1873	3·68	26·60	30·28	3·68	2·86	·82	12·69	·41	·41	2·45	·82	4·50	...	...	·82	·82
	1874	2·35	34·11	36·46	2·35	3·14	...	19·21	...	...	3·53	·78	5·10	...	·39	1·57	·39
	1875	3·61	56·49	60·10	3·61	3·21	...	32·86	...	1·20	7·21	·80	7·61	·80	·40	2·00	·80
	1876	...	36·45	36·45	...	2·57	...	16·72	...	...	6·43	...	5·15	·43	1·72	3·00	·43
	1867—76	4·95	46·36	51·31	4·95	1·98	·33	23·10	·17	·17	5·48	·66	6·49	·49	2·43	4·05	·49

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXII.

AGGREGATE of SICKNESS and MORTALITY in the PRESIDENCY JAIL during the SIX YEARS from 1871 to 1876.

[Previous to 1871, the statistics of this Jail were not incorporated in the General Return, and the figures are therefore given for the last six years only.]

MONTHS.	Aggregate of the Average Strength of each Month 1871-76.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	5,677	235	41·4	16	2·82	...	...	2	...	7	...	...	4	...	...	...	...	...	1	2
February	5,746	198	34·5	15	2·61	1	...	1	...	6	...	...	2	1	4	...	...	...	...	...
March	5,670	216	38·1	13	2·29	5	...	...	...	6	...	...	...	...	...	...	...	...	1	1
April	5,629	226	40·1	10	1·78	1	...	1	...	3	...	...	...	...	...	...	...	...	1	2
May	5,664	203	35·8	13	2·29	1	...	...	2	3	...	...	...	...	...	...	...	...	...	...
June	5,693	172	30·2	8	1·41	...	...	...	...	...	...	...	...	1	...	...	...	2	2	...
July	5,695	243	42·7	16	2·81	9	...	...	...	1	...	...	...	...	...	...	...	...	...	1
August	5,626	253	45·0	9	1·60	1	...	1	1	1	...	...	3	...	...	...	...	...	...	...
September	5,780	270	46·7	9	1·56	...	1	2	...	2	...	...	2	...	...	...	...	...	...	2
October	5,902	302	51·2	12	2·03	2	...	1	1	2	...	...	2	1	...	...	...	...	...	1
November	5,924	285	47·8	13	2·19	...	...	1	...	6	...	...	3	...	...	...	...	...	...	...
December	5,491	245	44·6	15	2·73	...	...	...	...	6	...	...	...	1	5	...	...	1	...	2
						20	1	9	4	43	...	...	17	4	22	...	...	3	5	11
						Died per 1,000 of the Average Strength.														
For the six years ...	5,708	237	41·5	149	26·10	3·50	·17	1·58	·70	7·53	...	...	2·98	·70	5·61	...	...	·32	·88	1·93

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the six years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	1	13	1	2	2	14	...	1	4	...	1	39	6·8	51·28
Smallpox ...	...	...	...	...	...	1	...	...	1	...	1	...	3	·5	33·33
Enteric Fever (1872—76) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Fever, Intermittent ...	329	238	313	311	328	218	398	373	396	595	529	390	4,339	760·2	
Fevers, Remittent and Continued	3	4	22	18	20	15	27	59	92	100	55	19	434	76·0	·19
Apoplexy	1	...	...	...	2	1	...	1	...	1	...	...	6	1·1	66·67
Dysentery	122	118	114	116	90	77	107	103	161	149	153	136	1,597	284·9	
Diarrhœa	224	276	474	412	262	258	327	234	221	342	225	267	3,402	606·5	·87
Hepatitis	...	...	...	...	1	1	...	...	1	...	...	...	3	·5	
Spleen Disease	8	8	1	3	13	3	3	8	21	8	9	7	92	16·1	
Respiratory Diseases ...	21	15	16	10	13	11	18	12	15	29	24	16	200	35·0	
Phthisis Pulmonalis ...	6	4	10	7	9	7	5	6	5	10	9	11	89	15·6	8·50
Dropsy	2	1	...	1	...	...	...	...	...	2	...	...	6	1·1	33·96
Atrophy and Anæmia ...	10	11	8	12	9	8	100	39	45	23	15	20	300	52·6	
Scurvy	...	...	...	...	...	...	...	...	...	...	2	...	2	·4	1·00
Rheumatism	16	9	15	12	9	15	21	30	8	17	10	15	177	31·0	
Venereal Diseases	22	17	28	35	28	30	25	21	21	22	33	35	320	56·1	
Eye Diseases	10	6	5	16	13	13	19	15	20	21	10	13	161	28·2	
Abscess and Ulcer	82	82	90	129	109	109	119	95	71	70	77	78	1,101	192·9	·56
Wounds and Accidents ...	16	29	34	49	45	51	86	47	65	46	43	47	518	90·7	
All other Causes	198	181	102	111	103	84	82	94	103	73	81	113	1,325	232·1	
	1,070	1,000	1,265	1,233	1,056	904	1,221	1,197	1,259	1,530	1,267	1,118	14,984		
	Admitted per 1,000 of the Average Strength in each Month.														
	188·5	174·0	223·1	219·0	186·4	158·8	214·4	212·8	216·3	274·7	213·7	203·6	2467·4		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXIII.

AGGREGATE of SICKNESS and MORTALITY in the JAIL at DACCA during the TEN YEARS from 1867 to 1876.

[A Healthy Jail of Eastern Bengal.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever (1872 to 1876).	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	5,301	151	28·5	16	3·02	...	...	...	...	...	6	...	...	3	...	...	1	...	1	...	...
February	5,484	179	32·6	14	2·55	1	...	...	...	...	1	...	1	4	...	...	1	...	...	...	4
March	5,474	175	32·0	13	2·37	7	...	...	1	...	1	...	...	2	...	...	...	...	1	...	1
April	5,618	189	33·6	18	3·20	2	2	...	...	...	2	...	1	5	...	5	...	...	...	...	1
May	5,820	175	30·0	12	2·06	1	...	...	1	...	3	2	...	1	...	3	...	...	...	...	1
June	6,011	176	29·3	17	2·83	2	...	...	2	...	3	...	1	3	...	2	...	...	1	...	3
July	6,036	188	31·1	15	2·48	2	...	...	1	...	2	...	1	4	...	1	...	...	1	...	3
August	5,910	177	29·9	8	1·35	1	...	...	1	...	1	1	...	1	...	1	...	...	...	1	1
September	5,834	169	29·0	9	1·54	...	...	...	3	...	1	...	2	2	...	1	...	...	...	...	...
October	5,664	163	28·4	13	2·30	1	...	...	...	...	2	...	...	4	...	4	...	...	...	...	2
November	5,332	176	31·8	18	3·25	5	...	1	1	2	1	...	...	4	...	1	...	...	1	...	3
December	5,960	174	30·7	18	3·18	7	...	...	2	1	...	...	1	3	...	3	...	...	...	...	1
						29	4	1	12	3	22	3	9	36	...	25	2	...	5	1	19
						Died per 1,000 of the Average Strength.															
For the ten years ...	5,696	174	30·5	171	30·02	5·09	·70	·17	2·11	·53	3·86	·53	1·58	6·32	...	4·39	·35	...	·88	·17	3·34

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Dengue	...	...	...	...	...	13	25	1	4	1	...	...	44	7·7	...
Cholera	1	3	15	2	4	3	3	3	1	4	20	10	69	12·1	52·03
Small-pox ...	2	...	3	5	1	...	...	...	...	...	...	4	15	2·6	26·67
Enteric Fever (1872—76) ...	...	...	...	...	...	...	1	...	1	1	...	...	3	·5	33·33
Fever, Intermittent ...	79	71	77	111	80	126	113	108	104	123	161	138	1,291	226·7	·75
Fevers, Remittent and Continued	22	24	15	19	18	30	40	39	20	27	28	18	300	52·7	
Apoplexy	...	...	...	...	...	...	...	...	...	...	2	1	3	·5	100·00
Dysentery	38	25	44	40	53	36	67	43	44	41	44	49	533	93·6	2·43
Diarrhœa	26	17	44	36	32	35	33	22	27	36	37	40	375	65·8	
Hepatitis	2	1	...	1	1	1	1	...	...	1	2	1	11	1·9	27·27
Spleen Disease ...	7	6	3	14	4	2	8	10	5	7	8	9	83	14·6	10·84
Respiratory Diseases ...	25	39	27	22	23	27	21	23	27	34	29	42	339	59·5	10·03
Phthisis Pulmonalis ...	3	4	9	9	3	1	3	3	4	5	4	3	51	9·0	49·02
Dropsy	2	...	...	...	1	...	...	...	...	...	...	...	3	·5	66·67
Atrophy and Anæmia ...	1	3	...	3	4	5	3	4	3	3	1	3	33	5·8	15·15
Scurvy	1	17	2	...	...	3	...	2	...	1	2	...	28	4·9	—
Rheumatism	9	8	14	12	16	13	18	13	11	12	8	9	143	25·1	
Venereal Diseases	11	20	17	18	22	15	30	20	12	13	18	9	205	36·0	
Eye Diseases	1	4	6	2	3	5	3	4	3	4	1	2	38	6·7	1·19
Abscess and Ulcer	24	33	33	29	34	38	32	40	25	27	22	18	355	62·3	
Wounds and Accidents ...	23	22	21	26	32	41	36	22	17	22	20	19	301	52·9	
All other Causes	78	64	64	69	42	47	48	56	43	51	42	47	642	112·7	
	355	361	394	418	373	441	485	413	351	413	439	422	4,865		
	Admitted per 1,000 of the Average Strength in each Month.														
	67·0	65·8	72·0	74·4	64·0	73·4	80·4	69·9	60·2	72·9	79·4	74·6	854·1		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXIV.

AGGREGATE of the SICKNESS and MORTALITY in the JAIL at BACKERGUNGE during the TEN YEARS from 1867 to 1876.

[An Unhealthy Jail of Eastern Bengal.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	4,577	178	38·9	35	7·65	1	...	...	4	...	18	...	...	6	...	2	2	...	...	1	1
February	4,619	169	36·6	34	7·36	...	...	...	1	...	32	...	1	1	...	2	2	...	2	...	3
March	4,656	178	38·2	32	6·87	19	...	...	2	...	9	...	...	1	...	...	1	...	...	...	...
April	4,752	203	42·7	37	7·79	14	...	...	3	2	14	...	...	1	...	1	...	...	...	...	2
May	4,805	198	41·2	25	5·20	11	...	...	1	...	10	...	...	...	...	1	1	...	...	1	...
June	4,941	191	38·7	29	5·87	2	...	...	1	1	24	...	...	...	...	...	...	...	...	...	1
July	4,971	199	40·0	30	6·03	...	...	...	4	1	23	...	...	1	...	...	...	...	1	...	...
August	5,069	199	39·7	34	6·79	...	...	...	2	1	27	...	...	2	...	1	...	...	1	...	...
September	4,973	221	44·4	31	6·23	...	...	...	2	...	23	1	...	2	2	...	1	...	...	...	1
October	4,728	237	50·1	46	9·73	2	...	...	9	...	26	...	1	5	...	...	...	...	...	...	1
November	4,753	255	53·6	71	14·94	21	...	...	11	...	30	...	2	3	...	3	...	...	...	...	1
December	4,909	244	52·3	76	16·28	21	...	...	8	...	37	1	1	2	1	1	1	1	...	...	2
						91	...	...	48	5	263	2	5	24	3	13	8	1	4	2	11
						Died per 1,000 of the Average Strength.															
For the ten years ...	4,788	206	1,43·0	480	100·25	19·01	...	...	10·02	1·04	54·93	·42	1·04	5·01	·63	2·72	1·67	·21	·83	·42	2·30

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	2	1	37	26	29	4	...	...	3	6	43	36	187	39·0	48·06
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	...	...	2	...	1	1	1	...	...	...	...	5	1·0	100·00
Fever, Intermittent ...	121	95	155	121	136	126	186	219	154	200	172	114	1,799	375·7	2·33
Fevers, Remittent and Continued	8	2	1	5	6	7	8	1	5	17	16	10	86	18·0	
Apoplexy	...	...	...	2	...	1	1	1	...	...	...	...	5	1·0	100·00
Dysentery	68	57	76	87	128	107	140	127	125	133	123	93	1,264	264·0	11·83
Diarrhœa	50	47	78	155	138	65	61	68	71	66	78	83	960	200·5	
Hepatitis	1	1	...	1	1	...	3	1	...	1	1	3	13	2·7	15·38
Spleen Disease	5	3	1	3	1	5	6	3	4	11	9	6	57	11·9	8·77
Respiratory Diseases ...	15	10	15	7	13	10	14	16	13	10	15	18	156	32·6	15·38
Phthisis Pulmonalis ...	2	2	2	1	1	...	...	1	...	2	3	1	15	3·1	86·67
Dropsy	3	...	2	...	...	2	...	...	...	...	...	4	11	2·3	72·73
Atrophy and Anæmia ...	1	4	1	2	3	2	...	5	5	2	3	4	32	6·7	12·50
Scurvy	...	...	1	...	2	...	1	4	2	...	3	9	22	6·0	3·45
Rheumatism	6	8	11	5	9	11	7	11	13	21	19	8	129	26·9	
Venereal Diseases ...	7	3	9	4	9	10	9	7	4	7	2	3	74	15·5	
Eye Diseases	4	6	1	5	...	2	10	15	15	16	5	6	85	17·8	1·67
Abscess and Ulcer ...	10	10	13	9	12	16	13	10	11	10	8	10	132	27·6	
Wounds and Accidents ...	21	16	12	23	24	24	13	20	16	7	3	11	190	39·7	
All other Causes	15	37	37	37	32	33	36	31	30	19	15	25	347	72·5	
	339	302	452	493	544	423	510	540	478	528	518	444	5,571		
	Admitted per 1,000 of the Average Strength in each Month.														
	74·1	65·4	97·1	103·7	113·2	85·6	102·6	107·8	96·1	111·7	105·0	95·1	1163·5		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXV.

AGGREGATE of the SICKNESS and MORTALITY in the JAIL at RAJSHAHAI during the TEN YEARS from 1867 to 1876.

[A Healthy Jail of Northern Bengal.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	6,283	156	25·0	21	3·36	...	...	...	2	...	8	...	2	1	...	2	1	...	4	1	...
February	6,285	135	21·5	18	2·86	...	...	...	...	1	4	...	1	2	...	...	2	...	6	...	2
March	6,402	142	22·2	24	3·75	3	...	...	2	...	4	...	2	4	...	2	...	1	4	...	2
April	6,639	161	24·3	60	9·04	43	...	...	3	1	5	...	1	2	1	...	2	...	1	...	1
May	6,698	144	21·5	27	4·03	13	...	...	4	1	3	...	...	1	1	1	...	...	3	...	...
June	6,772	151	22·3	23	3·40	3	...	...	2	...	4	...	...	5	...	4	2	...	2	...	1
July	6,887	167	24·2	11	1·60	...	...	...	2	...	2	...	...	2	...	1	1	...	3	...	...
August	7,007	201	28·7	22	3·14	...	...	1	3	1	8	...	...	4	...	3	2	...	...	...	...
September	6,993	164	23·5	16	2·29	...	...	...	1	2	10	...	...	1	...	...	...	...	1	...	1
October	6,810	175	25·7	29	4·26	2	...	...	1	...	11	...	1	4	...	3	1	...	2	1	3
November	6,810	197	28·9	40	5·87	6	...	...	3	...	18	...	...	...	2	1	3	...	6	...	1
December	6,709	179	26·7	29	4·32	1	...	...	3	...	17	...	2	...	...	...	...	...	3	1	2
						71	...	1	26	6	94	...	9	26	4	17	14	1	35	3	13
						Died per 1,000 of the Average Strength.															
For the ten years ...	6,688	164	24·5	320	47·85	10·62	...	·15	3·89	·90	14·05	...	1·35	3·89	·60	2·54	2·09	·15	5·23	·45	1·94

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	10	91	21	6	...	1	...	2	9	3	143	21·4	49·65
Smallpox	...	...	...	...	1	...	...	...	...	...	...	...	1	·1	...
Enteric Fever ...	...	1	...	...	...	...	1	...	...	...	...	...	2	·3	50·00
Fever, Intermittent ...	97	77	113	138	115	110	160	186	125	165	193	133	1,612	241·0	
Fevers, Remittent and Continued ...	3	3	3	5	3	2	6	6	3	9	6	4	53	7·9	1·56
Apoplexy	...	1	...	2	1	1	...	1	2	...	...	...	8	1·2	75·00
Dysentery	47	33	47	63	45	45	68	105	67	65	81	64	730	109·2	7·84
Diarrhœa	21	33	82	41	19	17	27	51	45	33	72	28	469	70·1	
Hepatitis	1	1	...	...	1	1	...	...	...	...	...	...	4	·6	...
Spleen Disease ...	7	6	5	3	8	6	10	11	6	3	10	6	81	12·1	11·11
Respiratory Diseases ...	7	7	7	16	7	9	6	7	13	14	11	12	116	17·3	22·41
Phthisis Pulmonalis ...	1	1	1	3	4	5	2	2	1	2	6	4	32	4·8	53·12
Dropsy	8	4	3	5	6	7	1	2	5	4	2	1	48	7·2	29·17
Atrophy and Anæmia ...	10	13	15	16	16	16	17	17	14	13	14	16	177	26·5	19·77
Scurvy	...	...	1	...	1	...	1	1	...	...	...	...	4	·6	25·00
Rheumatism	5	...	4	3	3	3	3	1	3	6	6	2	39	5·8	
Venereal Diseases ...	2	2	2	...	1	5	2	2	2	1	4	1	24	3·6	
Eye Diseases	3	...	5	5	6	1	5	5	8	2	8	4	52	7·8	3·34
Abscess and Ulcer	17	22	14	15	13	7	21	13	9	13	7	12	163	24·4	
Wounds and Accidents ...	10	5	9	7	6	10	5	9	6	7	9	6	89	13·3	
All other Causes	31	20	14	11	19	15	9	19	13	23	19	39	232	34·7	
	270	229	335	424	296	266	344	439	322	362	457	335	4,079		
	Admitted per 1,000 of the Average Strength in each Month.														
	43·2	36·4	52·3	63·9	44·2	39·3	50·0	62·7	46·0	53·2	67·1	49·9	609·9		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXVI.

AGGREGATE of the SICKNESS and MORTALITY of the JAIL at RUNGPORE during the TEN YEARS from 1867 to 1876.

[An Unhealthy Jail of Northern Bengal.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	3,876	186	48·0	54	13·93	...	...	...	2	...	28	...	1	1	2	8	10	...	...	1	1
February	3,008	168	43·0	34	8·70	...	...	...	1	...	11	1	1	2	...	6	3	...	7	...	2
March	3,879	178	45·9	37	9·54	1	...	...	4	...	16	...	...	2	...	5	5	...	4	1	...
April	3,819	180	47·1	55	14·40	3	...	...	6	...	20	...	1	2	...	13	4	...	2	1	3
May	3,843	214	55·7	56	14·57	19	...	...	...	...	15	...	2	...	...	13	3	...	2	1	1
June	3,835	213	55·5	34	8·87	...	...	...	...	...	12	...	...	2	1	9	4	...	...	...	3
July	3,906	204	52·2	32	8·19	...	...	...	...	...	15	...	1	3	...	6	1	...	4	...	2
August	3,974	210	52·8	34	8·56	...	...	...	2	...	14	...	...	...	...	8	2	...	5	...	3
September	3,857	205	53·2	26	6·74	...	...	...	1	...	14	...	...	2	...	2	4	...	3	1	1
October	3,852	209	54·3	41	10·64	...	...	...	2	2	20	...	3	2	...	4	6	...	...	...	2
November	3,863	203	52·5	46	11·91	...	...	...	4	...	20	...	2	2	...	7	6	...	...	2	2
December	4,015	193	48·1	48	11·95	...	...	...	1	...	23	1	3	3	1	6	8	...	3	...	...
						23	...	...	23	2	206	2	14	20	3	87	56	...	33	7	21
						Died per 1,000 of the Average Strength.															
For the ten years ...	3,886	197	50·7	497	127·89	5·92	...	...	5·92	·51	53·01	·51	3·60	5·15	·77	22·39	14·41	...	8·49	1·80	5·41

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	1	...	3	4	54	...	1	1	...	1	...	...	65	16·7	35·38
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	117	113	105	78	81	86	105	185	173	189	173	170	1,575	405·3	1·32
Fevers, Remittent and Continued	18	17	21	17	14	7	8	3	17	12	17	14	165	42·5	
Apoplexy	...	...	...	...	...	...	...	...	...	2	...	...	2	·5	100·00
Dysentery	74	69	91	129	95	95	98	106	94	115	120	98	1,184	304·7	12·44
Diarrhœa	28	19	35	66	70	48	42	38	28	19	30	49	472	121·5	
Hepatitis	1	...	...	...	1	...	...	...	...	...	1	3	6	1·5	33·33
Spleen Disease	15	5	2	16	6	12	28	16	15	17	7	9	148	38·1	9·46
Respiratory Diseases ...	15	19	28	18	13	7	10	11	5	15	11	13	165	42·5	12·12
Phthisis Pulmonalis ...	19	3	19	21	14	12	14	9	2	12	7	10	133	34·2	65·41
Dropsy	37	23	39	23	35	40	28	32	25	28	28	47	385	99·1	14·55
Atrophy and Anæmia ...	7	9	10	11	24	11	15	11	9	7	4	8	126	32·4	26·19
Scurvy	...	...	...	...	...	1	...	...	...	...	...	...	1	·3	...
Rheumatism	7	5	6	5	6	5	4	3	5	4	4	5	58	14·9	
Venereal Diseases ...	7	4	3	3	2	4	5	9	4	4	5	5	55	14·1	
Eye Diseases	...	1	1	2	3	1	1	3	1	4	3	2	22	5·6	4·06
Abscess and Ulcer ...	17	29	30	17	18	21	30	27	29	24	22	21	282	72·6	
Wounds and Accidents ...	4	12	14	15	20	15	16	8	6	10	10	11	141	36·3	
All other Causes	33	21	20	16	11	17	14	22	14	16	14	8	206	53·0	
	409	349	418	441	467	382	419	484	427	476	456	472	5,191		
	Admitted per 1,000 of the Average Strength in each Month.														
	103·2	89·3	107·8	115·5	121·5	99·6	107·5	121·8	110·7	123·6	118·0	117·6	1335·8		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXVII.

AGGREGATE of the SICKNESS and MORTALITY in the JAIL at MONGHYR during the TEN YEARS from 1867 to 1876.

[A Healthy Jail of the Behar Provinces throughout the period ; formerly a very Unhealthy Jail.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	3,530	75	21·2	3	·85	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...
February	3,524	61	17·3	5	1·42	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...
March	3,510	60	17·1	8	2·28	...	...	...	...	...	4	...	1	...	...	1	...	...	2	...	...
April	3,423	55	16·1	7	2·05	1	...	...	2	...	2	...	...	...	...	...	...	...	2	...	...
May	3,523	55	15·6	3	·85	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1
June	3,592	56	15·6	5	1·39	1	...	...	...	...	1	...	...	...	...	1	...	...	1	...	1
July	3,536	67	18·9	15	4·24	8	...	...	...	...	4	...	1	1	...	...	...	...	...	...	1
August	3,540	81	22·9	13	3·67	...	...	...	...	1	7	...	...	...	...	3	1	...	1	...	...
September	3,563	84	23·6	30	8·42	14	...	...	3	...	8	...	...	...	...	...	1	...	...	...	4
October	3,472	75	21·6	15	4·32	...	...	...	3	...	9	...	...	2	...	...	...	...	1	...	...
November	3,467	64	18·5	8	2·31	...	...	...	...	...	4	...	...	...	...	...	...	...	3	...	1
December	3,517	63	17·9	11	3·13	...	...	...	...	...	10	...	...	...	...	...	...	...	1	...	...
						24	...	...	8	1	55	...	2	5	...	6	2	...	11	1	8
						Died per 1,000 of the Average Strength.															
For the ten years ...	3,516	66	18·8	123	34·98	0·82	...	...	2·28	·28	15·64	...	·57	1·42	...	1·71	·57	...	3·13	·28	2·28

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	1	3	3	2	25	2	22	1	...	...	59	16·8	40·68
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fevers, Intermittent ...	27	32	42	40	30	27	50	70	63	73	48	27	529	150·4	1·96
Fevers, Remittent and Continued	...	...	...	...	...	...	...	4	10	3	1	...	18	5·1	
Apoplexy	...	...	...	...	...	...	...	1	...	...	...	...	1	·3	100·00
Dysentery	9	5	6	14	12	12	26	43	33	26	25	19	230	65·4	9·39
Diarrhœa	22	12	22	22	24	23	43	56	46	28	32	26	356	101·2	
Hepatitis	...	...	...	1	...	1	...	...	...	...	...	...	2	·6	.....
Spleen Disease	1	3	2	3	5	2	3	3	1	1	1	2	27	7·7	7·41
Respiratory Diseases ...	9	12	10	6	8	9	8	8	6	16	8	13	113	32·1	4·42
Phthisis Pulmonalis ...	1	...	...	1	1	1	1	2	...	...	...	...	7	2·0	85·71
Dropsy	...	...	...	...	...	...	...	2	...	...	...	...	2	·6	100·00
Atrophy and Anæmia ...	3	1	2	2	4	1	3	1	1	5	5	3	31	8·8	35·48
Scurvy	...	...	...	...	...	1	...	1	...	...	...	...	2	·6	.....
Rheumatism	11	6	5	5	7	2	3	3	5	4	10	6	67	19·1	
Venereal Diseases ...	19	7	12	10	12	13	11	11	10	11	2	9	127	36·1	
Eye Diseases	4	3	3	7	4	3	6	4	3	4	2	3	46	13·1	1·37
Abscess and Ulcer ...	21	14	11	8	16	16	14	12	5	5	2	14	138	39·2	
Wounds and Accidents ...	6	8	8	10	5	4	6	8	9	5	7	10	86	24·5	
All other Causes ...	16	26	24	14	24	15	13	19	15	12	7	10	195	55·5	
	149	129	148	146	155	132	212	250	229	194	150	142	2,036		
	Admitted per 1,000 of the Average Strength in each Month.														
	42·2	36·6	42·2	42·7	44·0	36·7	60·0	70·6	64·3	55·9	43·3	40·4	579·1		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXVIII.

AGGREGATE of the SICKNESS and MORTALITY of the JAIL at MOZUFFERPORE during the TEN YEARS from 1867 to 1876.

[An Unhealthy Jail of the Behar Provinces.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	4,239	121	28·6	29	6·86	...	...	...	1	1	22	...	...	1	...	1	...	...	1	...	2
February	4,242	120	28·3	20	4·71	...	...	...	...	...	13	...	1	...	...	...	...	...	2	1	1
March	4,368	138	31·6	17	3·89	1	...	...	...	...	11	...	1	2	...	...	1	...	1	...	...
April	4,461	138	30·9	17	3·81	...	...	...	3	...	9	...	...	...	...	...	...	...	2	...	3
May	4,602	127	27·6	21	4·56	9	...	...	...	...	7	...	1	2	...	1	...	...	1	...	1
June	4,454	104	23·3	37	8·31	15	...	...	2	...	15	...	1	...	...	1	...	...	2	...	3
July	4,550	102	22·4	21	4·62	5	...	...	1	...	11	...	...	...	...	1	...	...	2	...	1
August	4,609	156	33·8	86	18·66	40	...	...	2	...	33	...	1	1	...	2	...	1	6	...	...
September	4,672	180	38·5	46	9·85	8	...	...	1	...	32	...	...	1	1	...	1	...	6	...	1
October	4,615	178	38·6	55	11·92	...	...	...	3	...	45	...	...	...	...	1	1	...	2	1	2
November	4,410	163	37·0	47	10·66	...	...	...	...	...	33	...	...	2	...	...	1	...	5	...	6
December	4,506	140	30·7	34	7·45	...	...	...	...	...	25	...	...	4	...	...	1	...	2	...	2
						78	...	...	11	1	251	...	5	15	1	7	5	1	31	2	22
						Died per 1,000 of the Average Strength.															
For the ten years ...	4,482	139	31·0	430	95·94	17·40	...	...	2·45	·22	56·00	...	1·12	3·35	·22	1·56	1·12	·22	6·92	·45	4·91

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	3	2	23	23	8	85	13	...	...	...	157	35·0	49·68
Smallpox	...	2	7	5	8	1	...	...	...	...	...	...	23	5·1	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent	39	52	106	90	61	75	80	108	122	112	75	40	971	216·7	1·08
Fevers, Remittent and Continued	6	...	3	3	1	...	...	11	2	8	6	3	43	9·6	
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	2	2	·4	50·00
Dysentery	71	35	54	68	58	38	84	134	164	154	131	99	1,081	241·2	15·63
Diarrhœa	31	29	40	66	56	56	43	70	63	29	15	27	525	117·1	
Hepatitis	...	...	...	...	...	...	...	1	...	...	2	...	3	·7	...
Spleen Disease	1	2	3	4	2	3	...	1	...	...	1	1	18	4·0	27·78
Respiratory Diseases	8	9	9	10	9	3	8	3	6	10	12	13	100	22·3	15·00
Phthisis Pulmonalis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dropsy	2	1	...	1	...	1	1	...	1	2	1	...	10	2·2	50·00
Atrophy and Anæmia ...	12	12	11	6	5	10	7	9	20	15	11	17	135	30·1	22·96
Scurvy	...	2	1	1	...	1	1	...	2	3	1	1	13	2·9	7·69
Rheumatism	18	13	13	9	7	12	7	14	25	22	23	16	179	40·0	
Venereal Diseases	11	14	15	14	6	8	10	16	15	8	13	12	142	31·7	
Eye Diseases	5	6	7	12	3	7	4	11	13	9	5	5	87	19·4	2·29
Abscess and Ulcer	13	29	25	15	9	16	15	17	25	22	32	32	240	53·6	
Wounds and Accidents ...	8	8	6	4	3	2	4	11	2	7	7	2	64	14·3	
All other Causes	23	27	40	48	35	31	31	26	35	28	31	27	382	85·2	
	248	241	345	367	286	287	303	517	568	429	366	278	4,175		
	Admitted per 1,000 of the Average Strength in each Month.														
	58·6	56·8	79·0	82·3	62·1	61·4	66·6	112·2	108·7	93·0	83·0	60·9	931·5		

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXIX.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at HAZARIBAGH during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.													
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	8,222	166	20·2	12	1·46	...	1	...	1	...	4	...	1	1	...	...	...	...	...	...	3
February	8,100	183	21·6	25	2·97	...	...	1	2	2	12	...	1	...	...	...	...	...	6	...	3
March	8,302	213	25·5	28	3·35	8	...	1	2	1	9	...	...	3	...	...	...	...	1	...	3
April	8,240	244	29·6	33	4·00	16	...	...	6	1	5	...	...	1	...	...	1	1	1	...	1
May	8,239	213	25·9	15	1·82	...	1	...	2	...	4	...	...	2	...	...	1	1	2	...	2
June	8,252	208	25·2	12	1·45	2	...	...	2	...	6	...	...	...	...	...	...	...	2	1	...
July	8,366	257	30·7	31	3·71	13	1	...	2	...	9	...	...	1	...	...	...	...	2	...	3
August	8,335	291	34·9	42	5·04	13	...	...	2	...	21	...	...	3	...	...	...	...	2	1	1
September	8,356	290	34·7	33	3·95	1	...	1	2	1	15	1	...	6	...	...	1	...	4	...	1
October	8,312	266	32·0	32	3·85	...	...	...	5	...	16	...	1	3	1	...	...	...	2	1	3
November	8,418	255	30·3	27	3·21	...	...	...	3	...	16	...	...	4	...	...	1	...	3	...	1
December	8,483	217	25·6	17	2·00	...	...	...	3	...	5	1	...	3	...	...	1	...	3	...	1
						53	3	3	32	5	122	2	3	27	1	...	4	2	26	3	21
						Died per 1,000 of the Average Strength.															
For the ten years ...	8,332	234	28·1	307	36·84	6·36	·36	·36	3·84	·60	14·64	·24	·36	3·24	·12	...	·48	·24	3·12	·36	2·52

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	1	26	28	...	5	27	27	1	1	...	...	116	13·9	45·69
Smallpox	1	...	1	3	5	18	9	1	...	...	...	...	38	4·6	7·89
Enteric Fever	...	...	1	...	...	...	...	...	1	...	...	...	2	·2	
Fever, Intermittent ...	154	184	241	363	186	204	354	375	427	523	339	203	3,403	419·2	
Fevers, Remittent and Continued	2	12	7	9	11	3	7	9	6	12	13	7	98	11·8	·97
Apoplexy	1	1	1	1	...	...	...	...	1	...	...	...	5	·6	100·00
Dysentery	28	38	32	21	25	44	95	77	46	44	45	39	534	64·1	11·04
Diarrhœa	25	39	61	68	41	45	82	38	65	53	34	20	571	68·5	
Hepatitis	1	...	...	...	...	...	...	...	1	...	1	1	4	·5	50·00
Spleen Disease	3	2	...	...	1	3	7	2	4	3	3	3	31	3·7	9·68
Respiratory Diseases ...	13	18	20	13	16	9	16	23	10	22	16	24	200	24·0	13·50
Phthisis Pulmonalis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dropsy	1	...	1	1	2	2	1	1	1	1	...	1	12	1·4	33·33
Atrophy and Anæmia ...	10	5	9	1	9	12	12	11	5	7	14	8	103	12·4	25·24
Scurry	...	3	1	9	11	10	5	2	2	3	1	...	47	5·6	4·26
Rheumatism	30	32	36	17	18	24	32	28	26	19	26	29	317	38·0	
Venereal Diseases	10	3	10	8	4	6	6	4	6	2	4	9	72	8·6	
Eye Diseases	1	1	6	3	5	6	10	3	4	5	4	1	49	5·9	1·15
Abscess and Ulcer ...	30	28	33	25	33	22	36	29	21	37	33	25	352	42·3	
Wounds and Accidents ...	30	16	19	19	24	21	36	25	17	18	19	23	267	32·4	
All other Causes	64	70	132	265	206	85	42	47	35	41	48	74	1,109	133·1	
	404	453	637	794	597	519	777	702	679	791	609	667	7,420		
	Admitted per 1,000 of the Average Strength in each Month.														
	49·1	53·9	76·2	96·4	72·5	62·9	92·9	84·2	81·3	95·2	71·3	55·1		890·5	

ADMINISTRATION OF BENGAL PROPER—TYPICAL JAILS, AND JAILS OF SPECIAL CHARACTERISTICS.

XXX.

COMPARATIVE STATEMENT showing the RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS 1867—76, in EIGHT TYPICAL JAILS included under the ADMINISTRATION of BENGAL PROPER.

	RATIO PER 1,000 OF STRENGTH.							
	Healthy Jails.					Unhealthy Jails.		
	Presidency.	Dacca.	Rajshahai.	Hazaribagh Central.	Monghyr.	Backergunge.	Rungpore.	Tirhoot.
1. Daily Sick-rate of each Month.								
January	41·4	28·5	25·0	29·2	21·2	38·9	48·0	28·6
February	38·5	32·6	21·5	21·8	17·3	36·6	43·9	28·3
March	38·1	32·9	22·2	25·5	17·1	38·2	45·9	31·6
April	40·1	33·6	24·3	29·6	16·1	42·7	47·4	30·9
May	35·8	30·0	21·5	25·9	15·6	41·2	55·7	27·6
June	30·2	29·3	22·3	25·2	15·6	38·7	55·5	23·3
July	42·7	31·1	24·2	30·7	18·9	40·0	52·2	22·4
August	45·0	29·9	28·7	34·9	22·9	39·7	52·8	33·8
September	46·7	29·0	23·5	34·7	23·6	44·4	53·2	38·5
October	51·2	28·4	21·7	32·0	21·6	50·1	54·3	38·6
November	47·8	31·8	28·9	30·3	18·5	53·6	52·5	37·0
December	44·6	30·7	26·7	25·6	17·9	52·3	48·4	30·7
Average Annual Daily Sick-rate	41·5	30·5	24·5	28·1	18·8	43·0	50·7	31·0
2. Admission-rate of each Month.								
January	188·5	67·0	43·2	49·1	42·2	74·1	103·2	58·6
February	174·0	65·8	39·4	55·9	36·6	65·4	89·3	56·8
March	223·1	72·0	52·3	76·2	42·2	97·1	107·8	79·0
April	219·0	74·4	63·9	96·4	42·7	103·7	115·5	82·3
May	186·4	61·0	44·2	72·5	41·0	113·2	121·5	62·1
June	158·8	73·4	39·3	62·9	36·7	85·6	99·6	64·4
July	214·4	80·4	50·0	92·9	69·0	102·6	107·3	69·6
August	212·8	69·9	62·7	84·2	70·6	107·8	121·8	112·2
September	216·3	69·2	46·0	81·3	61·3	96·1	110·7	108·7
October	254·7	72·9	53·2	95·2	55·9	111·7	123·6	91·0
November	213·7	79·4	67·1	71·3	43·3	100·9	118·0	83·0
December	203·6	74·6	49·9	55·1	40·4	95·1	117·6	69·9
Average Annual Admission-rate	2167·4	854·1	609·9	890·5	579·1	1163·5	1335·8	931·5
3. Composition of the Average Annual Admission-rate.								
Cholera	6·8	12·1	21·4	13·9	16·8	39·9	16·7	35·0
Fevers	836·2	279·9	249·2	431·2	155·5	593·7	447·8	226·3
Apoplexy	1·1	·5	1·2	·6	·3	1·9	·5	·4
Dysentery and Diarrhœa	870·5	159·4	179·3	132·6	106·6	464·5	426·2	358·3
Hepatitis	·5	1·9	·6	·5	·6	2·7	1·5	·7
Spleen Disease	16·1	14·6	12·1	3·7	7·7	11·9	38·1	4·9
Respiratory Diseases	35·0	50·5	17·3	24·9	32·1	32·6	42·5	22·3
Phthisis Pulmonalis	15·6	9·0	4·8	.....	2·0	3·1	31·2	.....
Dropsy	1·1	·5	7·2	1·4	·6	2·3	20·1	2·2
Atrophy and Anæmia	52·6	5·8	26·5	12·4	8·8	6·7	32·4	30·1
Scurvy	·4	4·9	·6	5·6	·6	0·0	·3	2·9
Rheumatism	31·0	25·1	5·8	38·0	19·1	20·9	14·9	49·0
Eye Diseases	28·2	6·7	7·8	5·9	13·1	17·8	5·6	19·4
Abscess and Ulcer	102·9	62·3	24·4	42·3	39·2	27·6	72·6	53·6
Wounds and Accidents	90·7	52·9	13·3	32·1	24·5	30·7	36·3	14·3
All other Causes	288·7	139·0	38·4	146·3	91·6	88·0	67·1	122·0
Average Annual Admission-rate	2167·4	854·1	609·9	890·5	579·1	1163·5	1335·8	931·5
4. Composition of the Average Annual Death-rate.								
Cholera	3·50	5·09	10·62	6·36	6·82	19·01	5·92	17·40
Fevers	1·58	2·28	4·04	4·20	2·28	10·02	5·92	2·45
Apoplexy	·70	·53	·90	·60	·28	1·04	·51	·22
Dysentery and Diarrhœa	7·53	3·86	14·05	14·64	15·64	54·93	53·01	56·00
Hepatitis	.....	·33	.....	·24	.....	·42	·51	.....
Spleen Disease	.....	1·58	1·35	·36	·57	1·04	3·60	1·12
Respiratory Diseases	2·98	6·32	3·89	3·24	1·62	5·01	5·15	3·35
Heart Diseases	·70	.....	·60	·12	.....	·63	·77	·22
Phthisis Pulmonalis	5·61	4·39	2·54	.....	1·71	2·72	22·39	1·56
Dropsy	.....	·35	2·09	·48	·57	1·67	14·41	1·12
Atrophy and Anæmia	·52	·88	5·23	3·12	3·13	·83	8·49	6·93
All other Causes	2·10	4·04	2·09	3·12	2·28	2·51	5·40	5·13
Violent Deaths	·88	·17	·45	·36	·28	·42	1·80	·45
Average Annual Death-rate	26·10	30·02	47·85	36·84	34·28	100·25	127·89	95·94

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—EASTERN SUB-DIVISION, EXCLUDING THE CENTRAL JAILS AT BENARES, ALLAHABAD AND FATEHGARH.

XXXI.

AGGREGATE of the SICKNESS and MORTALITY of the DISTRICT JAILS of the EASTERN SUB-DIVISION of the AREA included under the ADMINISTRATION of the NORTH-WESTERN PROVINCES, during the TEN YEARS from 1867 to 1876.

[The Jails included in this Aggregate are shown in the Mortality Table of the series, No. LV.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867-76.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera	Smallpox.	Fevers.	Apoplexy.	Dysentery.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	52,903	1,347	25·5	161	3·04	...	1	6	1	88	...	3	24	1	3	1	1	12	3	17
February	53,526	1,354	25·3	146	2·73	27	4	9	1	53	2	...	22	1	3	2	...	8	4	11
March	53,973	1,405	26·0	115	2·13	6	1	11	2	38	...	3	22	2	4	2	...	8	1	16
April	54,069	1,416	26·2	120	2·22	5	2	7	...	57	1	2	22	...	6	1	...	6	2	9
May	54,490	1,322	24·3	117	2·15	2	1	11	17	42	1	2	10	...	5	2	...	14	...	10
June	55,811	1,283	23·0	120	2·15	3	2	9	32	26	...	7	10	1	5	1	...	5	1	18
July	56,338	1,450	25·7	159	2·82	42	...	8	2	49	1	3	14	1	9	1	...	8	5	16
August	57,057	1,715	30·1	242	4·24	41	1	13	2	119	1	11	12	1	7	4	...	14	5	11
September	57,843	1,912	33·1	309	5·34	34	...	8	...	181	1	3	21	2	6	...	...	21	6	26
October	57,565	2,097	36·4	315	5·47	14	...	13	1	202	1	6	21	...	7	8	...	21	5	16
November	56,628	1,843	32·5	317	5·60	11	...	21	...	195	...	2	23	2	11	5	...	24	1	22
December	55,515	1,609	29·0	277	4·99	1	...	5	1	154	1	5	35	3	8	3	2	22	6	31
						196	12	121	59	1,204	9	47	235	13	74	30	3	163	39	203
						Died per 1,000 of the Average Strength.														
For the ten years ...	55,476	1,563	28·2	2,398	43·22	3·35	·22	2·18	1·06	21·70	·16	·85	4·24	·24	1·33	·54	·05	2·94	·70	3·66

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	...	5	22	26	26	4	...	83	1·5	...
Cholera	...	91	13	10	2	5	84	89	52	23	18	2	389	7·0	47·81
Smallpox	23	42	46	38	27	10	2	1	1	...	8	20	218	3·9	5·50
Enteric Fever (1872—76) ...	1	...	...	1	1	1	...	1	...	...	...	...	5	·1	}
Fever, Intermittent ...	833	786	1,000	1,150	1,147	1,020	1,241	1,574	2,359	2,865	1,744	1,117	16,836	303·5	·70
Fevers, Remittent and Continued	23	31	54	63	81	44	27	42	43	60	39	19	526	9·5	}
Apoplexy	1	1	3	...	66	125	3	4	...	3	2	2	230	3·8	28·10
Dysentery	382	234	372	311	275	247	545	958	891	778	664	535	6,192	111·6	} 11·51
Diarrhœa	195	170	280	346	265	274	395	663	536	448	410	289	4,271	77·0	}
Hepatitis	3	4	4	3	4	1	2	4	3	4	1	2	35	·6	25·71
Spleen Disease	56	31	25	38	46	42	38	44	39	42	50	38	489	8·8	9·61
Respiratory Diseases ...	164	169	136	107	91	88	103	98	78	113	148	169	1,464	26·4	16·05
Phthisis Pulmonalis ...	9	8	11	12	10	13	9	6	12	8	10	7	115	2·1	6·35
Dropsy	5	4	7	3	5	7	4	5	3	10	4	5	62	1·1	4·39
Atrophy and Anæmia ...	66	31	39	29	47	48	47	84	59	75	61	71	657	11·8	24·81
Scurvy	2	1	...	2	...	1	1	1	3	15	5	6	37	·7	8·11
Rheumatism	43	45	56	59	47	55	59	54	65	70	66	69	688	12·4	}
Venereal Diseases ...	105	85	117	120	127	115	134	111	100	108	107	76	1,305	23·5	
Eye Diseases	42	21	54	101	124	62	90	94	114	60	64	35	864	15·6	1·50
Abscess and Ulcer	469	501	593	483	579	815	808	649	526	482	402	478	6,845	123·4	
Wounds and Accidents ...	203	200	305	206	224	318	319	289	285	220	231	152	3,100	55·9	
All other Causes	361	371	389	360	384	339	374	347	325	345	310	308	4,236	76·0	}
	2,989	2,889	3,412	3,532	3,552	3,630	4,350	5,140	5,520	5,755	4,438	3,400	48,607		
	Admitted per 1,000 of the Average Strength in each Month.														
	56·5	54·0	63·2	65·3	65·2	65·0	77·2	90·1	95·4	100·0	78·4	61·2	826·2		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—WESTERN SUB-DIVISION, EXCLUDING THE CENTRAL JAILS AT BAREILLY, MEERUT AND AGRA.

XXXII.

AGGREGATE of the SICKNESS and MORTALITY of the DISTRICT JAILS of the WESTERN SUB-DIVISION of the AREA included under the ADMINISTRATION of the NORTH-WESTERN PROVINCES during the TEN YEARS from 1867 to 1876.

[The Jails included in this Aggregate are shown in the Mortality Table of the series, No. LV.]

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	47,334	1,034	21·8	122	2·58	...	1	7	...	37	1	1	49	1	5	...	...	6	2	12
February	47,539	970	20·4	83	1·75	...	...	8	...	25	...	...	23	...	6	2	...	10	...	8
March	48,270	907	18·8	47	·97	...	...	5	2	9	...	...	12	...	1	1	...	4	3	8
April	49,285	1,013	20·6	63	1·28	5	1	10	1	14	...	...	15	...	3	1	...	3	1	8
May	49,769	1,001	20·1	70	1·41	2	...	11	4	13	...	1	19	1	3	1	...	5	2	8
June	51,237	998	19·5	76	1·48	2	...	6	11	18	1	...	14	...	3	1	...	9	3	8
July	52,543	1,051	20·0	66	1·26	3	...	4	...	21	...	...	13	1	3	...	...	5	4	12
August	53,032	1,422	26·8	126	2·38	23	...	14	...	47	...	2	8	...	10	1	...	5	8	8
September	53,695	1,646	30·7	160	2·98	6	...	19	1	89	1	2	11	1	3	1	...	13	2	11
October	52,700	1,732	32·9	216	4·10	...	...	35	3	120	...	2	21	1	9	1	...	12	1	10
November	51,559	1,407	27·3	198	3·84	...	...	22	2	111	...	2	22	...	10	1	...	8	3	10
December	50,297	1,139	22·6	177	3·52	1	...	15	1	91	...	...	37	2	5	3	...	11	1	7
						42	2	156	27	598	3	14	251	7	69	13	...	93	30	110
						Died per 1,000 of the Average Strength.														
For the ten years ...	50,004	1,193	23·6	1,804	27·74	·83	·04	3·08	·53	11·82	·06	·28	4·96	·14	1·18	·26	...	1·80	·59	2·17

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	1	...	...	12	1	...	...	14	·3	...
Cholera	1	...	...	14	9	7	8	42	9	1	...	1	92	1·8	45·65
Smallpox	1	...	2	2	5	2	...	...	...	...	...	1	13	·3	15·38
Enteric Fever (1872—76) ...	...	...	...	...	3	...	...	...	...	...	...	...	3	·1	
Fever, Intermittent ...	547	487	637	884	998	851	1,188	2,352	2,957	2,763	1,302	764	15,730	310·8	
Fevers, Remittent and Continued	23	34	57	96	76	61	49	88	149	100	67	46	846	16·7	·94
Apoplexy	...	3	2	1	11	31	6	...	2	4	2	...	62	1·2	43·55
Dysentery	176	118	110	151	137	158	191	439	694	455	360	300	3,089	61·1	11·09
Diarrhœa	154	115	131	199	153	187	216	332	275	199	175	175	2,302	45·5	
Hepatitis	3	...	5	4	3	2	1	2	5	2	3	2	32	·6	9·38
Spleen Disease	17	11	14	17	9	13	21	17	22	29	17	17	204	4·0	6·86
Respiratory Diseases ...	228	171	137	150	144	102	114	79	85	123	145	196	1,664	32·9	15·08
Phthisis Pulmonalis ...	6	6	5	12	11	10	11	7	9	12	8	7	104	2·1	57·69
Dropsy	3	5	5	3	1	1	2	1	...	3	4	4	32	·6	40·63
Atrophy and Anæmia ...	31	43	26	38	27	26	32	37	55	51	40	55	461	9·1	19·74
Scurvy	...	1	1	4	15	1	2	...	2	...	2	1	31	·6	...
Rheumatism	58	39	62	45	45	63	59	37	66	59	57	57	638	12·6	
Venereal Diseases	65	72	62	76	81	72	80	72	69	65	60	59	821	16·2	
Eye Diseases	29	30	65	85	74	62	65	65	65	71	44	38	683	13·5	1·18
Abscess and Ulcer ...	453	422	500	417	388	505	575	481	512	355	343	292	4,953	98·3	
Wounds and Accidents ...	157	151	218	242	243	217	250	209	189	181	167	141	2,365	47·3	
All other Causes	224	213	272	331	232	274	265	206	201	219	194	198	2,939	58·1	
	2,176	1,921	2,211	2,762	2,665	2,676	3,136	4,528	5,068	4,631	2,980	2,331	37,128		
	Admitted per 1,000 of the Average Strength in each Month.														
	46·0	40·4	45·8	56·0	53·5	52·2	59·3	85·4	94·4	86·0	57·6	46·4	732·7		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXIII.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at BENARES during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	13,420	406	30·3	38	2·83	...	...	...	3	...	20	...	...	2	...	5	3	...	1	...	4
February	13,390	390	29·2	17	1·27	...	...	...	1	...	8	...	...	1	...	2	3	...	1	...	1
March	13,343	357	26·8	25	1·87	...	...	...	4	...	7	...	...	4	...	2	...	...	4	...	4
April	13,622	383	28·1	13	·95	...	...	...	2	...	6	...	...	...	...	3	...	...	...	...	2
May	14,104	396	28·1	11	·78	1	...	...	2	1	5	...	...	...	...	...	...	...	...	...	2
June	13,938	433	31·1	19	1·36	...	...	...	3	5	2	...	...	...	...	6	2	...	1	...	...
July	14,054	457	32·5	21	1·49	5	1	...	3	...	5	...	1	2	...	2	...	...	...	...	2
August	14,377	509	35·4	28	1·95	...	...	...	1	...	14	...	1	1	...	5	...	...	3	...	3
September	14,471	584	40·4	58	4·01	...	...	...	11	...	37	2	...	2	...	3	...	...	...	1	2
October	14,495	574	39·6	58	4·00	...	...	...	8	...	43	...	1	2	1	...	1	...	...	...	2
November	14,619	526	36·0	63	4·31	...	...	...	8	...	39	...	...	2	...	10	...	...	1	...	3
December	14,522	481	33·1	71	4·89	...	...	...	5	1	48	...	...	3	1	7	1	...	2	...	3
						6	3	...	51	7	234	2	3	19	2	45	10	...	11	1	28
						Died per 1,000 of the Average Strength.															
For the ten years ...	14,027	458	32·7	422	30·08	·43	·21	...	3·64	·50	16·68	·14	·21	1·36	·14	3·21	·71	...	·78	·07	2·00

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	1	...	6	...	...	...	1	...	8	·6	75·00
Smallpox	14	7	11	10	10	7	1	3	...	1	4	5	73	5·2	4·11
Enteric fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fever, Intermittent ...	313	233	268	309	396	321	452	630	711	686	552	383	5,274	376·0	
Fevers, Remittent and Continued	2	1	9	...	1	2	1	3	5	3	4	4	34	2·4	·96
Apoplexy	...	...	...	...	1	8	...	...	...	...	...	1	10	·7	70·00
Dysentery	65	42	56	50	36	32	86	238	202	171	155	113	1,246	88·8	
Diarrhœa	67	87	137	115	131	106	116	236	160	113	171	108	1,547	110·3	8·38
Hepatitis	1	...	1	...	...	1	2	...	...	1	...	1	7	·5	28·57
Spleen Disease... ...	3	4	3	2	7	4	...	3	3	4	3	3	39	2·8	7·69
Respiratory Diseases ...	29	19	19	13	9	9	8	8	11	8	6	17	156	11·1	12·18
Phthisis Pulmonalis ...	3	2	1	...	1	3	1	4	...	...	3	6	24	1·7	.....
Dropsy	...	...	...	...	...	...	...	...	...	1	1	...	2	·2	.....
Atrophy and Anæmia ...	11	15	7	6	7	21	13	7	5	6	3	21	122	8·7	9·02
Scurvy	...	1	1	...	...	...	...	2	...	...	...	...	3	·2	.....
Rheumatism	29	8	10	16	21	16	22	19	17	16	17	11	193	13·8	
Venereal Diseases ...	7	6	10	10	12	13	12	15	14	10	11	11	131	9·3	
Eye Diseases ...	4	7	15	9	7	9	9	9	7	4	7	3	90	6·4	
Abscess and Ulcer ...	203	197	214	191	249	401	364	176	176	168	130	139	2,608	185·9	·65
Wounds and Accidents ...	63	64	86	88	82	108	99	81	77	56	46	56	906	64·6	
All other Causes	70	72	88	71	86	83	77	79	42	55	50	83	856	61·0	
	875	764	936	950	1,057	1,144	1,269	1,513	1,430	1,202	1,164	965	13,329		
	Admitted per 1,000 of the Average Strength in each Month.														
	65·2	57·2	70·1	69·7	74·9	82·1	90·3	105·2	98·8	87·1	79·6	69·5	950·2		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXIV.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at FUTTEHGHUR during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.													
						Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	8,171	259	31·7	11	1·35	...	...	2	...	...	...	...	2	...	...	...	...	4	1	2
February	8,047	212	26·3	6	·75	...	...	1	...	3	...	...	1	...	...	...	...	...	...	1
March	8,025	231	28·8	7	·87	...	...	...	...	3	...	...	3	...	1	...	...	...	...	3
April	8,166	232	28·4	6	·73	...	...	...	...	3	...	...	...	...	...	1	...	...	...	2
May	8,406	247	29·4	8	·95	...	...	...	1	4	...	...	1	...	...	...	...	1	1	...
June	8,614	231	26·8	5	·58	...	...	1	2	1	...	...	1	...	...	...	...	...	...	...
July	9,125	256	28·1	11	1·21	...	...	1	...	4	...	...	3	...	...	...	...	...	...	...
August	9,195	298	32·4	12	1·31	1	...	3	...	5	1	...	...	...	2	...	...	...	...	1
September	8,913	321	36·0	10	1·12	1	...	1	...	8	...	...	...	...	...	...	...	...	...	...
October	8,856	385	43·5	19	2·15	...	...	3	...	11	...	...	2	...	2	...	...	...	1	1
November	8,908	380	42·7	18	2·09	...	...	3	...	10	...	...	1	...	...	1	...	...	...	3
December	9,076	334	36·8	12	1·32	...	...	...	...	7	...	...	2	1	...	...	...	2	...	...
						2	...	13	3	58	1	...	15	1	8	2	...	7	3	12
						Died per 1,000 of the Average Strength.														
For the ten years ...	8,632	282	32·7	125	14·48	·23	...	1·51	·35	6·72	·11	...	1·74	·11	·93	·23	...	·81	·35	1·39

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Augt.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	...	1	1	...	...	...	2	2	100·00
Smallpox	...	1	1	...	...	...	...	...	...	...	...	...	2	2	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	121	80	107	183	105	91	144	209	263	326	219	197	2,048	237·3	·38
Fevers, Remittent and Continued	7	5	19	34	15	21	11	20	17	14	11	2	181	21·0	
Apoplexy	...	...	...	...	2	8	...	...	...	...	...	...	10	1·2	30·00
Dysentery	26	9	12	23	13	17	27	55	68	48	47	31	376	43·6	7·10
Diarrhœa	29	15	38	25	25	28	34	54	66	42	49	45	411	51·1	
Hepatitis	...	...	...	...	1	...	...	1	...	...	...	1	3	·3	33·33
Spleen Disease ...	1	...	1	2	2	7	1	1	2	...	1	1	22	2·5	...
Respiratory Diseases ...	29	11	7	6	12	12	11	6	8	12	11	89	214	24·8	7·01
Phthisis Pulmonalis ...	1	2	...	2	2	5	2	1	2	1	...	1	19	2·2	42·12
Dropsy	2	1	2	1	...	...	...	...	...	3	...	...	9	1·0	22·22
Atrophy and Anæmia ...	2	1	5	5	4	5	1	1	4	1	4	8	41	4·7	17·07
Scurvy	...	...	...	...	...	...	...	...	13	28	2	...	43	5·0	...
Rheumatism	5	8	8	3	11	6	8	8	10	7	4	16	88	10·2	
Venereal Diseases ...	9	6	7	9	22	7	15	9	6	10	12	15	127	14·7	
Eye Diseases	4	4	9	12	18	11	14	11	7	3	5	6	104	12·1	
Abscess and Ulcer ...	212	163	164	171	161	259	292	272	222	213	164	217	2,471	286·3	·37
Wounds and Accidents ...	61	79	104	118	141	99	109	67	75	85	99	78	1,118	129·5	
All other Causes	39	24	45	43	52	37	49	40	46	24	31	27	457	52·9	
	551	409	529	637	586	577	718	756	819	817	653	733	7,776		
	Admitted per 1,000 of the Average Strength in each Month.														
	67·4	50·8	65·9	78·0	69·7	67·0	79·7	82·2	99·0	92·3	72·6	89·8	900·8		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXV.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at ALLAHABAD during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Diseases.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	20,461	372	18·2	60	2·93	...	...	...	4	...	30	...	...	7	1	4	...	...	1	3	10
February	20,336	352	17·3	38	1·87	...	1	...	1	...	17	...	1	4	...	1	...	...	2	1	6
March	20,231	357	17·6	42	2·08	9	...	...	1	...	29	...	...	4	...	1	1	...	2	1	3
April	19,446	415	21·3	54	2·78	7	1	...	2	...	35	...	...	3	2	1	...	...	1	1	1
May	19,107	395	20·7	39	2·04	...	1	...	6	4	16	...	...	5	...	2	...	...	2	...	3
June	18,939	345	18·2	35	1·85	...	1	...	1	6	15	...	...	1	...	4	...	...	3	...	4
July	19,390	345	17·8	28	1·45	...	...	...	2	...	9	1	...	5	...	4	...	...	3	2	2
August	19,133	401	21·0	42	2·20	...	...	...	3	1	21	...	1	5	...	3	...	...	2	2	4
September	19,150	441	23·0	29	1·51	...	...	...	2	...	10	...	...	4	...	3	...	...	2	...	8
October	19,440	482	24·8	53	2·73	...	...	...	6	1	11	...	...	4	...	3	1	...	2	...	25
November	19,054	478	24·3	49	2·40	...	...	...	1	1	15	...	1	9	...	1	...	...	4	1	16
December	19,846	395	19·9	65	3·28	...	...	...	3	...	30	...	...	18	...	1	...	...	1	1	11
						16	4	...	32	13	229	1	3	72	3	28	2	...	26	12	93
						Died per 1,000 of the Average Strength.															
For the ten year ...	19,590	399	20·4	534	27·26	·82	·20	...	1·63	·67	11·69	·05	·15	3·68	·15	1·43	·10	...	1·33	·61	4·75

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	26	3	...	...	...	...	...	...	...	...	29	1·5	55·17
Smallpox	4	8	13	19	17	7	2	1	1	2	5	10	89	4·5	4·49
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	147	123	185	221	205	230	212	280	332	573	353	184	3,015	153·9	1·04
Fevers, Remittent and Continued...	9	6	2	6	3	4	3	7	2	7	6	2	57	2·9	
Apoplexy	...	...	...	...	15	44	1	...	...	1	1	...	62	3·2	20·97
Dysentery	68	41	46	83	52	47	28	56	35	45	59	75	626	32·0	15·12
Diarrhœa	68	59	145	128	71	39	78	88	55	47	40	80	889	45·4	
Hepatitis	...	...	1	2	2	...	...	...	...	1	1	...	7	·4	14·29
Spleen Disease	2	2	1	2	1	3	2	3	1	2	1	6	26	1·3	11·54
Respiratory Diseases ...	47	28	32	31	15	10	15	22	13	28	44	46	331	16·9	21·75
Phthisis Pulmonalis ...	5	1	3	2	4	2	6	5	2	3	1	4	38	1·9	73·68
Dropsy	1	1	1	2	...	1	...	...	2	...	1	...	9	·5	22·22
Atrophy and Anæmia ...	8	4	10	6	10	10	9	7	4	11	6	8	93	4·7	27·96
Scurvy	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Rheumatism	9	5	15	12	2	10	9	4	6	6	8	4	90	4·6	
Venereal Diseases	17	21	17	17	13	13	15	11	13	12	8	13	170	8·7	
Eye Diseases	7	7	10	10	6	2	11	10	6	3	8	5	85	4·3	3·38
Abscess and Ulcer	137	135	137	141	153	136	162	194	202	176	148	109	1,831	93·5	
Wounds and Accidents ...	45	54	47	56	66	60	61	43	35	18	21	27	533	27·2	
All other Causes	41	46	51	39	42	44	42	46	36	30	34	37	488	24·9	
	615	534	742	780	677	632	656	777	745	965	736	610	8,469		
	Admitted per 1,000 of the Average Strength in each Month.														
	30·1	26·3	36·7	40·1	35·4	33·4	33·9	40·6	38·9	49·6	37·4	30·7	432·3		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXVI.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at AGRA during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	18,112	315	17·4	17	1·49	...	...	...	...	...	8	...	...	10	1	1	...	...	2	1	4
February	18,144	328	18·1	16	·88	...	...	...	1	...	4	...	...	6	...	1	...	...	...	1	3
March	18,383	324	17·7	13	·71	1	...	...	...	...	3	1	...	4	...	1	...	...	4	...	1
April	18,397	358	19·5	18	·98	...	...	...	3	...	4	1	...	4	...	...	...	...	1	2	3
May	18,360	364	19·8	27	1·47	...	...	...	2	...	3	1	...	8	...	...	...	...	1	1	4
June	18,680	384	20·6	20	1·07	...	...	...	1	1	3	1	1	8	...	...	...	...	...	2	1
July	18,893	424	22·8	20	1·06	1	...	...	2	1	8	1	1	3	1	...	1	...	2	...	2
August	18,954	575	30·3	40	2·11	3	...	...	1	...	11	1	...	6	...	6	...	...	...	...	14
September	18,988	769	40·5	50	2·63	3	...	...	...	...	20	...	...	11	1	8	...	1	1	...	5
October	18,790	734	39·1	65	3·46	...	...	...	1	...	28	1	1	20	1	12	1	2	...	...	8
November	18,758	580	30·9	46	2·45	...	...	...	...	...	27	...	2	8	1	12	...	1	...	1	4
December	18,431	436	23·7	43	2·33	...	...	...	3	1	19	...	...	6	1	3	...	...	2	...	8
						8	...	...	14	3	138	7	5	94	6	38	2	4	11	8	57
						Died per 1,000 of the Average Strength.															
For the ten years ...	18,567	467	25·2	395	21·27	·43	...	...	·75	·16	7·43	·38	·27	5·06	·32	2·05	·11	·22	·59	·43	3·07

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Dengue	...	...	...	...	...	...	...	67	215	21	...	...	303	16·3	...
Cholera	...	...	1	...	...	...	6	6	4	...	...	...	17	·9	47·06
Smallpox ...	1	2	7	3	3	1	...	...	...	...	...	...	17	·9	...
Enteric Fever (1872 to 1876) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	88	111	134	250	243	304	268	459	603	482	272	154	3,368	181·4	·41
Fevers, Remittent and Continued	1	...	3	3	4	5	2	3	1	1	...	3	26	1·4	
Apoplexy	...	...	...	...	4	31	1	...	...	1	...	...	37	2·0	8·11
Dysentery	34	16	23	50	42	29	85	234	259	165	88	42	1,067	54·2	8·97
Diarrhœa	13	6	19	39	44	30	73	170	58	27	28	24	531	28·6	
Hepatitis	1	3	6	3	4	4	3	6	8	4	1	1	43	2·3	16·28
Spleen Disease ...	7	1	5	1	7	3	3	3	3	7	5	2	47	2·5	10·64
Respiratory Diseases ...	67	62	80	71	72	86	66	63	88	86	73	79	903	48·9	10·30
Phthisis Pulmonalis ...	2	4	5	8	7	4	14	10	8	2	4	5	73	3·9	52·05
Dropsy	...	1	...	...	...	1	...	...	1	...	...	...	3	·2	66·67
Atrophy and Anæmia ...	5	2	7	10	15	9	10	6	18	12	8	6	108	5·8	10·19
Scurvy	2	5	1	1	14	3	6	17	41	22	3	2	117	6·3	3·42
Rheumatism ...	4	4	8	7	8	12	9	15	19	13	21	7	127	6·9	
Venereal Diseases ...	13	16	13	19	11	15	12	26	12	17	12	11	177	9·5	
Eye Diseases ...	6	2	11	16	17	11	11	24	21	12	45	10	186	10·0	
Abscess and Ulcer ...	92	87	72	74	69	93	86	94	75	85	78	81	988	53·1	2·29
Wounds and Accidents	38	18	31	30	38	40	41	42	32	31	39	31	402	21·7	
All other Causes ...	66	58	80	85	82	85	138	169	151	134	95	67	1,229	65·7	
	440	398	515	680	689	766	834	1,414	1,617	1,062	702	525	9,702		
	Admitted per 1,000 of the Average Strength in each Month.														
	24·3	21·9	28·2	37·0	37·5	41·0	44·4	74·6	85·2	56·5	40·6	28·5	522·5		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXVII.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at BAREILLY during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	14,219	287	20·2	102	7·17	...	...	...	27	...	19	...	...	28	...	11	1	...	6	...	10
February	14,220	274	19·3	39	2·74	...	...	...	8	1	11	...	...	11	...	3	...	...	2	...	3
March	13,417	268	20·0	28	2·09	...	...	...	12	...	4	...	...	5	...	2	...	...	2	...	3
April	13,253	281	21·2	26	1·96	...	...	...	11	...	5	...	...	6	...	2	...	...	1	...	1
May	13,125	261	19·9	35	2·67	...	...	...	13	3	8	...	...	3	...	2	...	...	3	...	3
June	12,995	241	18·5	28	2·15	...	...	...	8	2	4	...	...	5	...	...	...	...	5	...	4
July	13,230	238	18·0	19	1·44	...	...	...	4	...	8	...	...	4	...	1	1	...	1	...	...
August	13,602	269	19·6	32	2·34	5	...	...	1	1	11	...	...	2	...	...	2	...	8	...	2
September	13,848	329	23·1	52	3·76	1	...	...	8	1	28	...	...	9	...	...	...	...	5	...	...
October	14,426	350	24·3	68	4·71	...	...	...	16	...	29	...	...	4	1	2	...	...	12	...	4
November	14,430	318	22·0	86	5·96	...	...	...	16	1	39	...	...	6	1	5	...	...	11	...	7
December	14,324	309	21·6	66	4·61	...	...	...	18	...	29	...	...	4	...	5	...	...	3	...	7
						6	...	..	162	9	195	...	...	87	2	33	4	...	59	*	44
						Died per 1,000 of the Average Strength.															
For the ten years ...	13,765	285	20·7	581	42·21	·43	...	...	10·32	·65	14·17	...	...	6·32	·14	2·40	·29	...	4·29	*	3·20

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	...	8	...	...	...	...	8	·6	75·00
Smallpox	...	...	2	2	...	...	...	...	...	...	...	...	4	·3	...
Enteric Fever (1872–76) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	229	246	293	315	363	245	347	340	368	344	288	220	3,531	256·5	3·39
Fevers, Remittent and Continued	69	58	64	73	74	31	28	33	40	63	58	59	600	43·0	
Apoplexy	...	1	...	...	4	2	...	1	1	...	1	...	10	·7	30·00
Dysentery	24	13	22	22	22	9	24	102	70	57	57	65	406	36·0	13·06
Diarrhœa	66	37	33	49	51	42	75	170	118	74	114	103	932	67·7	
Hepatitis	...	...	...	...	...	...	...	...	1	...	...	...	1	·1	...
Spleen Disease	...	...	1	2	...	1	1	...	...	...	2	2	9	·7	...
Respiratory Diseases ...	84	39	27	31	22	23	23	21	20	21	35	22	359	29·1	24·23
Phthisis Pulmonalis ...	8	2	2	2	2	1	1	...	1	5	8	7	39	2·8	84·62
Dropsy	...	...	...	...	1	...	1	2	...	...	...	2	6	·4	66·67
Atrophy and Anæmia ...	14	8	3	9	8	12	8	14	13	16	16	10	131	9·5	45·04
Scurvy	...	...	...	...	...	...	...	...	1	...	...	...	1	·1	...
Rheumatism ...	21	9	11	15	8	19	20	14	14	16	20	13	178	12·9	
Venereal Diseases ...	18	11	18	17	10	23	29	16	16	29	19	12	209	15·2	
Eye Diseases	9	4	8	16	19	12	16	7	10	32	14	17	164	11·9	1·82
Abscess and Ulcer ...	179	184	169	174	170	164	205	158	166	178	131	135	2,013	146·2	
Wounds and Accidents ...	25	14	32	30	34	25	35	24	54	14	20	11	318	23·1	
All other Causes	44	23	23	30	27	44	38	29	29	26	37	17	367	26·7	
	790	650	641	785	815	653	842	939	931	875	820	695	9,436		
	Admitted per 1,000 of the Average Strength in each Month.														
	55·6	45·7	47·8	59·2	62·1	50·3	62·6	68·6	67·2	60·7	56·8	48·5	685·5		

* In 1871, eleven prisoners were killed in an outbreak, or died shortly afterwards of their wounds.

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—CENTRAL JAILS.

XXXVIII.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at MEERUT during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	11,485	435	37·9	109	9·49	...	...	...	8	...	68	...	...	19	...	1	...	...	6	1	6
February	11,309	398	35·2	32	2·82	...	...	...	3	1	14	...	...	6	...	2	...	...	6	...	...
March	11,098	259	23·3	18	1·62	...	...	...	2	...	6	...	...	6	...	1	...	...	2	...	1
April	11,191	245	21·9	28	2·50	...	...	...	6	...	5	...	...	11	...	1	...	...	3	...	3
May	11,502	235	20·3	33	2·85	...	...	...	3	1	4	...	...	7	...	6	...	...	6	...	6
June	11,690	235	20·1	26	2·22	...	...	...	2	3	4	...	...	11	...	2	...	...	2	1	1
July	11,638	330	28·4	15	1·29	...	...	...	2	...	5	...	...	1	...	3	1	...	...	1	2
August	11,751	666	56·7	46	3·91	...	...	...	12	...	11	...	...	9	1	3	...	...	3	1	6
September	11,807	828	70·1	129	10·93	14	...	...	15	...	68	...	...	14	1	7	...	...	5	...	5
October	11,570	839	72·5	166	14·35	2	...	...	14	1	122	...	...	12	...	6	1	...	5	1	2
November	11,415	612	53·6	178	15·59	...	...	...	14	...	125	...	...	13	...	7	1	...	12	...	6
December	11,419	562	49·2	166	14·54	...	...	...	7	1	107	...	...	28	2	3	1	1	15	...	1
						16	...	...	84	7	539	...	...	140	4	42	4	1	65	5	39
						Died per 1,000 of the Average Strength.															
For the ten years ...	11,499	467	40·6	916	82·27	1·39	...	...	7·31	·61	46·87	...	...	12·18	·35	3·65	·35	·09	5·65	·43	3·3

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	...	...	...	...	20	...	...	...	26	2·3	61·54
Smallpox	...	...	...	1	1	1	...	...	...	...	1	...	4	·3	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Fever, Intermittent ...	161	80	109	144	273	167	490	1,129	1,130	870	433	231	5,508	479·0	1·51
Fevers, Remittent and Continued	1	1	...	2	4	5	9	8	11	8	10	1	60	5·2	
Apoplexy	...	...	...	...	1	12	...	...	...	1	...	1	15	1·3	46·67
Dysentery	66	16	14	24	31	17	41	105	350	252	204	132	1,453	124·6	27·81
Diarrhœa	39	13	6	19	14	11	11	27	100	91	89	85	505	43·9	
Hepatitis	...	...	1	...	...	...	...	1	...	...	...	...	2	·2	.....
Spleen Disease	2	...	...	...	...	1	1	3	1	...	...	...	8	·7	.....
Respiratory Diseases ...	68	42	41	61	35	46	54	21	22	35	41	85	531	46·2	26·37
Phthisis Pulmonalis ...	1	4	1	2	4	5	4	2	3	6	6	4	42	3·7	100·00
Dropsy	...	...	...	1	2	1	1	...	1	...	1	...	7	·6	57·14
Atrophy and Anæmia ...	51	18	26	18	12	12	9	7	13	27	38	37	268	23·3	24·25
Scurvy	1	...	...	...	...	...	...	...	...	1	...	2	4	·3	25·00
Rheumatism	12	12	8	11	15	11	10	7	9	13	21	10	139	12·1	
Venereal Diseases ...	5	3	7	8	5	13	11	10	6	6	4	4	82	7·1	
Eye Diseases	8	3	9	10	27	18	5	10	15	24	18	8	155	13·5	3·23
Abscess and Ulcer ...	68	56	65	69	64	81	74	33	31	27	37	54	657	57·1	
Wounds and Accidents ...	16	10	13	15	14	14	16	12	8	6	3	7	134	11·7	
All other Causes... ...	22	22	22	35	35	43	39	27	12	24	18	16	315	27·4	
	519	280	322	429	537	453	755	1,754	1,738	1,491	921	697	9,895		
	Died per 1,000 of the Average Strength in each Month.														
	45·2	24·7	29·0	37·5	46·3	39·2	64·9	149·3	147·2	128·9	80·9	61·0	860·5		

ADMINISTRATION OF OUDH—CENTRAL JAIL, LUCKNOW.

XXXIX.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at LUCKNOW during the TEN YEARS from 1867 to 1876.

[A Jail consistently healthy throughout the ten years.]

MONTHS.	Aggregate of the average Strength of each month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	17,401	405	23·3	50	2·87	...	...	...	...	1	25	...	...	2	...	7	...	...	10	...	5
February	17,391	331	19·0	24	1·38	...	...	...	2	...	14	...	...	1	...	2	...	...	...	1	4
March	17,271	279	16·2	21	1·22	...	1	...	1	...	3	...	...	...	...	9	...	...	2	1	4
April	17,213	270	15·7	18	1·05	...	...	...	...	...	7	...	...	1	...	4	1	...	3	...	2
May	17,206	247	14·3	23	1·33	1	1	...	...	...	5	...	...	3	...	6	...	...	3	...	4
June	17,330	271	15·6	21	1·21	...	...	...	1	2	3	1	...	...	*1	8	...	...	3	...	2
July	17,355	280	16·1	28	1·61	...	...	...	3	2	5	...	...	1	...	8	2	...	2	...	5
August	17,320	311	18·0	31	1·79	...	1	...	2	...	9	...	...	3	...	8	...	...	4	1	3
September	17,253	296	17·2	28	1·62	2	...	...	1	...	13	...	...	2	...	4	...	...	3	...	3
October	17,252	338	19·6	40	2·32	...	...	...	2	1	15	...	...	...	1	11	...	...	4	...	6
November	17,276	364	21·1	32	1·85	...	...	...	1	...	9	...	...	3	1	9	...	...	5	...	4
December	17,252	353	20·5	42	2·43	...	...	...	1	...	22	...	...	1	...	8	2	...	6	...	3
						3	3	...	14	6	130	1	...	17	3	84	5	...	44	3	45
						Died per 1,000 of the Average Strength.															
For the ten years ...	17,300	312	18·0	358	20·69	·17	·17	...	·81	·35	7·52	·06	...	·98	·17	4·86	·29	...	2·54	·17	2·60

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	4	4	3	1	...	1	2	1	...	...	16	·9	18·75
Smallpox	1	4	10	23	6	8	2	...	...	...	3	2	59	3·4	5·08
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	93	81	85	81	61	68	101	121	183	242	173	75	1,364	78·8	}
Fevers, Remittent and Continued... ...	1	3	1	18	15	14	15	49	42	39	52	10	259	15·0	} ·86
Apoplexy	1	...	...	...	...	4	2	...	...	1	...	...	8	·5	75·00
Dysentery	78	25	30	34	28	20	46	63	68	60	97	77	636	36·8	} 11·63
Diarrhœa	42	33	38	31	24	39	58	49	47	45	45	26	477	27·6	
Hepatitis	...	3	...	1	1	1	1	2	...	1	2	...	12	·7	8·33
Spleen Disease	10	...	2	2	...	2	3	3	3	4	4	4	37	2·1	...
Respiratory Diseases ...	27	23	19	8	27	23	20	18	7	26	51	55	304	17·6	6·59
Phthisis Pulmonalis ...	26	9	12	31	21	13	16	16	12	20	19	26	221	12·8	38·01
Dropsy	1	4	1	...	2	1	...	...	3	1	6	2	21	1·2	23·81
Atrophy and Anæmia ...	84	10	8	20	22	24	16	26	22	18	19	50	319	18·4	13·79
Scurvy	...	...	...	...	...	...	...	2	...	...	...	2	4	·2	...
Rheumatism	6	3	4	2	6	4	8	6	1	10	6	6	61	3·5	}
Venereal Diseases	11	6	14	10	6	6	9	8	6	5	2	5	83	5·1	}
Eye Diseases	4	10	28	21	18	17	12	9	4	5	4	9	141	8·2	} 4·01
Abscess and Ulcer	24	31	40	21	27	47	33	20	11	13	11	19	297	17·2	}
Wounds and Accidents ...	9	8	12	6	20	8	12	9	7	11	5	7	114	6·6	}
All other Causes	36	49	67	57	38	44	72	58	28	40	40	41	570	32·9	}
	453	303	375	370	325	344	426	460	446	551	539	416	5,008		
	Admitted per 1,000 of the Average Strength in each Month.														
	26·0	17·4	21·7	21·5	18·8	19·8	24·5	26·6	25·9	31·9	31·2	24·1	289·5		

ADMINISTRATION OF OUDH—CENTRAL JAIL, LUCKNOW.

XL.

GENERAL STATISTICS of SICKNESS and MORTALITY of the CENTRAL JAIL at LUCKNOW for each Year of the TEN-YEAR period 1867—1876.

I.—DAILY SICK-RATE OF EACH MONTH OF THE PERIOD.

YEAR.	Average Strength of each year.	Number Daily Sick per 1,000 of Strength.											Average Daily Sick-rate of the year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	1,765	16·1	12·1	17·7	17·3	13·6	15·0	18·0	17·8	18·6	28·6	22·6	27·2	18·7
1868	1,698	24·2	21·2	22·1	21·3	21·1	22·1	17·9	14·7	13·9	18·8	19·1	19·4	19·4
1869	1,715	20·7	20·4	23·3	21·1	19·5	23·5	22·3	26·7	28·0	23·7	24·1	27·1	23·3
1870	1,735	24·2	22·8	16·7	17·8	15·6	15·4	19·8	23·4	20·3	27·2	26·3	43·1	23·6
1871	1,708	21·9	26·2	15·8	12·9	12·3	11·9	12·1	15·0	20·6	30·1	22·6	18·9	22·8
1872	1,687	16·8	18·2	19·3	17·5	15·6	17·5	21·8	19·0	17·7	19·8	17·6	19·6	18·4
1873	1,762	27·2	28·7	11·6	13·3	11·4	10·8	12·0	11·3	14·6	18·7	18·7	15·4	16·5
1874	1,766	11·8	13·4	15·4	15·2	15·4	19·9	17·6	22·6	14·6	13·0	10·6	11·2	15·3
1875	1,732	9·6	9·0	9·7	8·1	6·3	7·0	7·6	10·6	10·6	10·1	10·9	10·2	9·2
1876	1,733	11·8	9·0	10·6	12·9	12·6	13·8	12·2	15·6	12·8	17·8	29·2	14·0	14·4
1867—76 ...	17,300	23·3	19·0	16·2	15·7	14·3	15·6	16·1	18·0	17·2	19·6	21·1	20·5	18·0

II.—ADMISSION RATE FROM ALL CAUSES IN EACH MONTH OF THE PERIOD.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Month.												Admission rate of the year.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
1867	14·4	21·6	51·8	33·5	14·2	15·0	28·7	30·5	32·0	37·6	28·6	18·7	326·3
1868	13·9	23·7	15·3	21·4	31·7	21·0	18·6	9·6	10·5	17·6	18·5	18·8	220·3
1869	13·6	16·5	12·2	11·7	14·8	11·2	13·5	22·5	12·8	13·5	47·0	53·1	237·3
1870	40·9	12·5	17·2	13·8	12·8	18·8	22·6	21·7	13·3	37·9	40·8	42·0	302·0
1871	63·2	15·2	14·0	24·0	13·4	16·8	21·9	27·9	37·6	30·0	26·8	11·4	308·5
1872	21·6	18·8	15·7	29·5	21·0	19·4	27·9	19·6	28·3	25·1	15·9	15·7	249·0
1873	34·1	23·8	32·0	25·5	23·4	20·5	40·5	39·6	57·3	60·6	48·4	29·8	436·4
1874	26·3	22·9	13·7	12·2	23·9	38·1	38·1	47·5	25·9	28·3	18·5	16·8	312·6
1875	12·5	14·7	20·6	28·8	14·9	13·5	14·0	27·5	21·8	17·8	28·1	19·8	233·8
1876	20·2	10·7	22·4	22·9	18·3	23·7	19·2	19·7	18·0	43·9	29·8	14·0	262·0
1867—76 ...	26·0	17·4	21·7	21·5	18·8	19·8	24·5	26·6	25·9	31·9	31·2	24·1	289·5

III.—COMPOSITION OF THE ADMISSION-RATE OF EACH YEAR.

YEAR.	Admitted into Hospital per 1,000 of the Average Strength in each Year.																Admission-rate of the year
	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	Scurvy.	Rheumatism.	Eye Diseases.	Abscess and Ulcer.	Wounds and Accidents.	All other Causes.	
1867	6·2	81·1	...	87·8	...	·6	16·4	5·1	1·1	6·2	...	4·5	36·3	17·5	5·7	57·8	326·3
1868	...	39·5	...	49·5	...	1·7	21·2	16·5	·6	7·7	...	6·5	14·7	10·6	4·7	47·1	220·3
1869	1·2	66·0	·6	54·8	1·7	3·5	50·7	14·6	...	16·9	...	2·9	·6	10·5	5·3	28·0	237·3
1870	...	93·9	...	69·2	1·2	2·3	24·2	28·8	1·7	30·0	2·3	1·7	2·3	16·1	2·3	26·0	302·0
1871	...	60·3	...	90·7	1·2	1·8	11·7	31·6	·6	66·7	...	1·2	2·9	8·2	·6	31·0	308·5
1872	...	74·7	...	55·7	1·2	1·8	8·9	5·3	3·6	17·2	...	4·1	3·0	31·4	7·7	34·4	249·0
1873	·6	183·9	1·7	77·2	·6	4·0	14·7	6·8	1·1	12·5	...	4·5	4·5	39·7	15·9	68·7	436·4
1874	1·1	126·9	·6	50·4	1·1	4·0	12·5	4·0	1·1	14·7	...	5·7	4·0	23·2	9·0	54·3	312·6
1875	...	112·0	...	45·0	...	·6	6·9	9·2	1·7	2·9	...	1·2	4·6	6·9	8·1	34·7	233·8
1876	...	115·4	1·7	62·3	...	1·2	8·7	6·3	·6	10·4	...	2·9	8·1	6·9	6·3	31·2	262·0
1867—76 ...	·9	93·8	·5	64·4	·7	2·1	17·6	12·8	1·2	18·4	·2	3·5	8·2	17·2	6·6	41·4	289·5

IV.—DEATH-RATE OF EACH YEAR, AND ITS GENERAL COMPOSITION.

YEAR.	Annual Death-rate per 1,000 of Strength.			Died per 1,000 from the different Causes of Mortality.													
	A Cholera.	B All other Causes.	C All Causes.	Cholera.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Disease.	Phthisis Pulmonalis.	Dropsy.	Atrophy and Anæmia.	All other Causes.	Violent Deaths.	
1867	·57	24·93	25·50	·57	3·97	...	10·76	...	...	1·13	·57	3·97	...	1·13	3·40	...	
1868	...	9·42	9·42	...	...	...	3·53	...	...	1·18	·59	2·94	...	...	1·18	...	
1869	1·17	18·07	19·24	1·17	...	·58	6·25	...	...	1·75	...	5·83	...	·58	3·50	·58	
1870	...	29·97	29·97	...	2·30	...	12·10	·48	...	1·15	...	6·92	·58	4·61	1·15	·58	
1871	...	35·13	35·13	...	...	...	9·05	...	...	...	·59	12·29	·59	6·44	5·32	...	
1872	...	32·69	32·69	...	·59	...	18·38	...	...	1·78	...	4·74	·59	4·74	1·78	...	
1873	...	22·13	22·13	...	·57	1·70	5·11	...	...	1·13	...	3·97	·57	3·40	5·11	·57	
1874	...	15·29	15·29	...	·57	·57	6·25	...	...	...	...	1·70	·57	2·26	3·39	...	
1875	...	8·08	8·08	...	...	...	·58	...	...	1·15	...	4·04	...	...	2·31	...	
1876	...	9·81	9·81	...	...	·58	3·46	...	...	·58	...	2·31	...	2·31	·58	...	
1867—76 ...	·17	20·52	20·69	·17	·81	·35	7·32	·06	...	·93	·17	4·06	·29	2·54	2·77	·17	

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES AND OUDH.

XLI.

COMPARATIVE STATEMENT showing the RATIOS of SICKNESS and MORTALITY on the AVERAGE of the TEN YEARS from 1867 to 1876, in the TWO SUB-DIVISIONS and SIX CENTRAL JAILS included under the ADMINISTRATION of the NORTH-WESTERN PROVINCES and in the LUCKNOW JAIL of the OUDH ADMINISTRATION.

	RATIO PER 1,000 OF STRENGTH.							
	N.-W. Provinces.		Benares.	Fatehgarh.	Allahabad.	Agra.	Bareilly.	Meerut.	Lucknow.
	Eastern Division.	Western Division.							
1. Daily Sick-rate of each Month.									
January	25·5	21·8	30·3	31·7	18·2	17·4	20·3	37·9	23·3
February	25·3	20·4	29·2	30·3	17·3	18·1	19·3	37·2	19·0
March	26·0	18·8	26·8	28·8	17·6	17·7	20·0	23·3	16·2
April	26·2	20·6	28·1	29·4	21·3	19·5	21·2	21·9	15·7
May	24·3	20·1	28·1	29·4	20·7	19·8	19·9	20·3	14·3
June	23·0	19·5	31·1	26·8	18·2	20·6	18·5	20·1	15·6
July	25·7	20·0	32·5	28·1	17·8	22·8	18·0	28·4	16·1
August	30·1	26·8	35·4	32·4	21·9	30·3	19·6	50·7	18·3
September	33·1	30·7	40·4	38·0	23·0	40·5	23·1	70·1	17·2
October	36·4	32·9	39·6	43·5	24·8	39·1	24·3	72·5	19·6
November	32·5	27·3	36·0	42·2	24·3	30·9	22·0	58·0	21·1
December	29·9	22·6	33·1	36·8	19·9	23·7	21·6	49·2	20·5
Average Annual Sick-rate	28·2	23·6	32·7	32·7	20·4	25·2	20·7	40·6	18·9
2. Admission-rate of each Month.									
January	56·5	46·0	65·2	67·4	30·1	24·3	55·6	45·2	26·0
February	54·0	40·4	57·2	59·8	26·3	21·9	45·7	24·7	17·4
March	63·2	45·8	70·1	65·9	30·7	28·2	47·8	29·0	21·7
April	65·3	56·0	69·7	78·0	40·1	37·0	59·2	37·5	21·5
May	65·2	53·5	74·9	69·7	35·4	37·5	62·1	46·3	18·8
June	65·0	52·2	82·1	67·0	33·4	41·0	50·3	39·2	19·8
July	77·2	59·3	90·3	78·7	33·9	44·4	63·6	64·9	24·5
August	90·1	85·4	105·2	82·2	40·6	74·6	68·6	149·3	26·6
September	95·4	94·4	98·8	90·9	38·9	85·2	67·2	147·2	25·9
October	100·0	89·0	87·1	92·3	49·6	56·5	60·7	128·9	31·9
November	78·4	57·8	79·6	72·6	37·4	40·6	56·8	80·9	31·2
December	61·2	46·4	66·5	80·8	30·7	28·5	48·5	61·0	24·1
Average Annual Admission-rate	876·2	733·7	959·2	900·8	432·3	522·5	685·5	860·5	289·5
3. Composition of the Average Annual Admission-rate.									
Cholera	7·0	1·8	·6	·2	1·5	·9	·6	2·3	·9
Fevers	313·1	327·6	378·4	258·3	156·8	182·8	304·5	484·2	93·8
Apoplexy	3·8	1·2	·7	1·2	3·2	2·0	·7	1·3	·5
Dysentery and Diarrhœa	188·6	166·6	199·1	94·7	77·4	82·8	103·7	168·5	64·4
Hepatitis	·6	·6	·5	·3	·4	2·3	·1	·2	·7
Spleen Diseases	8·8	4·0	2·8	2·5	1·3	2·5	·7	·7	2·1
Respiratory Diseases	20·4	32·9	11·1	24·8	16·9	48·9	26·1	46·2	17·6
Phthisis Pulmonalis	2·1	2·1	1·7	2·2	1·9	3·9	2·8	3·7	12·8
Dropsy	1·1	·6	·2	1·0	·5	·2	·4	·6	1·2
Atrophy and Anæmia	11·8	9·1	8·7	4·7	4·7	5·8	9·5	23·3	18·4
Scurvy	·7	·6	·2	5·0	...	6·3	·1	·3	·2
Rheumatism	12·4	12·6	13·8	10·2	4·6	6·9	12·9	12·1	3·5
Eye Diseases	15·6	13·5	6·4	12·1	4·3	10·0	11·9	13·5	8·2
Abscess and Ulcer	123·4	98·3	185·9	286·3	93·5	53·1	186·2	57·1	17·2
Wounds and Accidents	55·9	47·3	64·6	129·5	27·2	21·7	23·1	11·7	6·6
All other Causes	104·9	74·9	75·5	67·8	38·1	92·4	42·2	34·8	41·4
Average Annual Admission-rate	876·2	733·7	959·2	900·8	432·3	522·5	685·5	860·5	289·5
4. Composition of the Average Annual Death-rate.									
Cholera	3·35	·83	·43	·23	·82	·43	·13	1·39	·17
Fevers	2·18	3·08	3·64	1·51	1·63	·75	10·32	7·31	·81
Apoplexy	1·06	·33	·50	·35	·67	·16	·65	·61	·35
Dysentery and Diarrhœa	21·70	11·92	10·68	6·72	11·69	7·43	14·17	46·87	7·52
Hepatitis	·16	·06	·14	·11	·05	·38	...	...	·06
Spleen Diseases	·85	·28	·21	...	·15	·27	...	...	...
Respiratory Disease	4·24	4·96	1·36	1·74	3·68	5·06	6·32	12·18	·98
Heart Diseases	·24	·14	·14	·11	·15	·32	·14	·35	·17
Phthisis Pulmonalis	1·33	1·18	3·21	·93	1·43	2·05	2·80	3·65	4·86
Dropsy	·54	·26	·71	·23	·10	·11	·29	·35	·29
Atrophy and Anæmia	2·24	1·80	·78	·81	1·33	·39	4·29	5·65	2·34
All other Causes	3·93	2·21	2·21	1·39	4·05	3·20	3·20	3·48	2·77
Violent Deaths	·70	·39	·07	·35	·01	·43	...	·43	·17
Average Annual Death-rate	43·22	27·74	30·06	14·48	27·26	21·27	42·21	82·27	20·69

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—TYPICAL JAILS.

XLII.

AGGREGATE of the SICKNESS and MORTALITY of the JAIL at GHAZIPORE during the TEN YEARS from 1867 to 1876.

[A Jail of the Eastern Sub-division consistently healthy throughout the period.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867-76.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.															
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	5,169	23	4·2	6	1·10	...	...	...	...	...	3	...	...	1	...	...	...	...	...	...	
February	5,328	21	3·9	11	2·06	...	...	...	2	...	4	...	...	1	...	...	...	...	...	2	
March	5,288	35	6·6	6	1·13	...	...	...	...	...	3	...	...	1	...	...	...	...	1	...	
April	5,282	30	5·7	4	·76	1	...	...	...	...	2	...	...	...	...	1	...	...	...	...	
May	5,313	36	6·8	4	·75	...	...	...	...	...	2	...	...	...	...	1	...	...	1	...	
June	5,305	26	4·8	7	1·30	...	...	...	1	2	1	...	1	...	...	...	...	...	...	...	
July	5,372	30	5·6	9	1·68	...	...	...	...	...	4	...	...	1	...	1	...	...	2	...	
August	5,275	37	7·0	11	2·09	...	...	...	1	...	6	...	...	1	...	...	...	...	2	1	
September ...	5,309	36	6·7	10	1·87	...	...	...	...	...	6	...	...	...	...	1	...	...	1	...	
October	5,387	36	6·7	19	3·53	...	...	...	...	...	7	...	...	2	...	...	2	...	4	1	
November ...	5,298	36	6·8	10	1·89	...	...	...	...	...	7	...	...	...	...	...	1	...	...	...	
December	5,206	31	6·0	14	2·69	...	...	...	...	...	7	...	1	2	...	...	...	...	1	1	
						1	...	...	4	2	52	...	2	9	...	4	3	...	12	5	17
						Died per 1,000 of the Average Strength.															
For the ten years ...	5,329	31	5·8	111	20·83	·19	...	...	·75	·38	9·76	...	·38	1·69	...	·75	·56	...	2·25	·93	3·19

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	1	...	...	...	...	...	1	...	...	2	·4	50·00
Smallpox	2	2	6	7	...	...	1	...	...	...	...	...	18	3·4	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	9	4	16	25	21	18	18	9	31	30	20	18	222	41·6	1·61
Fevers, Remittent and Continued	...	4	5	2	5	1	3	3	2	2	...	...	27	5·1	
Apoplexy	...	...	...	...	...	4	...	...	...	...	1	...	5	·9	80·00
Dysentery	9	11	8	15	13	9	21	39	30	25	15	20	215	40·3	18·44
Diarrhœa	1	1	8	7	7	8	6	11	10	4	3	1	67	12·6	
Hepatitis	...	...	...	...	...	...	...	...	1	...	...	1	2	·4	...
Spleen Disease ...	1	...	...	5	1	2	1	1	4	1	1	1	18	3·4	11·11
Respiratory Diseases ...	4	4	5	6	1	5	8	2	2	3	5	5	50	9·4	18·00
Phthisis Pulmonalis ...	...	1	1	1	4	...	1	...	...	...	...	...	8	1·5	50·00
Dropsy	...	...	1	...	...	...	...	...	...	1	1	1	4	·7	75·00
Atrophy and Anæmia ...	...	...	2	...	2	1	5	2	1	3	...	1	17	3·2	70·59
Scurvy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism	1	2	3	3	4	1	2	...	4	2	3	2	27	5·1	
Venereal Diseases	2	3	1	1	2	3	1	1	...	...	2	2	18	3·4	
Eye Diseases	1	2	2	1	2	2	2	3	3	6	2	...	26	4·9	0·25
Abscess and Ulcer ...	10	6	19	11	10	7	12	11	7	7	3	9	112	21·0	
Wounds and Accidents ...	8	6	6	7	7	11	9	3	4	7	10	4	82	15·4	
All other Causes	7	6	11	7	2	6	3	7	10	13	6	9	87	16·3	4%
	5	52	94	99	81	78	93	92	112	105	72	74	1,007		
	Admitted per 1,000 of the Average Strength in each Month.														
	10·1	9·8	17·8	18·7	15·2	14·5	17·3	17·4	20·9	19·5	13·6	14·2	189·0		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—TYPICAL JAILS.

XLIII.

AGGREGATE of the SICKNESS and MORTALITY of the JAIL at GORUCKPORE during the TEN YEARS from 1867 to 1876.

[A Jail of the Eastern Sub-division consistently unhealthy throughout the period.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	6,581	200	30·4	26	3·95	...	...	...	1	...	16	...	1	2	...	...	1	...	3	1	1
February	6,655	213	32·0	30	4·51	...	...	...	2	...	16	1	...	5	...	1	1	...	2	...	2
March	6,645	205	30·9	18	2·71	1	...	...	3	...	11	...	1	...	...	...	...	...	2	...	...
April	6,456	238	36·9	34	5·27	...	2	...	5	...	18	...	1	2	...	3	...	...	3	...	...
May	6,377	208	32·6	26	4·08	...	...	...	4	...	13	1	...	...	...	1	...	...	6	...	1
June	6,211	188	30·3	15	2·42	...	1	...	...	...	8	...	2	...	1	1	...	...	...	...	2
July	6,391	251	39·3	59	9·23	34	...	...	1	...	14	...	1	3	1	1	...	...	4	...	...
August	6,607	324	49·0	63	9·54	6	1	...	1	...	36	1	6	6	...	1	1	...	1	...	3
September	6,795	339	49·9	119	17·51	17	...	...	1	...	83	1	2	4	2	1	...	...	3	...	5
October	6,893	340	49·3	70	10·15	3	...	...	...	...	54	...	1	7	...	...	1	...	3	...	1
November	6,751	279	41·3	90	13·33	11	...	...	3	...	59	...	2	1	...	2	1	...	6	1	4
December	6,573	247	37·6	57	8·67	...	...	...	...	...	45	1	1	3	...	...	1	...	5	...	1
						72	4	...	21	...	373	5	18	33	4	11	6	...	38	2	20
						Died per 1,000 of the Average Strength.															
For the ten years ...	6,578	253	38·5	607	92·28	10·95	·61	...	3·19	...	56·70	·76	2·74	5·02	·61	1·67	·91	...	5·78	·30	3·04

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	3	...	...	...	69	13	28	5	18	1	137	20·8	52·55
Smallpox	7	3	14	19	18	7	1	1	...	...	1	8	79	12·0	5·06
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	103	96	137	159	142	137	213	301	321	319	188	114	2,230	339·0	} ·90
Fevers, Remittent and Continued	7	5	3	25	12	1	4	7	9	6	11	4	94	14·3	}
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery	43	47	92	77	63	61	200	350	264	200	185	130	1,672	254·2	} 13·51
Diarrhœa	37	29	51	117	61	56	108	160	151	124	114	71	1,088	165·4	} 71·43
Hepatitis	...	2	...	1	...	1	...	1	1	...	...	1	7	1·1	21·60
Spleen Disease ...	5	7	2	5	8	3	7	8	10	6	7	5	73	11·1	16·42
Respiratory Diseases ...	18	15	16	14	13	17	24	23	15	24	8	14	201	30·6	78·57
Phthisis Pulmonalis ...	...	1	1	3	2	1	2	1	1	...	2	...	14	2·1	75·00
Dropsy	2	1	...	...	...	2	...	...	...	2	...	1	8	1·2	21·47
Atrophy and Anæmia ...	22	4	9	15	22	14	10	18	12	16	11	24	177	26·9	...
Scurvy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheumatism	14	4	10	18	14	16	12	14	16	12	13	6	149	22·6	} 1·24
Venereal Diseases ...	5	10	9	9	11	7	8	9	8	14	6	6	102	15·5	
Eye Diseases ...	10	3	1	4	11	4	4	11	10	4	8	2	72	10·9	
Abscess and Ulcer ...	64	69	77	72	77	57	89	67	62	62	56	43	795	120·9	
Wounds and Accidents ...	26	38	52	47	26	61	45	32	47	39	22	16	451	68·6	
All other Causes	47	42	51	57	44	34	46	37	46	34	52	33	523	79·5	
	420	376	528	642	527	479	842	1,009	1,001	867	702	479	7,872		
	Admitted per 1,000 of the Average Strength in each Month.														
	63·8	56·5	79·5	99·4	82·6	77·1	131·7	152·7	147·3	125·8	104·0	72·9	1196·7		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—TYPICAL JAILS.

XLIV.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY of the AGRA DISTRICT JAIL during the TEN YEARS from 1867 to 1876.

[A Jail of the Western Sub-division consistently healthy throughout the period.]

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	4,536	61	13·4	10	2·20	...	...	...	...	...	4	...	...	3	...	1	...	...	1	1	...
February	4,615	69	15·0	8	1·73	...	...	...	...	...	1	...	...	3	...	...	...	...	1	...	3
March	4,557	69	13·2	6	1·32	...	...	...	...	...	1	...	...	3	...	...	...	...	...	...	...
April	4,476	77	17·2	6	1·34	...	1	...	...	...	1	...	...	3	...	...	...	...	...	...	1
May	4,608	67	14·5	10	2·17	...	...	...	...	1	2	...	...	6	...	...	...	...	...	...	1
June	4,689	72	15·4	14	2·99	...	...	...	...	3	6	...	...	4	...	1	...	...	...	...	...
July	4,716	65	13·8	5	1·06	...	...	...	...	...	3	...	...	2	...	1	...	...	...	1	...
August	4,699	106	22·6	18	3·87	5	...	...	...	...	10	...	...	2	...	...	...	...	...	...	...
September	4,726	111	23·5	11	2·33	...	...	...	...	...	9	...	...	1	...	1	...	...	...	...	1
October	4,594	97	21·5	11	2·44	...	...	...	...	1	8	...	...	1	...	...	...	...	...	...	...
November	4,540	73	16·1	11	2·43	...	...	...	...	...	9	...	1	1	...	...	...	...	...	...	...
December	4,554	76	16·7	13	2·85	...	...	...	...	1	4	...	...	7	...	1	...	...	...	...	...
						5	1	...	...	6	57	...	1	39	...	4	...	...	2	2	6
						Died per 1,000 of the Average Strength.															
For the ten years ...	4,600	78	17·0	123	26·73	1·09	·22	...	...	1·30	12·39	...	·22	8·48	...	·87	...	...	·43	·43	1·30

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	...	...	...	7	1	...	...	...	8	1·8	62·50
Smallpox ...	...	...	...	1	1	...	...	...	...	...	...	...	2	·4	50·00
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Fever, Intermittent ...	30	37	34	84	80	54	74	143	152	100	54	46	888	193·0	.....
Fevers, Remittent and Continued	...	...	...	1	1	1	...	...	...	...	...	...	3	·7	.....
Apoplexy	...	...	...	...	4	14	...	...	...	1	...	...	19	4·1	31·58
Dysentery	18	19	17	24	13	22	36	73	70	50	26	36	404	87·8	9·86
Diarrhœa	3	1	1	17	9	21	29	61	18	14	4	5	174	37·8	.....
Hepatitis	...	...	...	...	...	1	...	...	1	...	...	...	2	·4	.....
Spleen Disease ...	1	...	...	2	...	...	...	1	1	...	1	1	7	1·5	14·29
Respiratory Diseases ...	15	20	28	24	19	18	12	7	8	22	20	28	221	48·0	17·65
Phthisis Pulmonalis ...	1	...	1	1	3	1	1	1	...	1	...	1	11	2·4	36·36
Dropsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Atrophy and Anæmia ...	3	1	...	...	2	1	...	...	1	...	1	...	9	2·0	22·23
Scurvy	...	...	...	...	1	...	...	1	...	...	...	...	2	·4	.....
Rheumatism ...	1	3	1	...	...	...	2	2	3	6	1	2	21	4·6	
Venereal Diseases ...	2	5	...	1	5	...	2	3	4	6	2	7	37	8·0	
Eye Diseases ...	2	...	4	3	3	3	2	6	2	3	...	...	28	6·1	·75
Abscess and Ulcer ...	45	52	51	55	29	53	60	60	43	40	41	46	585	127·2	
Wounds and Accidents ...	13	20	11	23	15	20	15	15	12	12	21	16	193	42·0	
All other Causes	11	12	22	19	11	16	15	24	15	23	14	17	199	43·3	
	145	170	170	255	206	225	239	404	331	278	185	205	2,813		
	Admitted per 1,000 of the Average Strength in each Month.														
	32·0	36·8	37·5	57·0	44·7	48·0	50·7	86·0	70·0	61·7	40·7	45·0	611·5		

ADMINISTRATION OF THE NORTH-WESTERN PROVINCES—TYPICAL JAILS.

XLV.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY of the MEERUT DISTRICT JAIL from 1868 to 1876.

[A Jail of the Western Sub-division unhealthy in every year of the period, occupied in July 1868.]

MONTHS.	Aggregate of the Average Strength of each Month, 1868 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	3,335	153	45·6	31	9·24	...	...	...	1	...	11	...	...	15	...	...	...	...	1	...	3
February	3,258	129	39·6	19	5·83	...	...	...	1	...	8	...	...	4	...	...	1	...	3	...	2
March	3,352	100	29·8	5	1·49	...	...	...	...	...	2	...	...	2	...	...	...	...	1	...	...
April	3,536	95	26·9	7	1·98	...	...	...	1	...	2	...	...	3	...	...	1	...	...	...	...
May	3,528	100	28·3	12	3·40	...	...	...	1	...	5	...	...	5	...	...	...	...	2	...	1
June	3,557	98	27·5	7	1·97	...	...	...	...	...	5	...	...	2	...	...	...	...	...	...	...
July	3,696	129	35·7	12	3·08	...	...	...	1	...	6	...	...	3	...	...	...	...	1	1	...
August	3,882	284	73·2	19	4·89	...	...	...	2	...	10	...	...	2	...	4	...	...	...	...	1
September	3,782	298	78·8	24	6·35	...	...	...	4	...	14	...	...	3	...	1	...	...	1	...	2
October	3,720	271	72·7	41	10·20	...	...	...	3	...	31	...	1	2	...	...	...	...	4	...	...
November	3,762	236	62·7	58	15·42	...	...	...	5	...	42	...	...	9	...	1	...	...	...	...	1
December	3,838	193	50·3	39	10·16	...	...	...	1	...	31	...	...	6	...	...	...	...	...	...	1
						...	...	...	20	...	165	...	1	56	...	5	2	...	13	1	11
						Died per 1,000 of the Average Strength.															
For eight and a half years ...	3,623	175	48·3	274	75·63	...	...	...	5·52	...	45·54	...	·28	15·45	...	1·38	·55	...	3·59	·28	3·04

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the period.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	...	...	...	1	...	...	...	...	1	·3	.....
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Fever, Intermittent ...	92	52	58	76	183	136	309	769	688	491	278	152	3,229	891·3	} 60
Fevers, Remittent and Continued	...	7	4	3	5	4	10	28	30	28	6	3	128	35·3	}
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
Dysentery	51	27	12	16	19	26	40	103	130	136	147	108	815	225·0	} 17·65
Diarrhœa	11	7	1	10	8	7	14	22	15	7	6	12	120	33·1	}
Hepatitis	...	...	1	...	...	...	...	...	1	...	1	...	3	·8	.....
Spleen Disease ...	2	...	...	...	3	1	...	...	1	3	2	...	12	3·3	8·33
Respiratory Diseases ...	38	26	19	16	19	10	18	6	7	11	26	26	223	61·3	25·23
Phthisis Pulmonalis ...	...	...	...	2	...	1	1	...	...	2	...	...	6	1·7	83·33
Dropsy	1	...	...	1	...	...	...	...	...	...	...	...	2	·5	100·00
Atrophy and Anæmia ...	6	13	9	11	6	4	9	3	8	10	10	10	99	27·3	13·13
Scurvy	...	...	...	...	...	...	...	...	...	...	1	1	2	·5	.....
Rheumatism ...	2	5	6	6	6	5	5	1	6	7	6	7	62	17·1	}
Venereal Diseases ...	5	3	4	6	10	5	6	1	3	3	2	3	51	14·1	}
Eye Diseases	3	2	6	10	8	7	7	4	4	4	3	5	63	17·4	} 1·27
Abscess and Ulcer ...	56	59	60	67	51	55	52	22	30	28	29	36	545	150·4	}
Wounds and Accidents ...	4	3	2	3	19	7	13	3	3	3	...	4	64	17·7	}
All other Causes ...	13	13	15	11	13	21	9	13	15	13	8	13	157	43·3	}
	284	217	197	238	350	289	493	976	941	691	535	380	5,581		
	Admitted per 1,000 of the Average Strength in each Month.														
	84·6	65·6	58·8	67·3	99·2	81·3	136·5	251·4	248·8	185·3	139·6	99·0	1540·4		

ADMINISTRATION OF THE CENTRAL PROVINCES—CENTRAL JAILS.

XLVI.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at NAGPORE during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	8,291	389	46·9	22	2·65	...	...	...	2	...	12	...	...	4	...	...	...	1	2	...	1
February	8,296	327	39·7	20	2·43	...	...	...	1	...	10	...	...	2	1	2	1	1	1	...	1
March	8,252	305	37·1	8	·97	...	...	...	1	...	3	...	1	3	...	...	...	...	...	...	...
April	8,230	289	35·1	15	1·82	...	...	...	3	...	2	...	...	5	1	...	...	1	1	2	...
May	8,304	275	33·1	13	1·57	2	...	...	1	1	3	...	...	6	...	...	...	...	...	...	...
June	8,296	278	33·5	7	·84	...	...	...	...	1	1	...	...	1	2	...	...	...	1	...	1
July	8,231	296	36·0	15	1·82	1	...	...	1	...	7	...	...	1	...	...	...	...	...	...	5
August	8,150	367	45·3	24	2·96	...	...	...	1	...	9	1	...	4	...	...	...	1	2	1	5
September	8,028	489	60·9	43	5·36	1	...	...	1	...	20	...	...	3	1	...	...	6	3	2	6
October	8,136	523	64·4	43	5·30	...	...	...	4	...	18	1	1	6	1	...	1	4	2	...	5
November	8,090	446	55·1	29	3·58	...	...	...	2	1	15	...	1	2	1	...	...	2	5	...	...
December	8,168	373	45·7	29	3·55	...	...	...	4	...	11	...	...	5	1	...	...	2	1	1	4
						4	...	...	21	3	111	2	3	42	8	2	2	18	18	6	28
						Died per 1,000 of the Average Strength.															
For the ten years ...	8,195	363	44·3	268	32·70	·49	...	...	2·56	·37	13·54	·24	·37	5·13	·97	·24	·24	2·20	2·20	·73	3·42

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total Admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundredcases treated.
Cholera	...	1	1	...	2	3	1	1	1	...	...	...	10	1·2	40·00
Smallpox	...	...	1	...	...	...	...	...	...	...	...	...	1	·1	...
Enteric Fever (1872—76) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Fever, Intermittent ...	398	296	262	312	281	228	341	450	900	895	725	698	5,586	681·6	
Fevers, Remittent and Continued	1	...	1	2	...	...	1	...	1	...	1	1	8	1·0	·28
Apoplexy	...	...	...	...	2	1	...	...	...	...	1	...	4	·5	75·00
Dysentery	31	27	18	17	16	15	38	111	71	40	52	11	447	54·5	
Diarrhœa	60	30	26	32	55	35	68	108	68	45	41	45	621	76·1	10·36
Hepatitis	...	2	1	...	1	...	1	...	1	1	1	1	9	1·1	22·22
Spleen Disease ...	2	1	4	3	4	1	2	3	2	6	8	4	40	4·9	7·50
Respiratory Diseases ...	40	18	30	36	23	15	59	33	27	36	36	35	349	42·6	12·03
Phthisis Pulmonalis ...	1	1	...	...	...	...	...	...	...	...	...	...	2	·2	100·00
Dropsy	...	...	1	...	...	...	...	...	1	...	1	1	4	·5	50·00
Atrophy and Anæmia ...	8	...	2	3	4	5	2	8	10	12	10	3	67	8·2	26·87
Scurvy	1	6	20	1	...	3	15	23	59	34	10	18	190	23·2	9·47
Rheumatism	26	23	13	21	38	35	30	39	29	24	43	22	343	41·9	
Venereal Diseases ...	16	16	23	5	13	20	7	6	17	6	6	10	145	17·7	
Eye Diseases	8	4	5	8	4	4	5	5	14	21	7	6	93	11·4	
Abscess and Ulcer ...	173	143	195	153	191	215	209	183	154	183	149	127	2,057	251·0	1·07
Wounds and Accidents ...	52	36	38	27	41	33	35	35	38	31	22	20	410	50·0	
All other Causes ...	90	81	77	70	66	56	64	96	73	72	71	60	888	108·4	
	907	688	728	691	741	669	830	1,101	1,466	1,410	1,175	871	11,277		
	Admitted per 1,000 of the Average Strength in each Month.														
	109·4	83·4	88·4	84·0	89·2	80·6	100·8	135·8	182·6	173·7	145·2	106·6	1370·1		

ADMINISTRATION OF THE CENTRAL PROVINCES—CENTRAL JAILS.

XLVII.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at JUBBULPORE during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	7,257	341	47·0	41	5·65	...	...	...	2 2	1	12	...	...	4	1	...	1	...	3	...	7
February	7,190	307	41·0	21	2·80	...	...	...	1 2	...	8	...	...	5	...	...	...	1	5	...	...
March	7,418	279	37·6	20	2·70	...	...	...	3 2	...	8	...	...	6	...	...	1	...	2	...	2
April	7,412	252	34·0	22	2·97	...	...	...	3	...	11	...	...	4	...	...	1	...	2	...	1
May	7,481	264	35·3	19	2·54	2	...	...	7	...	5	...	...	2	...	...	...	...	1	...	1
June	7,612	254	33·4	13	1·71	1	...	...	1	2	4	...	...	2	...	...	...	...	1	...	2
July	7,801	285	36·5	27	3·46	7	...	...	...	...	9	...	...	3	...	...	...	...	4	...	4
August	7,761	319	41·1	33	4·25	2	...	...	...	...	21	2	...	3	...	...	...	...	5	...	...
September	7,779	360	46·3	33	4·24	...	...	...	...	...	25	1	...	2	...	1	1	...	1	...	2
October	7,901	396	49·7	60	7·53	2	...	1	4	...	33	...	...	3	...	...	...	...	5	1	12
November	7,921	442	55·8	59	7·45	...	...	...	...	...	33	...	...	8	1	1	1	...	7	1	7
December	7,932	469	51·6	48	6·05	...	...	...	...	...	31	...	...	6	1	...	1	...	6	...	3
						14	...	1	22	3	210	3	...	48	3	2	6	1	41	2	40
						Died per 1,000 of the Average Strength.															
For the ten years ...	7,652	326	42·6	396	51·75	1·83	...	·13	2·88	·39	27·44	·39	...	6·27	·39	·26	·79	·13	5·36	·26	5·23

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	2	1	13	2	...	2	...	...	20	2·6	70·00
Smallpox	...	...	...	...	...	...	...	...	...	...	1	...	1	·1	...
Enteric Fever (1872—76) ...	...	...	...	...	...	...	...	...	...	2	...	...	2	·3	50·00
Fever, Intermittent ...	201	217	189	186	195	196	179	208	255	350	297	210	2,633	344·1	·80
Fevers, Remittent and Continued	6	20	23	19	23	9	3	1	9	1	9	5	128	16·7	
Apoplexy	1	...	...	...	4	2	1	...	...	...	...	...	8	1·0	37·50
Dysentery	115	86	109	88	90	132	213	272	169	141	173	183	1,771	231·5	9·32
Diarrhœa	40	40	31	23	31	57	67	56	39	31	19	20	435	56·9	
Hepatitis	...	...	...	...	...	1	...	2	1	...	...	...	4	·5	75·00
Spleen Disease ...	3	3	...	...	...	1	...	1	...	3	...	3	14	1·8	...
Respiratory Diseases ...	58	75	51	67	58	38	54	47	37	63	66	66	680	88·9	7·06
Phthisis Pulmonalis ...	...	...	1	...	...	...	...	...	1	...	2	...	4	·5	50·00
Dropsy	2	...	...	...	1	...	...	1	...	1	1	1	7	·9	85·71
Atrophy and Anæmia ...	8	12	8	2	6	4	3	3	1	8	19	15	89	11·6	46·07
Scurvy	1	...	...	...	...	...	1	...	1	...	1	...	4	·5	25·00
Rheumatism ...	18	14	16	20	23	19	10	13	7	7	13	21	181	23·7	
Venereal Diseases ...	3	5	4	6	8	9	11	6	3	3	5	9	72	9·4	
Eye Diseases ...	2	1	8	13	11	5	9	4	6	12	10	3	84	11·0	2·34
Abscess and Ulcer ...	86	75	91	60	100	91	121	104	155	155	99	67	1,204	157·4	
Wounds and Accidents ...	9	6	9	12	12	10	14	5	4	4	5	7	97	12·7	
All other Causes ...	22	24	27	22	28	25	27	24	20	24	21	24	288	37·6	
	575	578	567	518	592	550	726	749	689	807	741	634	7,726		
	Admitted per 1,000 of the Average Strength in each Month.														
	79·2	77·2	76·4	69·9	79·1	72·3	93·9	96·5	88·6	101·3	93·5	79·9	1009·7		

ADMINISTRATION OF THE CENTRAL PROVINCES—CENTRAL JAILS.

XLVIII.

AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at RAIPORE during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	3,797	206	54·3	9	2·37	...	...	...	...	...	5	...	...	1	...	...	...	...	...	...	1
February	3,811	185	48·5	12	3·15	...	...	...	...	...	4	...	...	...	...	1	...	...	...	...	...
March	3,838	175	45·6	15	3·91	...	...	...	...	...	6	...	...	2	...	...	...	...	...	...	...
April	3,849	175	45·5	8	2·08	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...
May	3,865	167	43·2	5	1·29	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
June	3,911	151	38·6	5	1·28	1	...	...	...	...	3	...	...	...	...	...	...	...	...	...	1
July	4,030	164	40·6	8	1·98	...	...	...	...	...	3	...	...	...	...	...	...	...	2	...	3
August	4,125	233	56·5	22	5·33	3	...	...	3	...	10	...	...	...	...	1	...	...	2	...	3
September	4,035	277	68·1	29	7·13	...	...	...	6	...	16	...	...	...	...	2	...	...	2	...	2
October	4,057	328	80·8	24	5·92	...	...	...	3	...	13	...	...	1	...	1	1	1	2	...	...
November	4,065	339	83·4	24	5·90	...	...	...	3	...	8	1	...	2	...	1	...	1	2	...	3
December	3,876	279	69·7	17	4·39	...	...	...	...	...	10	...	...	...	...	2	...	1	2	...	2
						4	...	...	23	...	80	1	...	6	...	14	1	3	28	1	17
						Died per 1,000 of the Average Strength.															
For the ten years ...	3,942	223	56·6	178	45·15	1·02	...	...	5·84	...	20·30	·25	...	1·52	...	3·55	·25	·76	7·10	·25	4·31

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	...	1	...	7	...	...	...	...	8	2·0	50·00
Smallpox ...	1	...	3	...	1	1	...	...	...	...	...	...	6	1·5	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	105	108	123	107	132	136	149	206	252	388	309	200	2,215	561·9	
Fevers, Remittent and Continued ...	4	7	8	3	3	3	10	8	9	20	14	7	96	24·4	1·00
Apoplexy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ...	15	13	8	6	6	13	20	60	39	20	17	11	228	57·8	
Diarrhœa	31	14	25	30	34	24	70	153	92	58	43	36	580	147·1	9·90
Hepatitis ...	...	...	...	...	...	...	...	...	1	...	1	...	2	·5	50·00
Spleen Disease ...	1	...	...	1	1	1	1	3	...	4	1	1	14	3·6	...
Respiratory Diseases ...	9	6	13	9	6	3	8	4	3	8	6	5	80	20·8	7·50
Phthisis Pulmonalis ...	3	...	2	...	1	1	1	2	3	3	1	1	18	4·6	77·78
Dropsy	...	...	...	...	...	...	1	...	...	...	...	...	1	·3	100·00
Atrophy and Anæmia ...	9	11	8	8	10	4	8	6	15	13	31	13	136	34·5	20·59
Scurvy	...	1	1	1	...	...	...	...	...	4	9	3	19	4·8	15·79
Rheumatism ...	21	11	27	16	22	18	17	10	23	21	19	14	218	55·3	
Venereal Diseases ...	4	2	4	8	8	8	9	3	5	7	4	6	68	17·3	
Eye Diseases	4	6	4	16	13	7	7	11	5	9	7	4	93	35·6	
Abscess and Ulcer ...	67	64	53	59	72	88	78	75	64	79	75	59	833	211·3	·37
Wounds and Accidents ...	20	25	31	23	17	10	28	21	25	11	12	29	252	63·2	
All other Causes ...	49	43	63	51	52	43	24	64	38	49	47	55	598	151·7	
	345	311	373	336	373	361	451	603	573	691	596	444	5,265		
	Admitted per 1,000 of the Average Strength in each Month.														
	90·3	81·6	97·2	87·8	97·8	92·3	111·6	145·2	141·9	171·1	146·6	114·6	138·4		

ADMINISTRATION OF THE PUNJAB—CENTRAL JAIL, LAHORE.

XLIX.

TABLE showing the AGGREGATE of the SICKNESS and MORTALITY of the CENTRAL JAIL at LAHORE during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	21,835	817	37·4	135	6·18	...	...	...	14	...	30	1	1	66	...	2	1	...	...	20
February	21,695	696	32·1	75	3·46	...	1	...	19	...	13	...	1	28	...	2	...	...	...	11
March	21,473	526	24·5	50	2·33	...	...	...	11	...	10	...	1	22	...	3	...	...	...	3
April	21,595	543	25·1	33	1·53	...	...	...	8	...	10	...	...	11	...	...	1	...	...	3
May	21,637	576	26·6	43	1·99	...	1	...	9	...	8	...	...	14	...	2	...	...	1	8
June	21,480	609	28·4	41	1·91	...	...	...	9	3	3	...	...	14	1	4	...	...	1	6
July	21,459	555	25·9	20	·93	...	...	...	5	2	6	...	...	4	1	2	...	...	...	1
August	21,481	887	41·3	59	2·75	20	...	...	17	...	5	...	...	7	...	6	...	...	2	2
September	21,891	1,158	52·9	83	3·79	14	...	...	26	...	20	...	1	11	1	4	...	1	...	5
October	21,925	1,315	60·0	98	4·47	2	...	...	40	...	25	...	2	18	...	5	1	1	1	3
November	22,073	1,238	56·1	102	4·62	...	...	...	28	...	37	...	...	29	...	5	...	...	...	3
December	22,010	823	37·4	137	6·22	...	...	...	13	...	45	1	...	65	...	1	...	...	1	11
						36	2	...	199	5	211	2	6	280	3	36	3	1	3	4	76
						Died per 1,000 of the Average Strength.														
For the ten years ...	21,713	812	37·4	870	40·35	1·66	·09	...	9·17	·23	9·72	·09	·28	13·31	·14	1·66	·14	·04	·14	·18	3·50

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	...	47	24	2	...	...	73	3·4	49·32
Smallpox ...	...	1	...	1	...	1	...	...	...	...	...	...	3	·1	66·67
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	808	484	493	569	702	729	801	2,455	2,778	2,888	2,044	1,081	15,742	725·0	1·23
Fevers, Remittent and Continued	8	23	32	25	34	43	21	34	58	51	18	26	383	17·6	17·24
Apoplexy	...	...	...	...	...	21	7	1	...	...	...	...	29	1·3	9·67
Dysentery	117	66	64	69	72	81	65	82	164	235	205	184	1,464	67·4	50·00
Diarrhœa	41	29	69	59	45	35	31	80	108	121	65	53	718	33·1	2·00
Hepatitis	1	...	...	...	...	1	...	...	...	...	...	...	4	·2	1·83
Spleen Disease ...	22	20	16	27	22	26	16	17	37	64	42	21	330	15·2	20·00
Respiratory Diseases ...	204	162	102	80	86	61	39	44	68	91	146	269	1,345	62·5	32·94
Phthisis Pulmonalis ...	4	2	4	4	6	6	10	5	11	4	9	3	68	3·1	20·00
Dropsy	...	...	1	1	1	1	2	1	1	1	3	3	15	·7	6·00
Atrophy and Anæmia ...	6	3	...	1	2	3	8	8	6	3	3	7	50	2·3	8·33
Scurvy	1	1	...	2	1	1	1	2	1	1	1	...	12	·6	
Rheumatism	22	22	29	17	21	27	25	23	17	23	18	28	253	12·1	
Venereal Diseases ...	34	26	39	44	51	49	34	32	28	24	30	25	416	19·2	
Eye Diseases	16	12	15	38	31	26	28	23	21	12	8	17	247	11·4	1·20
Abscess and Ulcer ...	102	110	118	111	133	136	191	198	184	131	95	74	1,583	72·9	
Wounds and Accidents ...	25	21	17	30	31	33	44	37	30	20	21	14	323	14·9	
All other Causes ...	121	118	109	130	158	132	112	81	80	107	82	110	1,340	61·7	
	1,622	1,110	1,050	1,199	1,396	1,415	1,435	3,120	3,616	3,738	2,850	1,917	24,508		
	Admitted per 1,000 of the Average Strength in each Month.														
	74·3	51·2	50·8	55·5	64·5	65·9	66·9	145·2	165·2	170·5	129·1	87·1	1128·7		

ADMINISTRATION OF THE PUNJAB—FEMALE JAIL, LAHORE.

L.

AGGREGATE of the SICKNESS and MORTALITY of the FEMALE JAIL at LAHORE during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths.														
						Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	1,732	97	56·0	7	4·04	...	...	...	1	...	5	...	...	...	...	...	...	...	1	...	...
February	1,709	77	45·1	8	4·68	...	...	...	1	...	6	...	...	1	...	...	...	...	...	...	...
March	1,699	66	38·8	6	3·53	...	...	...	2	...	2	...	...	1	...	...	...	...	...	...	...
April	1,746	71	40·7	3	1·72	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...
May	1,761	87	49·4	6	3·41	...	...	...	3	...	1	...	...	...	...	1	1	...	...	...	...
June	1,782	96	53·9	2	1·12	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
July	1,739	102	58·7	14	8·05	8	...	...	...	1	3	...	...	...	...	1	...	...	...	...	1
August	1,691	141	83·4	11	6·50	2	...	...	2	1	6	...	...	...	...	...	...	...	...	...	...
September	1,606	183	111·2	19	11·54	1	...	...	6	...	6	...	...	2	...	2	...	...	...	...	2
October	1,717	151	87·9	21	12·23	2	...	...	6	...	12	...	1	...	...	2	...	...	...	...	...
November	1,723	133	77·2	22	12·77	...	...	2	4	...	8	1	...	2	...	...	...	1	1	...	3
December	1,704	102	59·8	13	7·63	...	...	1	3	...	6	...	...	2	...	...	...	1	...	...	...
						13	...	3	30	2	59	1	1	8	...	4	3	...	2	...	6
						Died per 1,000 of the Average Strength.															
For the ten years ...	1,721	109	63·3	132	76·70	7·56	...	1·74	17·43	1·16	34·28	·58	·58	4·65	...	2·33	1·74	...	1·16	...	3·49

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month.												Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Cholera	...	...	...	...	...	...	11	2	3	...	...	...	16	9·3	81·25
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....
Enteric Fever	1	...	...	...	...	...	...	...	...	...	3	2	6	3·5	50·00
Fever, Intermittent ...	102	80	62	119	132	181	218	352	470	384	291	144	2,335	1473·0	} 1·12
Fevers, Remittent and Continued ...	2	9	4	7	11	13	15	24	21	22	10	3	144	83·7	}
Apoplexy	...	...	...	...	...	...	1	1	...	...	...	...	2	1·1	100·00
Dysentery	10	6	3	6	5	7	6	17	13	13	14	13	113	65·7	} 18·73
Diarrhœa	15	14	15	10	9	12	13	34	25	26	17	12	202	117·4	}
Hepatitis	1	1	1	1	...	...	...	1	...	1	1	1	8	4·7	12·50
Spleen Disease ...	12	6	4	8	12	11	12	15	19	16	14	9	138	80·2	·72
Respiratory Diseases ...	6	6	3	1	1	3	2	3	5	4	5	11	50	29·0	16·00
Phthisis Pulmonalis ...	...	...	...	2	...	...	1	...	2	...	...	1	6	3·5	66·67
Dropsy	...	...	...	1	...	...	...	...	...	...	2	...	3	1·7	100·00
Atrophy and Anæmia ...	5	1	1	3	1	1	1	5	...	...	3	4	25	14·5	8·00
Scurvy	...	...	1	1	...	2	...	...	2	...	1	2	9	5·2	.....
Rheumatism	2	...	1	1	1	3	...	...	6	3	1	...	20	11·6	}
Venereal Diseases ...	5	3	1	2	1	3	...	4	3	1	...	3	26	15·1	}
Eye Diseases ...	5	2	8	36	53	35	25	31	32	7	3	5	242	140·6	} ·78
Abscess and Ulcer ...	11	16	20	15	14	30	40	24	13	11	8	11	213	123·8	}
Wounds and Accidents ...	2	1	1	1	1	2	4	2	3	...	...	...	17	9·9	}
All other Causes ...	20	20	26	34	24	32	18	23	14	11	21	10	253	147·0	}
	120	165	151	248	265	335	369	538	634	499	304	231	4,028		
	Admitted per 1,000 of the Average Strength in each Month.														
	114·9	96·5	88·9	142·0	150·5	188·0	212·2	318·2	385·2	290·6	228·7	135·6	2340·5		

ADMINISTRATION OF THE PUNJAB—RAWALPINDI JAIL.

LI.

AGGREGATE of the SICKNESS and MORTALITY in the JAIL at RAWALPINDI during the TEN YEARS from 1867 to 1876.

[A Jail which in several years of the period has suffered from outbreaks of Contagious Fever.]

MONTHS.	Aggregate of the Average Strength in each Month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Contagious Fever.	Other Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	9,416	417	44·3	59	6·27	...	...	...	25	...	...	10	1	2	14	...	1	...	1	1	1	3
February	9,256	522	56·4	85	9·18	...	...	...	58	...	...	6	...	...	16	...	...	...	...	3	...	3
March	9,130	573	62·8	108	11·83	...	1	...	84	2	1	2	...	...	9	...	2	...	...	3	...	4
April	8,997	500	56·1	46	5·16	...	...	...	27	11	...	3	...	1	3	...	...	...	...	1	...	...
May	8,815	286	32·4	33	3·74	25	...	...	11	12	...	2	1	...	2	...	...	...	...	...	...	...
June	9,050	201	22·3	22	2·44	...	...	...	4	5	3	1	...	...	2	...	2	...	...	1	...	3
July	9,166	184	20·1	11	1·20	...	...	...	...	3	1	1	...	...	4	...	1	...	...	...	...	1
August	9,253	280	30·3	11	1·19	2	...	...	1	3	...	2	...	...	2	...	...	...	...	...	...	1
September	9,289	406	43·7	39	3·23	...	...	...	1	6	1	12	2	...	1	...	2	...	...	...	4	2
October	9,598	533	55·5	45	4·69	...	...	...	13	8	...	10	1	2	4	...	...	...	...	1	1	5
November	9,585	595	62·1	54	5·63	...	...	...	37	9	1	12	...	...	8	...	...	...	...	2	...	5
December	9,414	448	47·6	49	5·21	...	...	...	17	6	...	10	...	...	12	...	...	...	...	2	...	2
						9	1	...	258	64	7	71	5	5	77	...	8	...	1	13	6	28
						Died per 1,000 of the Average Strength.																
For the ten years ...	9,240	412	44·6	553	59·85	·97	·11	...	27·92	6·93	·76	7·68	·54	·54	8·33	...	·87	...	·11	1·41	·65	3·03

CAUSES OF ADMISSIONS.	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	13	1	...	2	...	...	...	...	16	1·7	56·25
Smallpox	2	...	1	...	...	1	...	...	...	...	...	...	4	·4	25·00
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	379	276	262	283	281	252	356	849	1,171	1,129	705	426	6,369	689·3	·96
Fevers, Remittent and Continued	4	10	73	60	28	6	12	18	16	26	14	6	273	29·6	
Contagious Fevers ...	173	554	722	280	101	57	17	1	...	315	151	87	2,458	266·0	10·50
Apoplexy	...	...	...	1	2	4	3	...	1	...	1	...	12	1·3	58·33
Dysentery	19	21	15	24	23	29	26	59	59	61	78	46	442	47·8	6·74
Diarrhœa	32	29	26	42	41	24	82	96	60	55	88	37	612	66·2	
Hepatitis	2	...	1	...	1	...	...	2	2	1	1	...	9	1·0	55·56
Spleen Disease	8	5	2	3	3	3	4	5	5	11	12	9	70	7·6	7·14
Respiratory Diseases ...	104	85	52	24	12	36	22	9	9	29	71	106	559	60·5	13·77
Phthisis Pulmonalis ...	...	2	2	...	3	4	3	2	...	...	...	2	18	2·0	44·44
Dropsy	2	...	...	...	...	...	...	...	2	...	...	...	4	·4	...
Atrophy and Anæmia ...	16	5	13	4	10	5	11	3	6	12	13	16	114	12·3	11·40
Scurvy	2	...	...	...	...	1	...	6	1	...	4	1	15	1·6	6·67
Rheumatism	18	11	11	11	10	5	7	4	7	10	8	11	113	12·2	
Venereal Diseases ...	21	7	7	12	4	4	4	3	3	3	4	8	80	8·7	
Eye Diseases	4	4	6	10	9	9	6	10	8	6	6	5	83	9·0	1·20
Abscess and Ulcer ...	96	59	60	50	40	52	70	71	70	67	59	81	774	83·8	
Wounds and Accidents ...	15	12	12	10	19	14	23	14	26	15	17	16	193	20·9	
All other Causes ...	44	39	36	42	39	48	59	55	37	31	60	54	544	58·9	
	940	1,119	1,301	856	639	546	705	1,199	1,483	1,771	1,292	911	12,762		
	Admitted per 1,000 of the Average Strength in each Month.														
	99·8	120·9	142·5	96·1	72·5	60·5	76·9	129·6	159·7	184·5	134·8	96·8	1381·2		

ADMINISTRATION OF THE PUNJAB—WORKING GANGS.

LII.

AGGREGATE of the SICKNESS and MORTALITY among the WORKING GANGS at the GHUGGER and at RUPAR during the TEN YEARS from 1867 to 1876.

MONTHS.	Aggregate of the Average Strength of each month, 1867 to 1876.	Average Number Daily Sick.	Number Daily Sick per 1,000 of Strength.	Number of Deaths.	Died per 1,000 of Strength.	Causes of Deaths. Cholera.	Smallpox.	Enteric Fever.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.
January	7,477	309	41·3	34	4·55	...	...	...	10	...	11	...	...	8	...	...	...	...	1	...	4
February	7,573	264	34·9	26	3·44	...	...	...	6	...	2	1	...	10	...	...	...	...	1	1	4
March	8,184	309	37·8	18	2·20	...	...	...	7	1	1	...	...	8	...	...	...	...	...	1	...
April	8,269	525	58·6	16	1·79	...	...	...	4	...	5	...	...	2	...	1	...	...	...	1	2
May	9,618	652	67·8	26	2·70	1	...	...	6	3	4	...	...	6	...	...	...	...	...	2	4
June	9,626	700	72·7	22	2·29	...	...	...	4	3	1	...	...	2	...	...	...	...	...	2	5
July	9,611	551	57·3	12	1·25	...	...	...	4	...	2	...	...	4	...	...	...	...	...	1	1
August	9,356	942	100·7	19	2·03	1	...	...	6	...	9	...	...	...	...	...	...	...	...	1	2
September	9,148	971	106·1	57	6·23	5	...	...	17	...	19	...	...	5	...	2	1	...	3	3	6
October	9,216	1,009	109·5	44	4·77	...	...	...	19	...	20	...	...	...	...	...	...	...	1	1	3
November	9,031	802	88·8	60	6·64	...	...	...	24	...	20	...	...	7	...	1	...	...	...	5	3
December	8,807	466	52·4	49	6·63	...	...	...	10	...	33	...	...	8	...	1	...	...	...	2	6
						7	...	...	117	7	127	1	...	65	...	5	1	...	3	21	50
						Died per 1,000 of the Average Strength.															
For the ten years ...	8,801	625	70·3	393	44·29	·79	...	...	13·16	·79	14·28	·11	...	7·31	...	·56	·11	...	·34	2·36	4·39

CAUSES OF ADMISSIONS	Number of Admissions into Hospital in each Month. Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total admitted during the ten years.	Admitted per 1,000 of Strength.	Died out of each hundred cases treated.
Cholera	...	...	...	...	1	...	...	11	4	...	...	...	16	1·8	43·75
Smallpox	1	1	...	...	...	...	...	1	...	...	...	2	5	·6	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever, Intermittent ...	489	336	492	836	1,082	1,002	837	1,965	2,129	1,899	1,275	912	13,254	1488·5	} ·79
Fevers, Remittent and Continued	109	61	41	40	89	47	57	110	343	402	152	42	1,493	167·9	}
Apoplexy	...	...	1	...	7	9	...	...	...	...	...	...	17	1·9	41·18
Dysentery	58	32	53	103	116	76	53	129	105	71	79	91	986	108·6	} 5·14
Diarrhœa	104	82	92	129	141	125	133	160	167	138	118	112	1,504	169·2	}
Hepatitis	1	...	...	1	2	2	1	...	...	...	...	...	7	·8	14·29
Spleen Disease ...	5	5	6	5	8	6	3	1	6	5	6	6	62	7·0	...
Respiratory Diseases ...	56	17	30	24	51	54	31	35	28	14	26	59	425	47·8	15·29
Phthisis Pulmonalis ...	...	1	...	1	...	...	...	1	...	2	1	1	7	·8	71·43
Dropsy	6	3	8	7	5	4	5	6	2	1	...	3	50	5·6	2·00
Atrophy and Anæmia ...	11	45	3	14	9	8	12	1	9	3	1	7	123	13·8	2·44
Scurvy	1	...	...	...	...	1	...	...	...	1	1	1	5	·6	...
Rheumatism	21	20	20	27	49	36	28	32	9	22	13	25	293	33·0	}
Venereal Diseases ...	11	5	11	13	14	17	9	12	9	13	6	12	132	14·8	
Eye Diseases	6	10	19	23	33	30	20	44	28	13	11	4	241	27·1	
Abscess and Ulcer ...	166	187	257	429	487	439	305	307	188	185	176	231	3,417	384·3	1·02
Wounds and Accidents ...	42	52	74	86	109	98	78	58	56	68	61	50	863	97·1	
All other Causes ...	64	69	68	76	116	140	91	104	72	40	54	62	956	107·5	}
	1,151	926	1,175	1,794	2,344	2,094	1,723	2,977	3,155	2,877	1,980	1,629	23,816		
	Admitted per 1,000 of the Average Strength in each Month.														
	153·9	122·3	143·6	200·2	243·7	217·5	179·3	318·2	344·9	312·2	219·2	182·1	2678·7		

ADMINISTRATIONS OF THE CENTRAL PROVINCES AND PUNJAB, 1867—76.

LIII.

COMPARATIVE STATEMENT showing the RATIOS of SICKNESS and MORTALITY, on the average of the ten years 1867—76, in the CENTRAL JAILS and JAILS of SPECIAL CHARACTERISTICS included under the ADMINISTRATIONS of the CENTRAL PROVINCES and PUNJAB (Tables XLVI—LII).

	RATIO PER 1,000 OF STRENGTH.						
	Central Provinces.			Punjab.			
	Nagpore.	Jubbulpore.	Raipore.	Lahore Central.	Lahore Female.	Rawalpindi.	Rupar.
1.—Daily Sick-rate of each Month.							
January	46·9	47·0	54·3	37·4	56·0	44·3	41·3
February	39·7	41·0	48·5	32·1	45·1	56·4	34·9
March	37·1	37·6	45·6	24·5	38·8	62·8	37·8
April	35·1	34·9	45·5	23·1	40·7	56·1	58·6
May	33·1	35·3	43·2	26·6	49·4	32·4	67·8
June	33·5	33·4	38·6	28·4	53·9	22·3	72·7
July	36·0	36·5	40·6	25·9	48·7	20·1	57·3
August	45·3	41·1	56·5	41·3	83·4	30·3	100·7
September	60·9	46·3	68·1	52·9	111·2	43·7	108·1
October	61·4	49·7	80·8	60·0	87·9	55·5	109·5
November	55·1	55·8	83·4	56·1	77·2	62·1	88·8
December	45·7	51·6	69·7	37·4	59·8	47·6	52·4
Annual Daily Sick-rate	44·3	42·6	56·6	37·4	63·3	44·6	70·3
2.—Admission-rate of each Month.							
January	109·4	79·2	90·3	74·3	114·9	99·8	133·9
February	83·4	77·2	81·6	54·2	96·5	120·9	122·3
March	88·4	76·4	97·2	59·8	88·9	142·5	143·6
April	84·0	69·9	87·8	55·5	142·9	96·1	200·2
May	89·2	79·1	97·8	64·5	156·5	72·5	243·7
June	80·6	72·3	92·3	65·9	188·9	60·5	217·5
July	106·8	93·9	111·6	66·9	212·2	76·9	179·3
August	135·8	96·5	146·2	145·2	318·2	120·6	318·2
September	182·6	88·6	141·0	165·2	385·2	159·7	344·9
October	173·7	101·3	171·1	170·5	290·6	184·5	312·2
November	145·2	93·5	146·6	129·1	228·7	134·8	219·2
December	106·6	79·9	114·6	87·1	135·6	96·8	182·1
Annual Admission-rate	1,376·1	1,009·7	1,386·4	1,128·7	2,340·5	1,381·2	2,678·7
3.—Composition of the Annual Admission-rate.							
Cholera	1·2	2·6	2·0	3·4	9·3	1·7	1·8
Fevers	682·6	361·1	586·3	742·6	1050·2	984·9	1650·4
Apoplexy	·5	1·0	...	1·3	1·1	1·3	1·9
Dysentery and Diarrhœa	190·6	288·4	204·9	100·5	183·1	114·0	277·8
Hepatitis	1·1	·5	·5	·2	4·7	1·0	·8
Spleen Disease	4·9	1·8	3·6	15·3	80·2	7·6	7·0
Respiratory Diseases	42·6	88·9	20·3	66·5	20·0	60·5	47·8
Phthisis Pulmonalis	·2	·5	4·6	3·1	3·5	2·9	·8
Dropsy	·5	·9	·3	·7	1·7	·4	5·6
Atrophy and Anæmia	8·2	11·6	31·5	2·3	14·5	12·3	13·8
Scurvy	23·2	·5	4·8	·6	5·2	1·6	·6
Rheumatism	41·9	23·7	55·3	12·1	11·6	12·2	33·0
Eye Diseases	11·4	11·9	23·6	11·4	19·6	9·0	27·1
Abscess and Ulcer	251·0	157·4	211·3	72·9	123·8	83·8	384·3
Wounds and Accidents	50·9	12·7	63·9	14·9	9·9	20·9	97·1
All other Causes	126·2	47·1	170·5	81·0	162·1	68·9	122·9
Annual Admission-rate	1376·1	1009·7	1386·4	1128·7	2340·5	1381·2	2678·7
4.—Composition of the Annual Death-rate.							
Cholera	·49	1·83	1·02	1·06	7·56	·97	·79
Fevers	2·56	3·01	5·84	9·17	19·17	34·85	13·16
Apoplexy	·37	·39	...	·23	1·16	·76	·79
Dysentery and Diarrhœa	13·54	27·44	20·30	9·72	34·28	7·68	14·28
Hepatitis	·24	·39	·25	·09	·58	·54	·11
Spleen Disease	·37	...	...	·28	·58	·54	...
Respiratory Diseases	5·13	6·27	1·52	13·31	4·65	8·33	7·31
Heart Diseases	·97	·39	...	·14	...	...	...
Phthisis Pulmonalis	·24	·26	3·55	1·66	2·33	·87	·56
Dropsy	·24	·79	·25	·14	1·74	...	·11
Atrophy and Anæmia	2·20	5·36	7·10	·14	1·16	1·41	·34
All other Causes	5·62	5·36	5·07	3·63	2·49	3·25	4·39
Violent Deaths	·73	·26	·25	·18	...	·65	2·36
Annual Death-rate	32·70	51·75	45·15	40·35	76·70	59·85	44·29

CHOLERA of the JAILS of BENGAL and the DEATHS from the CHIEF CAUSES of MORTALITY in EACH JAIL of the PRESIDENCY from 1867 to 1876.

STATISTICS OF JAIL ADMINISTRATIONS, 1867—76.

LIV.

TABLE showing the ADMISSIONS from CHOLERA in each MONTH in the JAILS of the BENGAL PRESIDENCY during the TEN YEARS from 1867 to 1876.

JAILS.	Aggregate Strength, 1867-76.	Number of Admissions in each Month of the ten years.												Total admitted during the ten years.	Total Deaths.	Death-rate per 1,000 of Strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Alipore Central ...	24,243	16	30	117	58	30	40	42	16	14	7	21	15	426	129	4·35
Presidency Natives (1871—76) ...	5,708	...	1	13	1	2	2	14	...	1	4	...	1	39	20	3·50
Eastern and Northern Bengal.																
Baraset	2,276	...	...	2	...	1	...	...	1	...	...	...	1	5	2	·88
Jessore	5,522	...	1	4	3	2	2	...	1	6	2	9	2	32	9	1·63
Kishnaghur	3,545	1	...	4	4	3	...	...	1	...	1	6	...	20	3	·85
Moorshedabad	2,857	...	3	31	29	4	2	56	7	2	2	3	2	141	44	14·88
Howrah (9 years)	705	...	1	...	...	...	...	...	...	1	...	1	...	3	2	2·84
Serampore	353	3	...	4	...	1	...	...	2	...	...	1	...	11	3	8·50
Hooghly	5,256	8	1	21	19	11	13	...	...	113	11	4	5	208	85	16·17
Burdwan	3,089	...	...	1	13	28	...	...	2	...	...	...	...	44	20	6·47
Maldah	744	...	5	2	12	4	2	2	...	...	...	1	10	38	11	14·78
Purneah	3,273	..	...	1	4	62	...	1	...	...	...	...	...	68	45	13·75
Julpaigari (1870-76)	783	...	...	...	...	40	2	1	...	10	1	2	2	58	44	56·19
Darjeeling	589	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinagepore	4,556	...	...	4	11	2	1	5	4	1	...	...	1	29	5	1·10
Rungpore	3,896	1	...	3	4	54	...	1	1	...	1	...	...	65	23	5·92
Rajshahai	6,088	...	...	10	91	21	6	...	1	...	2	9	3	143	71	10·62
Bogra	1,439	...	...	1	22	4	...	...	...	...	...	14	2	43	21	14·59
Mymensingh	4,066	...	1	5	1	2	5	...	4	...	2	1	2	23	9	1·93
Pubnah	1,541	9	...	1	4	1	...	...	...	...	...	3	3	21	15	9·72
Furreedpore	3,672	...	1	...	1	...	...	...	2	...	...	...	...	4	2	·54
Backergunge	4,788	2	1	37	26	29	4	...	...	3	6	43	36	187	91	19·01
Noakhally	2,013	...	...	...	3	1	...	...	...	...	...	5	...	9	3	1·49
Chittagong	2,368	2	...	1	7	3	...	...	...	...	...	1	19	33	10	4·22
Tipperah	2,971	...	...	...	3	5	...	1	...	...	...	...	...	9	3	1·01
Dacca	5,696	1	3	15	2	4	3	3	3	1	4	20	10	69	29	5·09
Assam and Cachar.																
Sylhet	4,014	...	...	...	1	15	...	...	3	...	...	...	...	19	5	1·25
Shillong	430	...	...	...	...	...	...	13	2	1	...	...	...	16	14	32·56
Cachar	1,328	...	...	3	24	4	...	...	...	...	1	4	1	37	22	16·59
Naga Hills (1870—74)	33	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Goalpara	1,133	1	...	1	...	6	10	3	...	...	...	1	2	24	14	12·36
Gauhati	1,350	...	...	...	2	7	7	4	...	1	8	...	...	29	13	9·35
Sibsagar	1,090	...	...	...	...	13	1	...	...	...	...	4	...	18	11	10·09
Nowgong	790	...	...	...	5	7	...	...	...	...	6	1	...	19	10	12·66
Tezpur	1,646	1	...	...	2	7	6	6	2	2	1	...	1	28	12	7·29
Dibrugarh	737	...	...	...	...	1	1	6	1	2	1	...	...	12	8	10·85
South-Western Bengal and Chota Nagpore.																
Cuttack	3,199	2	...	...	2	...	2	48	7	1	...	...	1	63	38	11·91
Pooree	1,061	...	1	...	...	...	3	13	1	...	...	...	...	18	10	9·43
Balasore	1,690	1	...	4	1	...	...	7	...	1	...	...	...	14	7	4·17
Midnapore Central (1875-76) ...	2,028	2	5	7	6	3	4	2	...	...	...	2	...	31	...	...
,, District	7,899	6	7	18	13	4	23	14	3	2	2	4	2	98	27	3·42
Bankoora	3,419	1	...	2	...	5	...	2	...	...	...	1	...	11	7	2·05
Purulia	1,942	1	1	3	5	1	10	8	...	1	...	...	...	30	13	6·69
Raneegunge (9 years)	195	...	...	...	...	...	7	...	...	1	...	...	...	8	4	20·51
Nya Doomka and Deogarh	971	...	...	2	1	...	1	...	...	...	...	...	...	4	2	2·06
Hazaribagh Central	8,332	...	1	26	28	...	5	27	27	1	1	...	...	116	53	6·36
,, District	1,323	...	...	...	...	...	...	38	3	...	...	...	...	41	8	6·05
Ramchee	2,383	1	...	4	3	1	1	38	10	1	...	...	...	59	35	14·94
Chybassa	986	...	...	...	2	1	...	...	8	...	...	...	...	11	7	7·10
Soory	2,614	...	...	2	1	1	3	21	4	2	4	...	...	38	12	4·59
Rajmehal and Pakour	903	...	1	6	18	6	...	...	2	5	...	...	...	38	21	23·26
Behar.																
Monghyr	3,516	...	...	1	3	3	2	25	2	22	1	...	...	59	24	6·82
Bhagalpur Central (1872—76) ...	4,098	...	...	8	3	19	3	30	88	59	18	1	...	230	84	20·50
,, District	3,423	1	2	10	12	5	6	17	22	2	4	7	9	97	29	8·47
Gya	4,252	...	1	7	6	7	6	1	18	18	...	...	...	64	22	5·17
Patna	4,397	1	1	8	42	6	1	17	18	19	13	57	1	184	82	18·69
Dehree	6,553	...	...	2	8	8	8	82	26	36	...	3	2	175	66	10·07
Arrah	3,858	...	1	2	6	9	33	51	4	1	1	...	...	108	35	9·07
Champarun	2,305	...	...	...	2	...	5	30	35	7	...	1	...	80	48	20·82
Mozufferpore	4,482	...	...	3	2	23	23	8	85	13	...	...	...	157	78	17·40
Durbhanga (2 years)	351	...	...	...	...	...	9	...	...	...	...	1	...	10	5	14·25
Chupra	3,244	...	...	2	4	1	3	94	23	3	1	...	...	131	51	15·72
Administration of Bengal ...	195,586	62	89	400	520	477	265	731	449	353	105	231	133	3,806	1,567	8·02
Oudh.																
Gonda	6,652	...	...	1	...	...	...	...	...	...	1	1	...	3	...	...
Bahraich	2,873	...	...	...	...	1	2	2	...	...	...	1	...	6	2	·70
Fyzabad	8,688	...	1	...	2	1	...	...	3	...	65	13	...	85	27	3·11
Sultanpur	4,564	...	1	...	...	...	...	...	...	...	...	...	...	1	1	·22
Rae Bareli	4,961	...	...	...	...	2	2	9	28	...	...	...	...	41	17	3·43
Partabgarh	3,318	...	...	...	...	1	1	...	...	...	...	1	...	3	...	...
Hardoi	2,915	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kheri	2,664	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lucknow Central	17,300	...	...	4	4	3	1	...	1	2	1	...	...	16	3	·17
,, District	9,192	...	...	1	2	1	...	1	3	...	...	4	3	15	4	·44
Sitapur	8,219	...	...	...	1	3	...	...	51	2	...	...	...	57	14	1·70
Nawabgunj	2,647	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unao	2,304	...	...	...	...	...	...	1	10	1	...	...	...	12	4	1·74
Administration of Oudh ...	75,638	...	2	6	9	12	6	13	96	5	67	20	3	239	72	·96

ADMISSIONS from CHOLERA in the JAILS of the BENGAL PRESIDENCY, 1867—76—continued.

JAILS.	Aggregate Strength, 1867—76.	Number of Admissions in each Month of the ten years.												Total admitted during the ten years.	Total Deaths.	Death-rate per 1,000 of Strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Sambalpur	866	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur	3,942	...	...	...	...	...	1	...	7	...	...	...	...	8	4	1·02
Bilaspur	708	...	...	3	2	...	2	11	2	...	...	...	...	20	15	21·19
Mandla	497	...	...	...	...	...	2	...	...	1	...	...	...	3	2	4·02
Seoni	1,232	...	...	...	...	...	2	...	...	...	...	...	...	2	2	1·62
Chhindwara	783	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Betul	777	...	...	1	...	...	...	...	...	...	...	...	...	1	1	1·29
Narsingpur	1,243	...	...	...	...	...	...	1	...	...	...	...	...	1	1	·80
Hoshungabad	2,091	...	...	...	...	1	1	...	...	...	...	...	...	2	2	·96
Nimar	719	...	...	2	...	...	1	...	2	...	...	...	...	5	4	5·56
Nagpur	8,195	...	1	1	...	2	3	1	1	1	...	...	...	10	4	·49
Bhandara	828	...	...	...	...	...	...	22	2	...	...	...	1	25	12	14·49
Wardha	570	...	...	...	...	...	...	...	1	...	...	...	...	1	1	1·75
Chanda	1,005	...	...	...	...	...	...	24	6	...	...	...	...	30	14	13·94
Sironcha	200	...	...	...	...	...	...	...	3	...	...	...	...	3	2	10·00
Jubbulpore	7,052	...	...	...	...	2	1	13	2	...	2	...	...	20	14	1·83
Damoh	698	...	...	...	...	2	...	...	...	...	...	...	...	2	1	1·43
Saugor	2,002	...	...	...	...	...	9	...	1	1	...	...	...	11	4	2·00
ADMINISTRATION OF THE CENTRAL PROVINCES	33,742	...	1	7	2	7	22	72	27	3	2	...	1	144	83	2·46
Ghazipur	6,026	...	...	...	1	...	...	...	...	...	1	...	...	2	1	·16
Benares Central	14,027	...	...	...	...	1	...	6	...	...	...	1	...	8	6	·43
,, District	4,818	...	...	...	...	...	...	...	21	1	...	...	...	22	10	2·08
Mirzapur	2,560	...	...	...	1	...	...	7	5	1	...	...	...	14	5	2·00
Azamgarh	3,960	...	...	...	...	...	...	...	8	...	15	...	...	23	15	3·78
Jaunpur	3,207	...	91	9	4	...	...	...	18	...	5	18	1	123	41	12·78
Gorakhpur	6,518	...	...	3	...	...	...	60	13	28	...	...	...	137	72	10·95
Basti	3,034	...	...	...	...	...	...	...	...	2	...	...	...	2	2	·66
Allahabad Central	19,590	...	...	26	3	...	...	...	...	...	...	...	...	29	16	·82
,, District	7,223	...	...	...	3	...	...	8	15	2	...	...	1	29	14	1·94
Fatehpur	3,318	...	...	...	...	1	...	...	2	...	...	...	...	3	1	·30
Cawnpore	3,810	...	...	1	...	1	...	...	3	...	...	...	...	5	4	1·05
Fatehgurh Central	8,632	...	...	...	...	...	...	...	1	1	...	...	...	2	2	·23
,, District	3,746	...	...	...	...	...	...	...	3	...	...	...	...	3	3	·80
Banda	3,677	...	...	...	1	...	1	...	...	18	2	...	...	22	16	4·35
Hamirpur	2,054	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...
Orai	1,662	...	...	...	...	...	2	...	...	...	...	...	...	2	2	1·20
Jhansi	2,305	...	...	...	...	...	...	...	2	...	...	...	...	2	2	·87
Lalitpur	1,474	...	...	...	1	...	6	1	6	...	...	...	...	14	8	5·43
Etah	2,252	...	...	...	...	...	...	...	...	2	...	...	...	2	1	·43
Etawah	2,712	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mainpuri	3,710	...	...	...	...	...	...	...	...	...	...	...	1	1	1	·27
Aligarh	4,088	...	...	...	...	...	...	...	...	1	...	...	...	1	1	·24
Bulandshahr	1,551	...	...	...	...	...	...	...	5	1	...	...	...	6	3	1·93
Shahjahanpur	2,841	...	...	...	...	1	...	5	18	...	1	...	...	25	8	2·82
Bodaon	3,273	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bareilly Central	13,765	...	...	...	...	...	...	...	8	...	...	...	...	8	6	·43
,, District (1870—76)	4,256	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moradabad	3,473	...	...	...	2	...	...	...	1	2	...	...	...	5	4	1·15
Almorah	1,495	1	...	...	...	...	1	...	1	...	...	...	...	3	1	·67
Dehra	595	...	...	...	4	8	...	2	1	2	...	...	...	17	6	10·08
Bijnor	1,856	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saharunpur	2,545	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Muzaffarnagar	1,259	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut Central	11,490	...	...	...	...	...	...	...	...	26	...	...	...	26	16	1·39
,, District	3,633	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Agra Central	18,567	...	...	1	...	...	...	6	6	4	...	...	...	17	8	·43
,, District	4,600	...	...	...	...	...	...	...	7	1	...	...	...	8	5	1·09
Muttra	1,958	...	...	...	7	...	...	...	...	...	...	...	...	7	2	1·02
ADMINISTRATION OF THE NORTH-WESTERN PROVINCES	192,160	1	91	40	27	12	12	104	146	92	24	19	3	571	282	1·47
Delhi	3,323	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gurgaon (1871—76)	894	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rohtak	1,960	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hissar	2,236	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirsa	2,688	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
Karnal	1,889	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Umballa	6,745	...	...	...	...	...	...	10	5	...	...	...	...	15	6	·89
Rupar	8,891	...	...	...	...	1	...	...	11	4	...	...	...	16	7	·79
Ludhiana	2,469	...	...	...	...	...	...	...	7	...	...	...	...	7	...	...
Jullundur	3,018	...	...	...	...	...	...	...	2	...	...	...	...	2	2	·35
Ferozepore	3,896	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amritsar	5,858	...	...	...	...	...	3	3	12	...	...	...	...	18	10	1·77
Lahore Central	21,713	...	...	...	...	...	...	...	47	24	2	...	...	73	36	1·66
,, Female	1,721	...	...	...	...	...	...	11	2	3	...	...	...	16	13	7·56
Sialkot	3,916	...	...	...	...	...	...	...	...	4	...	...	...	4	4	1·02
Dharmsala	1,337	...	...	...	...	6	6	14	2	1	...	...	...	29	12	8·98
Gurdaspur	2,878	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujranwala	4,705	...	...	...	...	...	...	1	3	6	...	...	...	10	5	1·09
Gujrat	2,796	...	...	...	...	...	...	...	6	...	...	...	...	6	4	1·43
Shahpur	3,111	...	...	...	...	...	1	11	...	...	...	...	...	12	2	·64
Jhelum	2,819	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery	5,180	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan	7,228	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhang	3,467	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
Dera Ghazi Khan	3,815	...	...	...	...	...	...	2	...	...	...	...	...	2	2	·52
Dera Ismail Khan	4,266	...	...	...	...	...	...	...	...	...	1	...	...	1	1	·23
Kohat	1,481	...	...	...	...	...	...	...	...	4	...	1	...	5	4	2·70
Bunnu	1,070	...	...	...	...	...	...	...	...	...	4	...	...	4	2	1·87
Rawal Pindi	9,240	...	...	...	...	13	1	...	2	...	...	...	...	16	9	·97
Peshawar	5,064	...	...	...	...	2	11	...	...	24	5	4	...	46	20	3·95
ADMINISTRATION OF THE PUNJAB	129,933	...	...	...	...	22	22	52	99	71	13	5	...	284	139	1·07
Schore	635	...	...	...	...	1	...	...	...	...	...	...	...	1	1	1·56
Ajmere	3,545	...	...	...	...	2	...	...	7	2	...	...	...	11	3	·85
Nagode (5 years)	459	...	...	...	...	...	...	1	2	...	...	...	...	3	2	4·06
Beaur (5 years)	397	...	...	...	...	32	2	1	2	1	...	...	...	38	10	25·19
JAILS UNDER THE ADMINISTRATION OF POLITICAL OFFICERS	5,048	...	...	...	...	35	2	2	11	3	...	...	...	53	16	3·42
BENGAL PRESIDENCY	631,393	63	183	453	558	565	329	974	819	527	211	275	149	5,097	2,159	3·42

STATISTICS OF JAIL ADMINISTRATIONS, 1867—76.

LV.

TABLE showing the NUMBER of DEATHS in each JAIL of the BENGAL PRESIDENCY, the CAUSES of DEATHS, and the RATIO of DEATHS to STRENGTH, in the TEN-YEAR PERIOD 1867—76.

JAILS.	Aggregate Strength, 1867-76.	Causes of Deaths.														Total Deaths.	Died per 1,000 of the Aggregate Strength.		
		Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.		A Cholera.	B All other Causes.	C All Causes.
Alipore, Central	24,243	120	...	48	8	560	4	4	133	16	155	12	...	59	12	113	1,244	4·95	46·36	51·31
Presidency, Natives (1871-76)	5,708	20	1	9	4	43	...	...	17	4	32	...	...	3	5	11	149	3·50	22·69	26·19
EASTERN AND NORTHERN BENGAL.																				
Barasat	2,276	2	...	26	1	94	...	3	15	...	32	7	1	12	1	9	203	·88	88·31	89·19
Jessore	5,522	9	...	39	3	46	4	8	39	2	8	4	...	5	3	15	185	1·63	31·87	33·50
Kishnaghur	3,545	3	...	11	1	22	1	3	9	3	4	2	...	3	4	7	73	·85	19·74	20·59
Moorshedabad	2,957	44	...	16	1	41	...	2	7	1	7	...	...	4	3	14	140	14·88	32·47	47·35
Howrah (9 years)	705	2	2	1	...	17	...	3	1	...	3	...	...	1	1	1	32	2·84	42·55	45·39
Serampore	353	3	...	...	...	4	...	...	...	...	1	2	...	...	...	...	10	8·50	19·83	28·33
Hooghly	5,256	85	...	20	2	147	2	2	6	...	43	12	...	1	2	6	328	16·17	46·23	62·40
Burdwan	3,089	20	...	17	2	60	2	4	10	1	5	3	...	10	1	27	162	6·47	45·97	52·44
Maldah	744	11	...	2	...	15	1	2	1	...	...	1	...	2	...	3	38	14·78	36·30	51·08
Purneah	3,273	45	...	10	1	63	4	18	9	1	9	14	...	16	3	16	209	13·75	50·11	63·86
Jalpaiguri (7 years)	785	44	...	8	1	88	...	...	7	1	3	3	...	4	1	...	160	56·19	148·15	204·34
Darjeeling	540	...	...	6	...	8	...	...	...	...	...	2	...	1	...	4	21	...	38·89	38·89
Dinagepore	4,556	5	4	29	2	87	1	3	45	...	15	32	...	23	6	17	269	1·10	57·94	59·04
Rungpore	3,886	23	...	23	2	206	2	14	20	3	87	55	...	33	7	21	497	5·92	121·97	127·89
Rajshahai	6,688	71	...	37	6	94	...	9	26	4	17	14	1	35	3	13	329	10·62	37·23	47·85
Bograh	1,439	24	...	10	2	26	...	4	7	1	12	...	...	20	1	3	107	14·59	59·77	74·36
Mymensingh	4,666	9	...	23	2	169	...	2	35	...	37	6	1	15	7	11	257	1·93	43·15	55·08
Pubnah	1,543	15	...	10	...	8	...	3	12	1	1	1	...	...	...	3	54	9·72	25·28	35·00
Furreedpore	3,672	2	1	16	1	15	...	4	8	...	13	3	...	3	1	7	74	·54	19·61	20·15
Backergunge	4,788	91	...	48	5	263	2	5	24	3	13	8	1	4	2	11	480	19·01	81·24	100·25
Noakhálly	2,013	3	...	3	...	10	...	1	3	1	2	2	...	3	2	6	36	1·49	16·39	17·88
Chittagong	2,308	10	...	5	...	16	...	...	23	2	9	7	...	5	1	5	83	4·22	30·83	35·05
Tipperah	2,971	3	1	7	1	15	...	1	7	1	13	4	...	15	...	8	76	1·01	24·57	25·58
Dacca	5,696	29	4	13	3	22	3	9	36	...	25	2	...	5	1	19	171	5·09	24·93	30·02
ASSAM AND CACHAR.																				
Sylhet	4,014	5	1	28	3	61	...	...	9	1	6	10	...	9	5	7	145	1·25	34·87	36·12
Shillong	439	14	...	1	...	9	...	...	4	9	...	2	...	6	1	...	46	32·55	74·42	106·98
Cachar	1,326	22	...	3	1	25	...	...	2	...	1	2	...	5	...	2	63	16·59	30·92	47·51
Naga Hills (4 years)	33	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	30·30	30·30
Goalpara	1,133	14	...	4	2	32	...	...	8	...	3	2	...	11	4	5	85	12·36	62·66	75·02
Gauhatti	1,390	13	...	3	2	66	1	...	12	1	8	3	...	4	...	3	116	9·35	74·10	83·45
Sibsagar	1,690	11	...	5	...	26	...	1	1	1	...	4	...	7	...	1	55	10·09	40·37	50·46
Nowgong	790	10	...	2	...	7	...	...	4	2	1	2	...	3	...	1	32	12·66	27·85	40·51
Terpur	1,646	12	...	6	...	22	...	1	8	...	1	2	...	7	1	5	65	7·29	32·20	39·49
Dibrugarh	737	8	...	...	1	20	...	1	7	2	...	...	...	...	...	2	41	10·85	44·78	55·63
SOUTH-WESTERN BENGAL AND CHOTA NAGPORE.																				
Sambalpur (3 years)	288	...	...	1	...	16	...	...	...	...	...	1	...	...	...	...	18	...	62·50	62·50
Cuttack	3,199	38	7	10	...	49	2	...	7	...	3	4	...	19	...	13	152	11·91	35·74	47·65
Pooree	1,661	10	...	2	...	19	...	...	2	...	4	1	...	2	...	5	45	9·63	32·96	42·61
Balasore	1,680	7	...	2	...	16	1	...	2	...	2	...	...	1	1	4	37	4·17	17·85	22·03
Midnapore, Central (2 years)	2,028	...	...	5	...	61	1	2	14	...	16	3	...	8	1	6	117	...	57·69	57·69
,, District	7,809	27	...	28	...	182	7	1	46	3	40	6	...	28	8	22	398	3·42	46·97	50·39
Bankoora	3,419	7	...	3	2	13	2	...	4	...	8	3	...	6	...	5	53	2·05	13·45	15·50
Purulia	1,942	13	...	8	1	30	...	...	5	...	4	5	...	5	2	3	76	6·69	32·44	39·13
Raneegunge (9 years)	195	4	...	...	...	1	...	...	...	...	1	...	...	...	...	...	6	4·59	35·29	39·79
Soory	2,614	12	1	6	2	33	...	1	9	...	12	2	...	17	1	8	104	23·26	32·14	45·99
Rajmehal and Pakour (9 years)	903	21	...	6	...	11	...	...	...	...	...	1	...	...	1	1	41	2·06	15·45	17·51
Nya Doomka and Deogarh	971	2	...	2	1	6	...	...	2	...	...	2	...	...	1	1	17	6·36	30·48	36·84
Hazaribagh, Central	8,832	53	3	35	5	122	2	3	27	1	...	4	2	26	3	21	307	6·05	27·21	33·26
,, District (6 years)	1,723	8	...	3	...	10	...	...	10	1	...	1	...	6	1	4	44	14·94	29·02	43·96
Ranchee	2,345	35	1	5	1	33	...	1	4	...	1	3	...	11	3	5	103	7·10	47·67	54·77
Chybassa	986	7	...	6	...	31	...	...	4	1	...	2	...	...	1	2	54			
BEHAR.																				
Monghyr	3,516	24	...	8	1	45	...	2	5	...	6	2	...	11	1	8	123	6·82	28·16	34·98
Bhagalpur, Central (5 years)	4,698	81	1	6	2	85	...	1	8	2	13	3	4	4	3	11	227	20·50	34·89	55·39
,, District	3,423	23	...	11	1	87	...	1	7	1	9	4	1	28	2	10	191	8·47	47·33	55·80
Gya	4,252	22	1	14	3	280	1	1	9	2	12	6	3	14	7	14	389	5·17	86·32	91·49
Patna	4,387	82	...	9	3	138	...	1	14	2	13	4	1	7	4	13	291	18·69	47·04	65·33
Dehree	6,553	66	1	12	4	201	1	...	44	...	12	11	4	10	4	17	387	10·07	48·99	59·06
Arrah	3,858	35	1	9	...	68	1	1	14	2	8	3	1	2	1	20	165	9·07	33·70	42·77
Chumparun	2,395	48	2	7	2	111	...	1	9	1	5	14	...	11	2	9	222	20·02	73·49	96·31
Mozufferpore	4,482	78	...	11	1	251	...	5	15	1	7	5	1	31	2	22	430	17·40	78·54	95·94
Durbhunga (2 years)	351	5	...	...	...	13	...	...	1	...	...	...	...	6	...	1	26	14·25	59·82	74·07
Chupra	3,244	51	...	4	...	95	...	2	4	...	2	2	...	4	1	6	171	15·72	36·66	52·71
ADMINISTRATION OF BENGAL	195,386	1,567	32	690	86	4,365	46	130	821	78	744	316	20	501	128	697	10,221	8·02	44·29	52·31
OUDH.																				
Gonda	6,652	...	1	123	2	26	1	3	23	3	5	2	1	23	3	16	232	...	38·33	38·33
Bahraich	2,873	2	1	7	...	14	2	...	11	...	3	1	...	1	...	3	45	·70	14·96	15·66
Fyzabad	8,688	27	2	17	5	174	...	2	16	...	14	3	...	1	2	15	278	3·11	28·89	32·00
Sultanpur	4,564	1	...	11	1	52	...	2	9	1	2	...	...	6	4	6	95	·22	20·63	20·85
Rae Bareli	4,961	17	1	9	2	27	2	...	14	2	11	2	...	4	1	14	106	3·43	17·94	21·37
Partabgarh	3,318	...	...	16	6	18	...	1	9	1	7	1	1	1	1	7	69	...	20·80	20·80
Hardoi	2,915	...	...	1	...	9	1	...	1	...	1	...	...	1	5	7	34	...	11·66	11·66
Kheri	7,064	...	...	1	2	8	...	...	11	...	3	1	...	3	1	6	36	...	17·44	17·44
Lucknow, Central	17,300	3	3	14	6	159	1	...	17	3	84	5	...	44	3	45	358	·17	20·52	20·69
,, District	9,102	4	...	3	5	77	3	1	9	3	30	2	...	27	3	40	207	·44	22·09	22·53
Sitapur	8,219	14	...	9	3	35	2	1	12	...	6	...	...	13	...	17	112	1·70	11·93	13·63
Nawabgunj	2,647	...	...	1	2	20	...	...	3	...	2	...	...	1	6	9	44	...	16·62	16·62
Unao	2,304	4	...	...	2	17	...	1	8	1	3	2	...	1	1	3	43	1·74	16·92	18·66
ADMINISTRATION OF OUDH...	75,038	72	8	212	36	607	12	11	151	14	171	19	2	126	30	188	1,659	·96	21·15	22·11
Sambalpur (7 years)	578	...	...	1	...	7	1	...	3	...	...	...	...	1	1	3	17	...	29·41	29·41
Raipur	3,942	4	...	23	...	80	1	...	6	...	14	1	3	28	1	17	178	1·02	44·13	45·15
Bilaspur	708	15	...	1	...	21	1	...	...	...	...	...	...	5	1	1	45	21·19	42·37	63·56
Mundla	497	2	...	1	...	6	...	...	...	...	...	1	...	...	...	1	11	4·02	18·11	22·13
Seoni	1,232	2	...	5	...	31	...	...	6	...	3	2	...	...	...	5	54	1·62	42·21	43·83
Chhindwara	783	...	...	...	...	9	1	1	2	1	1	...	...	2	...	2	19	...	24·27	24·27
Betul	777	1	...	2	1	1	...	3	2	...	1	...	1	3	1	...	15	1·29	18·01	19·30
Narsingpur	1,243	1	...	4	...	12	...	1	2	1	1	...	...	5	2	3	32	·80	24·94	25·74

MORTALITY in the JAILS of the BENGAL PRESIDENCY from 1867 to 1876.—continued.

JAILS.	Aggregate Strength, 1867-76.	Causes of Deaths.															Total Deaths.	Died per 1,000 of the aggregate strength.		
		Cholera.	Smallpox.	Fevers.	Apoplexy.	Dysentery and Diarrhœa.	Hepatitis.	Spleen Disease.	Respiratory Diseases.	Heart Diseases.	Phthisis Pulmonalis.	Dropsy.	Scurvy.	Atrophy and Anæmia.	Wounds and Accidents.	All other Causes.		A Cholera.	B All other Causes.	C All Causes.
Hoshangabad ...	2,091	2	...	11	1	26	...	...	5	...	1	1	1	6	2	13	69	·96	32·04	33·00
Nimar ...	719	4	...	3	...	6	...	...	1	...	...	1	...	...	...	2	19	5·56	20·87	26·43
Nagpur ...	8,195	4	...	21	3	111	...	3	42	8	12	2	18	18	6	28	268	·49	32·21	32·70
Bhandara ...	828	12	...	7	2	10	...	...	5	...	...	...	...	1	1	3	41	14·49	35·03	49·52
Wardha ...	570	1	...	1	1	2	...	...	1	...	...	...	...	...	1	...	7	1·75	10·53	12·28
Chanda ...	1,005	14	...	8	...	10	...	...	1	1	...	3	...	9	1	...	47	13·93	32·84	46·77
Sironcha ...	200	2	...	...	...	1	...	...	2	...	...	...	...	...	...	...	5	10·00	15·00	25·00
Jubbulpore ...	7,652	14	...	23	3	210	3	...	48	3	2	6	1	41	2	40	393	1·83	49·92	51·75
Damoh ...	698	1	...	1	...	11	1	...	2	...	...	1	...	2	...	5	24	1·43	32·95	34·38
Saugor ...	2,002	4	...	6	1	27	...	2	4	...	2	3	...	2	1	13	65	2·00	30·47	32·47
ADMINISTRATION OF CENTRAL PROVINCES ...	33,742	83	.	118	12	581	12	10	132	14	26	21	24	123	20	136	1,312	2·46	36·42	38·88
Ghazipur, temporary (2 years)	697	...	...	2	...	17	1	...	4	1	1	...	...	...	...	1	27	...	38·74	38·74
Ghazipur ...	5,329	1	...	4	2	52	...	2	9	...	4	3	...	12	5	17	111	·19	20·64	20·83
Benares Central ...	14,027	6	3	51	7	234	2	3	19	2	45	10	...	11	1	28	422	·43	29·65	30·08
,, District ...	4,818	10	...	10	5	64	...	...	9	1	11	...	...	...	2	16	128	2·08	24·49	26·57
Mirzapur ...	2,500	5	1	10	9	60	...	3	11	...	4	1	...	1	3	8	116	2·00	44·80	46·80
Azamgarh ...	3,970	15	3	6	2	60	...	2	7	1	1	2	...	12	5	6	122	3·78	26·95	30·73
Jaunpur ...	3,207	41	2	6	2	82	...	1	15	...	1	1	1	22	...	8	182	12·78	43·97	56·75
Gorakhpur ...	6,578	72	4	21	...	373	5	18	33	4	11	6	...	38	2	20	607	10·95	81·33	92·28
Basti ...	3,034	2	...	6	...	109	...	1	26	2	1	1	...	11	3	13	175	·66	57·62	57·68
Allahabad Central ...	19,590	16	4	32	13	229	1	3	72	3	28	2	...	26	12	93	534	·82	26·44	27·26
,, District ...	7,223	14	2	17	8	84	1	1	27	1	10	...	...	18	5	14	202	1·94	26·03	27·97
Fatehpur ...	3,318	1	...	5	2	56	1	1	15	...	5	3	2	4	1	26	122	·30	36·47	36·77
Cawnpore ...	3,810	4	...	4	1	51	...	5	11	...	15	3	...	14	3	23	132	1·05	33·60	34·65
Fatehgarh Central ...	8,632	2	...	13	3	58	1	...	15	1	8	2	...	7	3	12	125	·23	14·25	14·48
,, District ...	3,746	3	...	10	2	28	...	3	4	1	6	4	...	...	1	14	76	·80	19·49	20·29
Banda ...	3,677	16	...	11	14	104	...	6	48	1	...	5	...	12	4	15	236	4·35	59·83	64·18
Hamirpur ...	2,054	...	...	2	9	41	...	4	11	...	1	...	...	14	2	17	101	...	49·17	49·17
Orai ...	1,662	2	...	7	3	23	1	...	5	1	3	1	...	5	3	7	61	1·20	35·50	36·70
Jhansi ...	2,305	2	...	7	3	27	...	3	14	...	...	2	...	13	2	11	84	·87	35·57	36·44
Lalitpur ...	1,474	8	...	4	1	25	...	1	7	...	3	...	...	5	...	5	59	5·43	34·60	40·03
Etah ...	2,352	1	...	4	1	4	...	...	2	1	1	...	...	1	1	2	18	·43	7·22	7·65
Etawah ...	2,712	...	...	3	1	15	1	3	4	...	5	...	...	2	...	3	37	...	13·64	13·64
Mainpuri ...	3,710	1	1	7	...	13	...	...	12	...	11	...	...	4	6	10	65	·27	17·25	17·52
Aligarh ...	4,088	1	...	15	3	16	...	...	11	1	5	2	...	2	...	10	66	·21	13·82	14·08
Bulandshahr ...	1,551	3	...	16	2	16	...	1	3	...	...	...	...	2	...	4	47	1·93	28·37	30·30
Shahjahanpur ...	2,841	8	...	19	4	38	2	...	15	...	5	3	...	5	4	7	110	2·82	35·90	38·72
Budaon ...	3,273	...	...	5	1	12	...	...	8	...	...	...	...	4	3	2	35	...	10·69	10·69
Bareilly Central ...	13,765	6	...	142	9	195	...	...	87	2	33	4	...	59	...	44	581	·43	41·78	42·21
,, District (7 years) ...	4,256	...	...	18	3	53	...	...	26	...	4	1	...	9	...	13	127	...	29·84	29·84
Moradabad ...	3,473	4	...	8	...	23	...	...	14	1	8	...	...	13	1	6	78	1·15	21·31	22·46
Almorah ...	1,405	1	...	5	...	32	...	1	8	...	1	2	...	...	...	2	52	·67	34·11	34·78
Dehra ...	595	6	...	...	...	6	...	...	...	...	...	...	...	3	1	2	18	10·08	20·17	30·25
Bijnor ...	1,856	...	...	1	...	10	...	...	7	...	...	...	...	4	1	2	25	...	13·47	13·47
Saharunpur ...	2,545	...	...	11	1	50	...	...	17	...	7	...	...	6	4	8	104	...	40·86	40·86
Muzaffarnagar ...	1,299	...	...	10	...	28	...	3	5	2	...	1	...	...	3	1	53	...	40·80	40·80
Meerut Central ...	11,499	16	...	84	7	539	...	...	140	4	42	4	1	65	5	39	946	1·39	80·88	82·27
,, District (9 years) ...	3,623	...	...	20	...	165	...	1	56	...	5	2	...	13	1	11	274	...	75·83	75·83
Agra Central ...	18,567	8	...	14	3	138	7	5	91	6	38	2	4	11	8	57	395	·43	20·84	21·27
,, District ...	4,600	5	1	...	6	57	...	1	39	...	4	...	...	2	2	6	123	1·09	25·64	26·73
Muttra ...	1,958	2	...	3	1	8	...	...	3	2	1	...	...	3	1	5	29	1·02	13·79	14·81
ADMINISTRATION OF N.-W. PROVINCES ...	192,160	282	21	613	128	3,195	23	72	913	38	328	67	8	433	98	586	6,805	1·47	33·91	35·41
Delhi ...	3,323	...	...	40	2	65	...	...	20	1	4	6	...	4	...	19	161	...	48·45	48·45
Gurgaon (6 years) ...	894	...	...	1	1	4	...	...	2	...	...	1	...	...	1	2	12	...	13·42	13·42
Rohtak ...	1,990	...	...	4	2	12	...	...	5	...	...	3	...	...	1	3	30	...	15·08	15·08
Hissar ...	2,236	...	...	17	6	8	...	...	13	1	7	...	...	...	...	4	56	...	25·04	25·04
Sirsa ...	2,688	...	1	5	1	7	1	...	16	...	...	1	...	...	2	3	37	...	13·76	13·76
Karnal ...	1,889	...	...	4	...	12	...	1	18	...	...	...	...	4	...	4	43	...	22·76	22·76
Umballa ...	6,745	6	...	22	2	64	...	...	22	1	2	4	...	17	2	22	160	·89	24·17	25·06
Rupar ...	8,891	7	...	117	7	127	1	...	65	...	5	1	...	3	21	39	393	·79	43·41	44·20
Ludhiana ...	7,400	...	...	14	1	19	...	...	6	1	2	...	...	6	1	5	55	...	12·36	12·36
Jullundur ...	3,618	2	...	3	3	22	...	...	2	1	3	...	1	2	4	10	53	·55	14·10	14·65
Ferozepore ...	3,846	...	...	9	2	12	...	...	12	...	2	...	...	3	2	3	45	...	11·70	11·70
Amritsar ...	5,658	10	...	89	8	70	...	1	52	2	4	2	...	9	7	20	274	1·77	46·66	48·43
Lahore Central ...	21,713	36	2	199	6	211	2	6	269	3	36	3	1	3	4	76	876	1·65	38·69	40·35
,, Female ...	1,721	13	...	33	2	59	1	1	8	...	4	3	...	2	...	6	132	7·56	69·14	76·70
Sialkot ...	3,016	4	...	9	3	9	...	...	5	...	3	2	...	2	2	5	44	1·02	10·22	11·24
Dhartsoala ...	1,337	12	...	4	...	19	...	...	4	...	...	...	...	...	1	3	43	8·98	23·18	32·16
Gurdaspur ...	2,878	...	...	8	4	15	...	...	19	...	3	...	...	9	1	5	64	...	22·24	22·24
Gujranwala ...	4,595	5	...	20	3	39	1	...	20	7	7	3	...	3	1	14	123	1·09	25·68	26·77
Gujrat ...	2,796	4	...	4	2	5	...	1	9	1	...	1	...	1	1	2	31	1·43	9·66	11·09
Shahpur ...	3,111	2	...	9	4	15	...	...	13	...	1	...	...	1	...	5	50	·64	15·43	16·07
Jhelum ...	2,819	...	...	17	1	21	...	...	11	1	...	...	...	6	...	3	60	...	21·28	21·28
Montgomery ...	5,180	...	...	33	4	8	...	2	44	...	...	1	...	1	3	2	98	...	18·92	18·92
Mooltan ...	7,228	...	1	29	7	36	1	2	36	2	10	1	...	4	3	13	205	...	28·36	28·36
Jhang ...	3,467	...	1	5	1	7	2	1	14	1	1	...	...	4	2	5	44	...	12·69	12·6
Dera Ghazi Khan ...	3,818	2	...	16	3	4	...	2	24	1	1	3	...	...	1	11	68	·52	17·28	17·81
Dera Ismail Khan ...	4,266	1	1	14	1	8	1	3	61	2	4	1	...	...	2	12	111	·23	25·79	26·02
Kohat ...	1,481	4	...	5	1	5	1	...	14	...	4	...	...	...	2	3	39	2·70	23·63	26·33
Bannu ...	1,670	2	...	20	4	11	...	...	12	...	2	...	...	1	6	6	64	1·87	37·94	39·81
Rawal Pindi ...	9,240	9	1	322	7	71	5	5	77	...	8	...	1	13	6	28	553	·97	58·88	59·85
Peshawar ...	5,664	20	...	106	1	47	...	...	33	2	1	1	...	10	14	25	260	3·95	47·35	51·34
ADMINISTRATION OF PUNJAB	129,033	139	7	1,183	88	1,012	16	25	986	27	114	37	3	108	90	358	4,193	1·07	31·20	32·27
Sehore ...	685	1	...	6	...	17	...	...	5	...	...	...	...	...	3	4	36	1·46	51·09	52·55
Ajmere ...	3,545	3	...	26	1	38	1	...	24	1	...	1	...	2	2	6	105	·85	28·77	29·62
Nagode (5 years) ...	429	2	...	3	...	11	...	...	2	...	...	...	...	1	1	3	23	4·66	48·95	53·61
Beaur (5 years) ...	397	10	1	2	...	9	...	...	2	...	...	4	...	4	1	...	33	25·19	57·93	83·12
	5,048	16	1	37	1	75	1	...	33	1	...	5	...	7	7	13	197	3·17	35·86	39·03
BENGAL PRESIDENCY ...	631,903	2,119	69	2,853	351	9,835	110	248	3,036	172	1,383	465	57	1,388	373	1,888	24,387	3·42	35·21	38·63

STATISTICS OF JAIL ADMINISTRATIONS, 1867 TO 1876.

LVI.

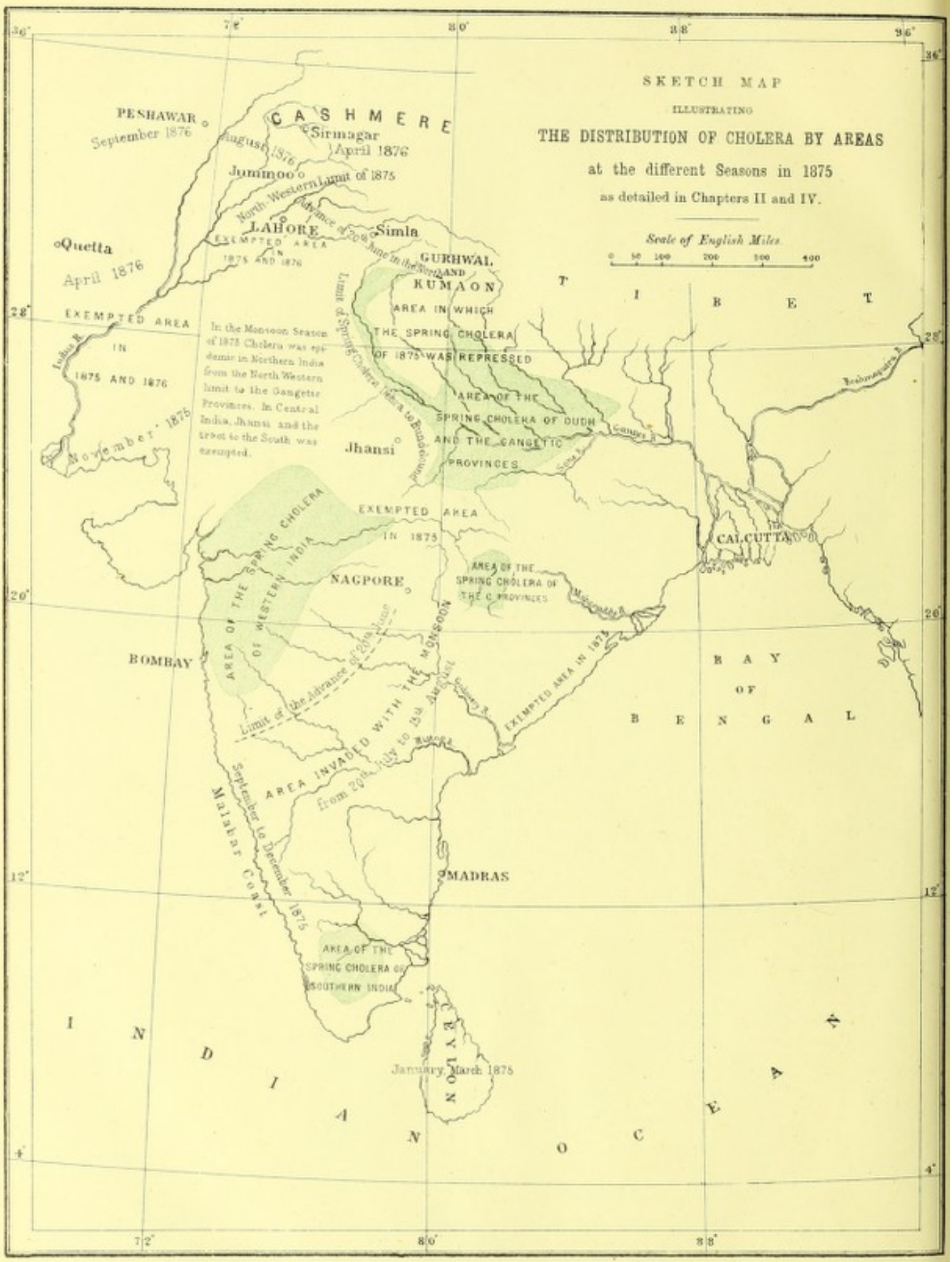
TABLE showing in DETAIL the CAUSES of ADMISSIONS and DEATHS in the JAILS of the BENGAL PRESIDENCY during the TEN YEARS from 1867 to 1876.

Causes of Admissions and Deaths.	Admitted.	Died.
Total admissions of the ten years, 630,538.		
Cholera	5,022	2,156
Smallpox	989	71
Chickenpox	3,250	...
Measles	378	2
Mumps	1,724	6
Diphtheria (?Erysipelatous sorethroat)	106	24
Scarlet fever (?)	1	...
Dengue	1,125	...
Hydrophobia	12	12
Erysipelas	1,127	141
Gangrene and phagedæna	308	117
Pyæmia	9	9
Typhus fever	222	44
Enteric fever	69	28
Intermittent fever	265,841	1,002
Remittent and continued fevers	13,395	1,727
Rheumatism	11,112	36
Gout	4	...
Leprosy	706	83
Elephantiasis	150	1
Scurvy and purpura	2,003	58
Anæmia	2,108	102
Cancrum oris	27	18
General dropsy	1,457	355
Lupus	2	...
Cancer	84	44
Primary syphilis	4,331	1
Secondary syphilis	3,694	46
Phthisis pulmonalis	2,630	1,376
Hæmoptysis	568	
Scrofula and tuberculosis	384	61
Hip-joint disease	2	...
Psoas abscess	7	11
Mesenteric abscess	...	2
Myelitis	2	2
Encephalitis	59	61
Meningitis	69	37
Apoplexy	847	359
Sunstroke		
Paralysis	386	53
Hydatid of brain	...	1
Tetanus	79	59
Epilepsy	873	69
Hysteria	46	...
Chorea	20	...
Paralysis agitans	2	..
Delirium tremens	11	...
Neuralgia	1,485	...
Anæsthesia	5	...
Mania	1,261	21
Dementia	229	5
Melancholia	31	...
Eye diseases	8,172	...
Impaired vision	109	...
Otitis	1,355	6
Disease of mastoid cells	7	
Deafness	11	...
Epistaxis	244	3
Ozæna	114	8
Polypus nasi	3	...
Pericarditis	84	66
Valve disease of heart	138	95
Hypertrophy of heart	48	22
Fatty degeneration of heart	27	33
Rupture of heart and aorta	1	1
Aneurism	19	10
Palpitation	15	...
Embolism	6	5
Syncope	14	2
Angina pectoris	6	1
Phlebitis (?)	68	1
Varicose veins	8	...
Inflammation of lymphatic glands	723	...
Goitre	69	2
Laryngitis	180	40
Bronchitis	10,506	464
Asthma	2,182	118
Pneumonia	6,898	2,204
Gangrene of lungs	11	21
Pleurisy	2,552	174
Tonsillitis	820	4
Stomatitis and aphtha	812	11
Toothache	457	...
Gastritis	161	22
Enteritis	175	189
Peritonitis	168	122
Typhlitis	5	3
Ileus and obstruction of bowels	47	46
Hernia	202	10

Causes of Admissions and Deaths.	Admitted.	Died.
Total deaths of the ten years, 24,409.		
Hæmatemesis	58	11
Melæna	24	7
Dyspepsia	8,519	...
Colic	8,386	12
Constipation	2,799	...
Hæmorrhoids	1,586	...
Fistula in ano	244	2
Stricture of rectum	1	1
Worms	131	1
Tapeworm	149	2
Dysentery	65,156	7,056
Diarrhœa	56,882	2,779
Spleen enlargement	5,070	245
Rupture of spleen	7	13
Hepatitis	630	103
Cirrhosis and degeneration of liver	36	32
Hydatids of liver	1	2
Jaundice	1,639	53
Ascites	297	114
Nephritis and Bright's disease	279	96
Cystitis	89	16
Hæmaturia	100	...
Calculus and lithiasis	83	13
Enuresis	22	...
Diuresis and diabetes	103	6
Stricture of urethra	466	23
Gonorrhœa	1,307	...
Phimosis	576	...
Warts	9	...
Bubo	731	...
Orchitis	1,105	...
Retention of testis	1	...
Fungus testis	1	...
Sloughing of scrotum	6	3
Hydrocele	618	...
Hæmatocele	8	...
Varicocele	3	...
Periostitis	182	4
Caries	75	3
Necrosis	109	5
Synovitis	396	9
Bursal inflammation	23	...
Contraction	19	...
Cramp	2	...
Atrophy of muscle	14	...
Deformity of spine	1	...
Phlegmon and Abscess	30,880	73
Ulcer	24,747	103
Whitlow	1,829	...
Boil	4,437	...
Carbuncle	379	8
Skin diseases	3,521	1
Itch	7,154	...
Guinea-worm	1,313	2
Tumours	219	2
Hare-lip	6	...
Child-birth	491	3
Abortion	89	7
Hæmorrhage	6	...
Metritis and Puerperal fever	22	8
Phlegmasia dolens	15	...
Puerperal mania	2	1
Puerperal convulsions	1	1
Leucorrhœa	22	...
Dysmenorrhœa	33	...
Menorrhagia	116	1
Ovaritis	1	...
Ovarian dropsy	1	...
Prolapse of uterus	9	...
Uterine cancer	1	1
Uterine ulcer	1	...
General debility	6,202	1,317
Poisoning	66	6
Snake-bite	65	14
Burns and scalds	1,002	1
Wounds and contusions	18,555	204
Fracture	2,646	38
Dislocation	247	1
Sprain	736	...
Murder and homicide	2	6
Suicide and suicidal wounds	125	84
Drowning	1	16
Struck by lightning	...	2
Asphyxia	1	2
Footsore	3	...
Punished	1,344	...
Cause not accurately specified	1,494	22

SECTION IV.

THE CHOLERA HISTORY OF 1875 AND 1876; ILLUSTRATING HOW THE AREA OF HINDOSTAN WHEN UNOCCUPIED IS RE-INVADED BY EPIDEMIC CHOLERA.



LITHOGRAPHED FROM AN ORIGINAL SUPPLIED BY THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.

At the Surveyor General's Office, Calcutta, July 1878.

SECTION IV.

THE CHOLERA HISTORY OF 1875 AND 1876, ILLUSTRATING HOW THE AREA OF HINDOSTAN WHEN UNOCCUPIED IS RE-INVADED BY EPIDEMIC CHOLERA.

CHAPTER I.

THE DYING OUT OF CHOLERA OVER HINDOSTAN IN 1873 AND 1874, AND THE MINIMUM REACHED.

The succession of epidemics is in India a recognised fact. The fact should be recognised in countries invaded from India.

The history of cholera in India is written naturally in the record of individual epidemics, which come on in succession at intervals of years. The cholera of one epidemic is not the cholera of the epidemic which succeeds. This is the conclusion to which every careful observer in India has arrived; and in the case of every appearance of cholera beyond the boundaries of Hindostan, it is essential that the local recorder should recognise each successive epidemic as it shows itself in India as a possible origin of the manifestation. All statements which tell of cholera beyond India being prolonged for an indefinite number of years must be weighed with reference to the results of observation in India continued year by year; for no foreign observer is in a position, from his personal experience alone or from local tradition, to form a just estimate of the epidemic relations of a cholera which has sprung up around him. Individual opinions formed from inadequate data cannot be entertained when antagonistic to a universally accepted generalisation based on the widest knowledge of facts; and no one would venture to say that the laws regulating successive manifestations of cholera have been more carefully studied and appreciated in the semi-barbarous countries to which these remarks chiefly refer, than by the large staff of highly educated officers who in this country are ever on the watch for the first traces of a threatened epidemic. The succession of epidemics in India is not caused by the local re-development of a dormant cholera, revived by the recurrence of physical conditions favourable to life and growth. The re-appearance of cholera after several successive seasons of decay or disappearance implies in Northern and Western and Southern India, the movement of a new body of cholera out of Eastern Bengal, progressing on aërial highways, and occupying, in obedience to definite laws, the geographical areas into which the great continent of India is subdivided by natural characteristics. Secondary manifestations, subsequent to the occupation of natural areas, follow also known parallels, and are controlled by the influences proper to the area within which the cholera of invasion finds itself.

The rapid recurrence of epidemics is one of the characteristics of the cholera of our times.

Geography of the successive epidemics of the past eleven years, and its significance in each case.

In the past eleven years five new epidemics have moved on Northern India, namely, the cholera of 1864-65, 1866-67, 1868-69, 1872 and 1875.

Every one of these epidemics has had some distinguishing geographical feature. The first, which desolated the Central Provinces and Western India, was in Northern India a shadow merely. The second, abandoning the route leading to the Central Provinces and Western India, was diverted entirely into Northern India, leaving the area occupied by the epidemic of 1864-65 untouched. The third, pursuing both routes, occupied Central, Western, and Northern India, from the mountains to the Indian Ocean. The epidemic of 1872 covered Northern India and a great part of Western India, and left the eastern districts of the Central Provinces untouched. All of this has been mapped out definitely and clearly. The facts of distribution are absolute, and cannot be set aside. The legitimate deduction seems to be, that the materies of any epidemic is at the disposal of natural meteorological agencies which cause it to play the part which it does in relation to space. Assuming the presence of a body of cholera in the East, we cannot predict its future course. It may occupy the southern epidemic highway alone; it may show itself solely on the northern epidemic highway; or both may be occupied at the same or different dates, during the progress of epidemic invasion. The phenomena of advance on these different routes have been carefully studied in my previous reports.

Decay of cholera throughout 1873 and 1874.

The year 1873 passed over without any indication of renewed invasion; and throughout the year the invading cholera of 1872 was rapidly going to decay. A large proportion of the material of the epidemic of 1872 had also been removed out of the area of Hindostan, as we know by the circumstance that the cholera of that year prevailed simultaneously over Northern India and in distant provinces of Central Asia.

In August 1873, replying to an enquiry from the Government of India as to the chance of our cantonments in Upper India becoming affected by cholera before the close of the year, I made the following remarks:—

"The experience of 1868 and 1870 suggests that cholera will not prevail epidemically in Northern India in 1873. The grounds for this anticipation are these. In each of the two preceding epidemics cholera broke out beyond the frontier of Hindostan, in Caubul and the Caspian Provinces, simultaneously with its epidemic appearance in Northern India. The practical inference we drew from the fact at the time was, that the main body of the cholera had passed over India on its onward course, and that, therefore, localisation and revitalisation in force (or epidemic vigour) was not to be looked for in the year succeeding; a contingency

which is almost certain to occur should the epidemic advance be arrested anywhere in the continent of India."

This deduction, which was again borne out in the epidemic history of 1875 and 1876, as will be subsequently shown, was verified; and the minimum reached in 1873 dwindled in nearly every district of the epidemic area to nothing, so that the registration of cholera deaths in 1874 was, from north to south and from east to west, almost a blank throughout the three Presidencies of India.

The minimum which was reached in 1874.

The Bombay Presidency registered 37 cholera deaths in all.

In Ganjam, which gets its cholera in common with Orissa, 243 deaths were registered. Leaving out this tract, the whole area of the Madras Presidency gave 70 deaths, of which the greater number were probably erroneously returned.

In the Berars two deaths only were returned out of the entire population.

In the Central Provinces two deaths were recorded. I except twelve, which occurred in Sumbulpore, a district associated as regards its cholera with Bengal Proper and Orissa.

The Punjab shows a total of 79 cholera deaths.

Rajpootana reported four deaths only.

Oudh, one of the worst cholera fields in India, had but 68 deaths.

Goruckpore and the districts adjoining suffered from epidemic cholera, and had upwards of 5,000 deaths. But leaving out these, the mortality for the whole of the remaining area of the North-Western Provinces was under 1,100.

The following statement shows how the cholera of 1872 ran down throughout 1873 and 1874 in the epidemic area of India:—

Total deaths from cholera registered among the population of Hindostan in 1872, 1873 and 1874.

Bengal Presidency. (excluding the endemic area.)			Bombay Presidency.			Madras Presidency.		
1872	1873	1874	1872	1873	1874	1872	1873	1874
89,028	19,519	6,558	15,642	284	37	13,215	840	313

Distributed by provincial areas, the phenomenon shows itself even more remarkably. The areas of Bengal gave these results—

	North-Western Provinces. East of 80° E. Long.	North-Western Provinces. West of 80° E. Long.	North-Western Provinces. South of the Jumna.
1872	35,319	13,449	1,797
1873	8,275	5,979	940
1874	953*	462	27

	Oudh.	Central Provinces (excluding Sumbulpore).	Berars.
1872	26,566	1,592	1,578
1873	3,732	35	None
1874	68	2	2†

	Punjab.
1872	8,727
1873	149
1874	78

Many of these deaths we know to be erroneously registered under the head of cholera, a circumstance to be taken into account in estimating the actual minimum reached. Certain districts, in which there is no ground for supposing cholera to be constantly present, have furnished deaths in every month since registration was introduced, and such deaths, which are fortunately very few in number, necessarily blemish any system of statistics which is calculated to show the absolute localisation of cholera to natural areas.

The minimum recognised in every presidency and province of India. Provinces of Bengal.

Leaving then out of consideration these trifling errors, which do not affect the general results, in 1873, the cholera deaths of the Punjab had declined to 149 for the province.

The adjoining districts of the North-Western Provinces showed a similar decrease. Bareilly gave in 1873, 123 deaths; Shahjehanpore 80; Bolundshahr 43; Meerut 53; Mozuffernuggur 5; Saharunpore 45; and Bijnour 63.

In 1874, the Punjab registered 78 deaths, and the same districts of the North-Western Provinces gave 178 deaths in the aggregate.

In geographical continuation towards the east, Oudh afforded 68 deaths in all, out of the entire population of the province.

The tabulated statement above given shows how little even in the Gangetic districts of the North-Western Provinces, the population was affected by cholera in 1874. In the first half of 1874, Goruckpore and Busti, lying towards the hills, had no cholera; five deaths being

* Excluding 5,000 deaths in Goruckpore and Busti. In these districts cholera appeared in September 1874, and in this tract the cholera of 1874 was absolutely localised. None of the adjoining districts suffered; and in the last six months of 1874, the whole of the province of Oudh, immediately to the west, gave only 19 cholera deaths.

† Stated to be erroneously registered.

recorded in the six months. But in the latter six months 5,000 people were carried off in these two districts. This cholera was almost entirely localised. Azimgurh, lying next to Goruckpore, was slightly affected, losing 250; and the Fyzabad district of Oudh, bounding the cholera tract on the west, had 16 deaths in November and December, which I should attribute to a new epidemic distribution of cholera late in 1874. Leaving out these 16 deaths, the province of Oudh had 3 deaths only during the time that the adjoining districts were affected; and Jaunpore immediately to the south had only 2 deaths amongst its population.

In the districts lying between Oudh and the Central Provinces, 52 deaths only appear in the registers of 1874:—

Allahabad	15	Humeerpore	1
Cawnpore	23	Jaloun	2
Futtehpore	4	Jhansi	0
Banda	7	Lullutpore	0

In the Central Provinces the history is the same; 2 deaths appear in the register, as occurring at Nursingpore in June and July.

In the registration of the Berars 2 deaths also appear, which the Sanitary Commissioner did not authenticate after personal enquiry.

Bombay Presidency.

Taking for granted that the deaths of the Bombay Presidency of the first six months of 1873 represent the natural termination of the cholera of 1872, we find a total of 29 deaths remaining, representing the cholera mortality of the last six months of 1873, in the whole Bombay Presidency, of which 20 were registered in Bombay city. Thirty-seven deaths from cholera are said to have occurred in the Bombay Presidency in 1874.

Madras Presidency. Why the cholera of 1872 did not extend.

The Sanitary Commissioner for Madras emphatically repeats the same history of exemption in his report for 1873.

General features of the cholera of 1872, on the southern epidemic tract.

The Bengal cholera, invading in 1872, occupied a certain area only of the Madras Presidency. It did not overpass the same limit in 1873. What cholera did occur in the Madras Presidency was but a locally manifested cholera carried on from 1872. Of a total of 840 cholera deaths registered throughout the Presidency, 497 occurred in the one district of Nellore, and 178 in the districts to the north; leaving, for the whole of the Presidency besides, 165 deaths.

"It would be useless," he says, "to enter into any speculations as to the causes of the arrest of a great epidemic wave. After considering the fact in many aspects, I must confess myself utterly ignorant as to the why and the wherefore of this abortive epidemic movement."

This much we may infer, that if any portion of the epidemic cholera of 1872 of the Central Provinces did reach the Madras Presidency it was but a very trifling offshoot of the great body of cholera which found its true exit in Northern India and towards the Caspian, as shown in my report on the cholera of the year. The phenomenon recalls the epidemic distribution of 1867, when cholera extended from Orissa to Caubul, confined to the northern highway and with a clearly defined southern edge throughout its entire course, which the cholera of the year found it impossible to overleap. It is not behind a limit so shaded off that cholera falls and awaits revitalisation.

On the southern epidemic highway, the cholera of the Central Provinces of 1872, was as nothing when compared with the epidemics of 1860, 1864-65 and 1868-69.

In the earliest of these epidemics the population was decimated; and in 1869, 56,000 persons succumbed to the epidemic. In the epidemic of 1872, which was as truly an invading cholera as that of the former years, we have to show but 1,592 deaths for the same area.

It seems to me that the Madras Presidency was but little affected through the route of the Central Provinces in 1872. Had invasion occurred, the *facies* of the death-table for the Presidency would have been different. As it stands, it is divided naturally into two divisions—the cholera of the north coming down to a definite geographical limit, and the cholera of the south decaying from January and dead in June. Had invasion occurred, a sudden rise over a wide area in July and August would have been apparent, as a third and distinctive feature in the table. And this we do not find.

Looking at the geographical distribution of the epidemic over the area of the Central Provinces, out of the total of 1,592 deaths 1,294 occurred in the Nerbudda districts, and these were associated with the cholera of the Berars, an area suddenly invaded in July 1872, and which gave 1,578 deaths. There can be little doubt that the cholera of Hyderabad, which commenced simultaneously with this cholera of the Berars, was truly associated with it; and this cholera and that of Kurnool in September, October and November, was perhaps all that was due to one common influence affecting in 1872 these tracts of the Madras Presidency and the Central Provinces, the Berars, and the districts reached by cholera in the Bombay Presidency.

All districts north and west of Hyderabad suffered from epidemic cholera in 1872.

The districts to the south, and south-west, excepting Kurnool did not suffer and had no cholera after June 1872, and the inference is, that what they had in the spring of 1872 belonged to the cholera of a previous epidemic.

The east coast districts as far south as Nellore gave, in 1872, a total of 10,174 deaths. This cholera is geographically connected with the cholera of Bengal Proper, and not with that of Central India. It followed the course which a cholera invading northwards into the Gangetic tract pursues; it commenced in spring, it culminated in July and August, and died out in October and November. Grouping this as a distinct body of cholera, which I should be

inclined to associate with that which caused the 267 deaths of August and September of Wardah, in the Godavery district of the Central Provinces, and striking out the deaths from January to June, there remain in Southern India 207 cholera deaths only to be accounted for of the total registered in 1872.

Death of cholera in the Bombay Presidency in March 1873.

While the Madras cholera of 1872 was dying out in March 1873, it was dying out also in Bombay except in Bombay city, which registered 40 deaths from April to December, and which were probably attributed to cholera by error. Not a single death from cholera was registered throughout the Presidency after March in any district south of the Tapti. In the four southern districts in which it survived during the three first months of 1873 the disappearance was simultaneous.

The phenomena of invasion, decay and re-appearance, in the different provinces are perfectly exhibited in the registration tables for the series of years 1873 to 1876, which bear conspicuously on their face the stamp which nature alone can impress.

CHAPTER II.

THE RE-APPEARANCE OF CHOLERA WITHIN THE UNOCCUPIED AREA IN THE SPRING OF 1875.

The cholera of the spring of 1875 did not re-appear over India following human intercourse. How it did appear, and parallel occurrences as illustrative of the phenomena.

Whether human intercourse was the cause of the first appearance of the new epidemic from the Himalayas to Southern India in the spring of 1875, need not be discussed. The local observers are content to admit that it did not appear by any such agency, and local reports only suggest the possible effects of human agency subsequent to the re-appearance of cholera in their districts.

Three propositions may be offered as explanatory of the phenomena of re-appearance—first, that the cholera was disseminated over the unoccupied areas by some generally prevailing agency at the dates on which it showed itself; second, that the material of an epidemic was distributed over the same areas at a season when the miasm was incapable of manifesting itself by the affection of the population; or, third, that the germs of previous epidemics remaining, some unknown influence quickened these germs simultaneously from one extremity of India to the other.

Scientifically considered, these propositions come before us in this shape: Is it consistent with the experience of previous epidemics that cholera may be aërially distributed almost imperceptibly, and that cholera so distributed shall manifest itself at a date on which its appearance in vital manifestation is due? And the alternative remains: Does any occurrence, accurately recorded in epidemic history, give colour to the suggestion, that a cholera which has once died within what we know to be the invaded area in Hindostan, may recover vitality?

No fact with which we are acquainted would suggest that the latter proposition is tenable; while it is consistent with experience, that an epidemic may be thrown over India at a season when the cholera so distributed is incapable of showing itself in the human system. The phenomenon of dormancy and re-vitalisation we are well acquainted with, and the phenomenon of the advance over provinces of a cholera in full epidemic vigour is a fact in epidemic history constantly repeated; but that a population should be living amidst the material of a cholera epidemic which has already made its invasion unperceived and is certain to blaze up in a known week, and in the meantime lies absolutely innocuous, is at first sight a startling assertion.

The occupation of great areas of Hindustan by an epidemic cholera in motion, but unable to show its presence because distributed at a season when it is incapable of manifestation, a fact.

In Northern India scarcely a single epidemic has appeared in the spring which has not been heralded in November and December by the occurrence of individual cases of true cholera in the districts in which manifestation is about to take place subsequent to 20th April. In a previous report I have followed out the phenomenon as it preceded the different invasions from 1855 onwards.* In 1871 the whole area of the Central Provinces, from Orissa to the Berars, registered but nineteen cholera deaths; and yet two cases occurring among prisoners in the last ten days of October impressed me with the belief that the epidemic was in motion, which culminated over Western and Northern India in the spring of 1872 (Report of 1872, page 13). In relation to the Central Provinces, I have had occasion three times already to call attention to the phenomenon, as explaining the fact of the reproduction of cholera in the early spring far to the west, in Nimar and beyond; evidently and recognisably in connection with our cholera of the Gangetic Valley and Northern India, while the intermediate area, known to be free from pre-existing cholera, showed not a case for months and until the date normal for reproduction or invasion came round.

The presumption, then, deduced from observation extending over many epidemics, is, that if distributed at a season which is not the season proper for the appearance of cholera in the province, which we know from all past experience to vary within definite limits, there may be no indications of the presence of such a cholera, or the manifestations may appear in the most sporadic manner and be so trifling as to be altogether overlooked and ignored. And yet not the less is the cholera seed latent over the province ready to affect the population in the week in which it should burst into vitality,—a week as predetermined and fixed for the vitalised manifestation of cholera as the date is fixed for the budding of trees or the flowering of plants.

Several times, since recognising the true import and value of the phenomenon, I have striven, months in advance of the appearance of epidemic cholera under such circumstances, to impress the truth that the epidemic was imminent.

It was not the gravity of any individual outbreak or the occurrence of any series of outbreaks, that led me to anticipate the coming evil. But knowing this, that not a single case of cholera occurs in the invaded area of India which has not its place in an epidemic in progress, I have not hesitated to assume that a sporadic case of cholera may prove the index of an epidemic about to desolate not necessarily the locality where it occurs, but the natural area within which it has shown itself.

And this it was which induced me to attach, what some would have deemed undue importance to a single but undoubted case of cholera, which warned me that movement towards the west was in progress. In the Lullutpore district throughout three years preceding 1874

The first case which gave warning that in the spring of 1875 cholera might appear over Western India.

*Report on the Cholera of 1872, pp. 18 to 20.

two cholera deaths only had been registered, and in the same period two deaths only in the Jhansi district adjoining. At Lullutpore, on the 28th October 1874, a native officer of the 28th Native Infantry was struck down with cholera in the morning, and he died in the afternoon. There was no cholera reported in the district at the time, and none appeared throughout the epidemic of 1875. This solitary case of cholera I consider to have been a true index of movement, and this I represented to the Sanitary Commissioner as soon as I recorded the death. And early in the spring, when the very first symptoms of the re-awakening of cholera showed themselves, I represented to the Quarter Master General of the Army that the material of an epidemic had already been distributed, against which it was necessary to be prepared, seeing that manifestation was certain to occur at the proper date. What, under such conditions, is the geographical area already covered no one but an empiric would profess to say; manifestation alone can declare the course followed and the limit reached.

Dates at which the spring cholera of 1875 was manifested over India.

Leaving out of consideration meantime the debateable points—whether the re-appearance of cholera in the spring of 1875 was due to a new cholera leaving the endemic area at this date, to the local development of a cholera from the same source distributed during the last quarter of 1874, or to a combination of influences which determined that the cholera distributed late in 1874 should be re-distributed as soon as it proved its capacity for epidemic existence, these were the dates at which the spring cholera of 1875 became manifest in the various provinces.

Bombay Presidency. The cholera of April 1875 did not radiate from Nasik.

In the Bombay Presidency, in the month of March, ten deaths from cholera were registered. One death occurred in the town of Nasik between 22nd and 31st March. The man had come from Dwarka, but no cholera was known to exist anywhere in the Presidency at the time when he was attacked. He was suffering from diarrhœa on his arrival, but this may have been only the cause predisposing him to the cholera then about to appear.

This was not the date of the general appearance of cholera in the area within which the spring cholera of the Presidency was destined to be confined. Cholera did not radiate from Nasik. A proper apprehension of the meaning of the wide spread of cholera at a certain date forbids us to entertain any such suggestion. And the illustrations which follow, taking up the fact of the appearance of the same cholera from Dehra Dun to Tanjore in the same week, tell of the operation of a general influence to which the effects of human intercourse are entirely subsidiary.

The Sanitary Commissioner for Bombay remarks: "Taking Nasik as a centre of infection or revival, it would be extremely interesting to trace the course of the disease through the several districts in which it appeared, but the means are not forthcoming. Very excellent reports have been received, but in these there is not the requisite precision as to dates."

From the Sanitary Commissioner's own record given below, the dates seem sufficiently precise. The difficulty is to reconcile these dates with the theory that the cholera radiated from Nasik:—

Ahmedabad.—"Cholera broke out on 30th April at Purantej."
Panch Mahals.—"Cholera broke out on 17th April in the Godhra Rural Circle."
Kaira.—"Cholera broke out on 16th April in the town of Kapadwanj."
Tanna.—"Cholera broke out on the 14th April in Khurdi village of Shaharpur Rural Circle."
Ratnagiri.—"Cholera broke out on 15th April in the Dapuli Rural Circle."
Sholapur.—"Cholera broke out in the town of Barsi on 24th April."
Ahmednagar.—"Cholera broke out on 15th April at Akola."
Khandesh.—"Cholera broke out at Chalisgaon on 16th April."

"In January 1875 there was one death recorded in Bombay City, and in February there was another. With these exceptions, the year commenced without any reported cholera within the limits of the Presidency."

Madras Presidency. The cholera of April was not imported from Ceylon.

The Officiating Sanitary Commissioner for Madras makes the suggestion that the cholera of Southern India of 1875 may have been imported from Ceylon, seeing that cholera first showed itself in 1875 in the southern districts, while apparently the rest of the Presidency remained uninvaded.

Now, it is of essential importance that this statement should be weighed, and the fact viewed in its proper bearings. For such a proposition, if credited, would destroy the harmony of the aspect in which the re-appearance of cholera over India was really exhibited.

To meet the suggestion, we have only to turn to the Sanitary Commissioner's Report for 1873. The one evident deduction from the facts contained in the following quotation is that, above all others, these districts of Southern India have the capability for retaining and localising an invading epidemic.

Speaking of the few deaths, 165 in number, the total recorded in Southern India in 1873, Mr. Cornish says: "These were mostly isolated cases of 'sporadic' cholera occurring in districts where there was no tendency to the diffusion of the pest, such as is observed in the progress of cholera as an epidemic. There is in Southern India an endemic form of cholera which seems to differ from the epidemic variety only in not spreading; and it must be further remembered that the deaths now and then registered as cholera in non-epidemic seasons may really be due to other causes. In what particular respect the endemic cholera of Tanjore and other localities of the south differs from the epidemic variety of the disease is a subject for investigation and report when a sufficient number of facts have been accumulated."

In the first quarter of 1875, 30 cholera deaths only were registered in the entire Presidency of Madras. The deaths of April in the Tinnevelly and Tanjore districts, which furnished 74 out of the 84 cholera deaths of the Presidency, were the true indices of the commencing epidemic.

Cholera broke out in Tinnevelly on 14th April, and in Tanjore on 17th April. Trichinopoly was attacked in May, the cholera commencing on the 18th.

Cholera had been epidemic in the sea-coast districts of Ceylon for three months before, and about 400 deaths had occurred—16 in January, 70 in February, and 281 in March, when this cholera culminated, the numbers in April running down to 102.

The Officiating Sanitary Commissioner writes: "I do not intend to express any opinion upon the origin of the epidemic which began in April 1875." In the next sentence, however, he proceeds to make a very decided theoretical statement: "It is obvious," he says, "that our epidemic of 1875 did not come from the north, but from the south-east;" and the inference he leaves to be drawn is, that the cholera of the Madras Presidency, which cut off nearly 100,000 of the population in 1875, was imported from Ceylon into the districts affected in the spring, having previously been imported from somewhere else into Ceylon.

Ceylon exempted in 1874, as well as the Continent of India.

The Island of Ceylon registered only two cholera deaths from September to December 1874, and eleven in all during the year; in short, Ceylon enjoyed in 1874 the same immunity from cholera as the Continent of India. I have no record to show or suggest where the cholera of Ceylon did come from. Theoretically, when I trace as one and the same phenomenon the re-appearance of cholera from the Himalayas to the extreme south-west of the Bombay Presidency, I look for the extension of the margin of the fan, and I find its extremity in Ceylon, and I associate the appearance of cholera in February and March with the homologous reproduction of cholera in Oudh and the eastern districts of our North-Western Provinces in the same weeks; and the occurrence of the first cholera in Madras on 14th and 17th April cannot be passed over without at least calling attention to the fact that these very days saw the Bombay Presidency covered simultaneously in many districts.

In the face of the picture which I have drawn, I cannot adopt the suggestion unless backed by the actual facts of importation. Nor do I find the statement that, from the districts affected in the spring, cholera spread *gradually* into every district, borne out by the statistical facts. The method of the filling-in of the area mapped out by the spring cholera of 1875, is a subject which cannot be treated in so general a manner, and will again be reverted to in studying the behaviour of the same cholera in Madras during the monsoon season of 1875.

First appearance of cholera in the Berars.

Berars.—"Cholera had been unknown in Berar for two years. The first appearance of the epidemic in 1875 was on the 9th of May in the village of Takli, on the banks of the Poorna, in the Buldana district. During May it appeared in nine villages in the Buldana district, and in 28 in the Akola district. Within the following week or ten days, it had attacked the inhabitants in a number of the neighbouring villages, and it soon became apparent that the epidemic was about to become wide-spread, as not a post came in which did not bring reports of more villages being affected."

Thus Dr. Abbott writes, and he continues:—"In April it was evident to me that cholera would reach us from the west, as by this time it had appeared in many places in the Bombay Presidency, and from newspaper reports I learned that it was marching towards us."

First appearance of cholera in the Central Provinces.

But cholera had already occupied Berhampore and Nimar and Western Malwa, and on the theory of progression by human intercourse, the Sanitary Commissioner might equally have anticipated the invasion of his area from the north.

In Nimar the first appearance of cholera was on 12th April at Dhangaon, and at Mundi on 20th. Khundwah got its first case on 5th May.

Berhampore adjoining, had thirteen deaths between 6th and 18th April.

First appearance of cholera in Western Malwa.

Above the Vindhya, cholera appeared on 8th April, and became epidemic in Indore on 11th and 12th.

Dr. Beaumont of Indore writes, dating 8th May:—"Previous to cholera breaking out among the railway labourers 22 miles from Indore, there was not any evidence of its existence nearer than Nassick, 300 miles distant. It does not seem to have been imported, as the first cases were railway labourers, who had not been away from their work. Now the disease is spreading throughout Malwa."

The Western Malwa Agency registered no death in January, February or March. In April, 159 deaths occurred in four States:—

Jowrah	126 deaths;	first death on	18th April.
Shahjapore . . .	2 „	„	22nd April.
Rutlam	24 „	„	25th April.
Mundesore . . .	7 „	„	26th April.

The Malwa Bheel Agency reports 61 deaths, commencing 27th April, in the Dhar State, near Chiculda, on the Nerbudda; and in four other towns of the Dhar and Jabooa States there was a simultaneous outbreak on 8th and 9th May, resulting in 84 deaths.

First appearance of cholera in Bundelkhund.

The Bundelkhund Agency reported eight deaths in one village between 14th and 26th April, the first of the year; and 54 from 24th April to 14th May in eight towns of Bundelkhund.

"The year 1875 was again an epidemic season. The first intimation of cholera was in the end of April, from Bhurtpore, and on May 10th some cases occurred at Sookait in Holkar's territory."

First appearance of cholera in Rajpootana.

Again Dr. Moore writes:—"It may be remarked that the disease commenced almost simultaneously in the month of May, at places in the south, in the north and in the centre of the extensive province of Rajpootana, between which communication could not have taken place within the time. This supports the conclusion that other causes than human intercourse originate the malady."

Below the Himalayas, in the extreme west of the North-Western Provinces, in the very same week, cholera manifested its existence.

Western division of the epidemic area in Northern India showed its cholera in the same week.

"Cholera prevailed in the Rajpore and Dehra Circles from the 24th April until the 27th May."—*Planck.*

South of the Jumna.—"The first death recorded was at Karwi, on the 10th April; on 22nd April at Oran in the centre of the district; and at Banda on 25th April."—*Planck.*

Agra and Muttra.—On 12th April, an officer was attacked at Agra, and simultaneously appeared an outbreak at Saint Peter's College.

At Muttra, the 10th Hussars were attacked in the same week. The first death occurred on 22nd April, the second on 26th April, and the last on 3rd May.

The Sanitary Commissioner for the North-Western Provinces is impressed with the fact that the cholera of 1875 did not invade the area under his observation in geographical continuity, and that importation failed to establish cholera—for example, in Mussoorie, although 42 people who took it up the hill from Rajpore were seized in the station. He notes, that the cholera of the spring prevailed simultaneously in the eastern circle of Goruckpore and the western circle of Dehra, separated by six degrees of longitude.

The fact recognised, that, in the North-Western Provinces, there was no geographical continuity in this invasion.

The first known cases of cholera in the Delhi district occurred in the city of Delhi. From the 6th to the 11th May, there were eleven persons attacked. The next known case occurred in the sudder bazar outside the city wall in a man who had returned from Kurnal on 10th May. Between the 10th and 18th, there were six apparently unconnected cases, which occurred in different parts of the city. After the 18th, the disease disappeared and remained absent from the city for nearly a month.

First appearance of cholera in the Punjab.

"The deaths of the Punjab registered under the head of cholera in the first four months of the year (22 in number), were all specially enquired into, and were ascertained, with some approach to certainty, not to have been cases of cholera at all."

The Sanitary Commissioner for the Punjab seems to assume that the cholera of his province was imported. Before going on to speak of the Delhi outbreak of 6th May he says: "It is necessary to state that cholera in a very fatal form had prevailed previously in many of the districts of the North-Western Provinces and Oudh, with which the Punjab districts are in constant communication by railway." He does not explain why under these conditions imported cholera was conveyed to Delhi and to nowhere else on the line of rail between Delhi and Lahore. My inference is, that it was as little a contingency depending on the chances of human intercourse, that these people were attacked, as were the parallel facts, that the first case of cholera in the 2nd Goorkhas at Dehra occurred on 4th May, and that, in Western India, our troops at Baroda were attacked on the same day as these residents of Delhi; or, to revert to the Delhi district, that the earliest cases in the epidemic of 1862 were reported on 6th May; and that in 1867, 70 villages of the Delhi district were attacked between the 1st and 12th of the same month; or that the Sanitary Commissioner for the Punjab, dating May 1st, 1872, should write regarding the first intimation of the imminent epidemic thus:

"Cholera has shown itself in the several districts between Delhi and Jullundur. Twenty deaths have been registered in the town of Manimajra in the Umballa district during the week ending 27th April."

While the great cholera of March and April was in progress in the Gangetic districts, in Oudh, and indeed in all districts of Upper India east of 80° E. longitude, to the west manifestation was repressed. Dehra Dun, under the hills, was the only tract suited for the display of vigour, and here 200 deaths occurred in May. Against 27,000 deaths up to the end of May in the east, after excluding Dehra, we find within the same time less than 200 deaths registered in all from Shahjehanpore and Bareilly in the east to the North-Western Frontier:

The special area of early spring cholera in the districts of Upper India east of 80° east longitude. Repression of the spring cholera west of 80°.

Cholera deaths of the North-Western Provinces and Oudh, January to May 1875.

Eastern Epidemic Tract.		Western Epidemic Tract.		Western Epidemic Tract.	
Oudh and eastern districts of North-Western Provinces	27,000	Moradabad	19	Mozuffernuggur	10
		Bareilly	8	Meerut	1
		Shahjehanpore	29	Bolundshuhur	25
		Budaon	23		
		Bijnour	30	TOTAL	172
		Saharunpore	27		

For Agra, Muttra, Mynpooree, and Allyghur, the mortality of May was under 150; and in all Rajpootana, 57 deaths only were registered to the end of May.

Just as at Nasik, and in the same week, an outbreak occurred at Jaleysur in the Agra district, in anticipation of the cholera due three weeks later; and between the 12th and 15th April, the indices showing the existence of the repressed cholera appeared, Saint Peter's College, which suffered in the preceding epidemic, again showing the earliest predisposition to the attack.

Area of repression in the Central Provinces.

In the Central Provinces with the exception of the Tapti and Western Nerbudda districts on the west, and in the Raipur and Bilaspur districts in the east which are naturally associated with the cholera of Bengal, up to the end of May the cholera registration was nearly a blank: Jubbulpore gave 2 deaths, Murwara, in the Vindhyan tract, 18; and Betul 12. This cholera spread neither in Jubbulpore nor Murwara, and Betul did not register another case until July. Jubbulpore, the great railway centre, tapping the cholera-stricken Nerbudda Valley on the one hand and the cholera-stricken Gangetic Valley on the other, returned for the whole of 1875, 11 deaths only out of a resident population of 383,000, and this not as a consequence of the inability of cholera to localise itself, for this same district lost nearly 8,000 of its population in the epidemic of 1868-69.

Repression in four districts of the Berars.

While the Nerbudda and Tapti districts immediately to the north suffered throughout April and May, the cholera of May affected two only of the six districts of the Berars, and these the most westerly. Not a single death was registered in the four remaining districts lying to the east—Basim, Amraoti, Ellichpur, and Wun.

Geography of the spring cholera of Bombay.

In the north of the Bombay Presidency the spring cholera had firmly established itself, adapting its manifestation to the local influences, the parallel manifestation being delayed by a month as compared with that of Oudh and the valley of the Ganges. From Ahmedabad in the north to Poona in the south, cholera was universal in April and May, and no district escaped. Ratnagiri afforded 11 deaths, and Sholapur a single fatal case in April and May; and, with these exceptions, not one death was registered in any district farther south, and Sind to the west absolutely escaped until November, with the reservation that one death did occur at Kurrachee in July.*

The area in Western and Southern India which was unoccupied by spring cholera.

Leaving out 10 deaths in Malabar spread over the first six months of 1875, and evidently due to erroneous registration—no death from cholera was recorded in any district between the occupied area of Bombay and the districts occupied in Southern India. In none of these districts of Bombay or Madras did cholera show itself before the setting-in of the monsoon; and the alternative is, to reckon that cholera moved upon them with the monsoon influence, or that the repression over this tract was absolute up to the last ten days of June.

These actual facts regarding the repression of the cholera of 1875 within areas, or the absence of the materies from areas subsequently covered, clear the ground for the consideration of the next question—When did the cholera, distributed as here recorded, come into active epidemic existence and move upon areas previously free?

Goruckpore and Busti, the tract first affected by the new epidemic. The aspect in this tract of the cholera of the end of 1874 and spring of 1875.

I have spoken of the localisation of cholera in Goruckpore and Busti from July 1874 onwards, when all the rest of India beyond the endemic area was free from cholera. The deaths of the months were as under—

June.	July.	August.	September.	October.	November.	December.
0	17	161	1,278	3,393	689	39

In January and February 1875 not a single death was registered. Cholera re-appeared in March, and the mortality ran thus:—

March.	April.	May.	June.	July.	August.
311	2,457	1,719	1,082	443	166

Nineteen cholera deaths in all occurred in the province of Oudh from September to December 1874, and 16 of these, which occurred in Fyzabad in November and December and to which I have already referred, I reckon to have been the precursors of the epidemic cholera of 1875. In all Oudh north of the Gogra, one of the most deadly cholera tracts of India and geographically continuous, there was not a single cholera death in the late months of 1874, when Busti and Goruckpore were suffering; and Jaunpore to the south, out of a population of a million, registered only 4 deaths from July to December 1874.

The re-invasion of Oudh.

We know from experience that the earliest appearance of cholera in Eastern and Northern Oudh takes place, as the rule, about the 20th February, and that the 20th March is for the same tract the date of general epidemic appearance, anticipating by a month the cholera due to appear elsewhere on 20th April.

This has to be taken into account when we are told that cholera has been imported.

* The single outbreak in Sind, which resulted in 42 deaths, was confined to one registration circle of the Kurrachee district.

The cholera which appeared in Oudh ran parallel with the revitalisation of the cholera of Goruckpore and Busti in 1875, after taking into account that 50 deaths, out of 56 registered in February, occurred in the extreme south of the province* :—

Cholera Deaths of Oudh, January to August 1875.

February.	March.	April.	May.	June.	July.	August.
56	824	8,726	4,206	2,137	1,050	979

The parallelism in ratios is shown thus:—

Died in each Month out of the Total Mortality from March to August.

	March.	April.	May.	June.	July.	August.		
Goruckpore and Busti . .	5·0	39·8	27·8	17·5	7·2	2·7	=	100·0
Province of Oudh . .	4·6	48·7	23·5	12·0	5·8	5·4	=	100·0

In this aspect, the cholera of Oudh appears as a revitalised cholera, and not as the cholera of a new invasion distributed over the province from 15th February onwards.

The appearance of cholera was delayed until April in one district only of Oudh. Hurdoi is the most westerly district of the province. The first case, after a lapse of 11 months, occurred on 11th April, just as in Bundelkhund and Agra; and within three days four subdivisions of the district were affected.

The appearance and growth of the cholera in Upper and Northern India in the spring.

In the whole of the area of the North-Western Provinces, 35 deaths were registered in January 1875. In February the deaths rose to 160, 15 in the western districts and 145 in the eastern. In March there were 1,100 deaths, 42 in the western and 1,058 in the eastern districts, which are associated with Oudh in physical and meteorological characteristics. Northern India still remaining unaffected, the deaths of the North-Western Provinces in April were 6,031; but out of this large total the deaths of the western half of the province were, in April, still under 100. The tendency to the appearance of the epidemic over a wider tract was, however, shown by the occurrence of cholera at Banda and Hamirpur—a link connecting the spring cholera of the east, with the spring cholera of the west; the cholera of 20th April spread over the western area from Dehra Dun to Sholapore.

Growth of cholera in the early spring area of the Central Provinces in the first quarter of 1875.

Raipore and Belaspore are the only districts of the Central Provinces in which we find cholera localised in the first quarter of 1875. This eastern division of the Central Provinces gave for the year 7,228 deaths, out of a total for the province of 14,456; and these early deaths were true forerunners of the cholera which became epidemic in May and culminated in July and August.

In accordance with previous experience, cholera was not conveyed out of this area into the districts of the Central Provinces lying to the west.

The growth of the spring cholera of Madras and Bombay of 1875.

This was the manner in which the cholera of the districts of Bombay invaded in the spring progressed. The deaths of the Gangetic districts rise and fall naturally from March to August; those of the early districts of Bombay, from April to September—

	April.	May.	June.	July.	August.	September.
Deaths .	786	5,353	10,209	8,563	4,516	1,160
Per cent. of the total .	2·6	17·5	33·4	28·0	14·7	3·8=100·0.

The homologous phenomenon, which is entirely a natural one, was thus exhibited in Southern India, in the Tanjore district, which got its cholera in the same week:

	April.	May.	June.	July.	August.	September.
Deaths .	65	1,589	4,972	7,184	1,733	945
Per cent. of the total .	·4	9·6	30·1	43·6	10·5	5·8=100·0.

All throughout India the manifestations of spring cholera in 1875 were links in one common chain.

These general statements exhibit to us nearly every province of India linked in one week by a common chain, extending from the Himalayas to the extreme south of the continent. The dates are not fortuitous, nor are they brought together to patch up a theory. It is the simple statement of a great truth, that, after having disappeared for two years, in the third year cholera re-appeared in the same week from one extremity of India to the other.

* The dates given are—Partabghur 19th, Rae Bareli 17th, Sultanpur 28th February. Cholera appeared at Fyzabad on 16th February; and 5 deaths, out of the 6 remaining, occurred before the end of the month.

CHAPTER III.

THE GENERAL PHENOMENA ATTENDING THE OCCUPATION OF THE CHOLERA AREA OF THE SPRING OF 1875.

The field to be occupied was a vacant one, and all experience has taught us that in any area of India unoccupied for two years in succession, invasion from without, and invasion only, will cause the re-appearance of cholera. It is from within the endemic area in Eastern Bengal that this cholera of invasion comes,—marching, say some; by aerial progress, say others. Passengers setting out from Lower Bengal are presumed to have carried cholera to Ceylon; passengers setting out from Lower Bengal or the Gangetic districts are presumed to have carried cholera to Dehra Dun and the Mussoorie Hills, and to nearly every district of Northern and Western India intervening between the Himalayas and the Deccan; and their presence, it is suggested, was the cause of a simultaneous outburst within ten days along a line extending for many thousand miles—a line not overstepped in Northern and Western India, and bounding vast tracts traversed by roads and railways, intervening between the limits reached and the endemic area, within which as yet cholera failed to show itself.

The cholera of the spring of 1875 was neither introduced by human intercourse, nor locally grown from pre-existing germs.

If the hypothesis that cholera marches be true, it is very singular that the body of the epidemic of 1875 got nearly to the end of its journey before visibly commencing its progress over the epidemic area of Hindostan.

The aspect of the cholera of the spring of 1875 forbids the acceptance of this hypothesis by any one who has studied cholera as a naturalist.

As little reason is there to entertain the suggestion, that the general re-appearance was but the renewal *in situ* of the cholera of the preceding epidemic, repressed throughout 1873 and 1874 by occult meteorological influences. There was nothing abnormal in the meteorology of these years; and with the presence of the materies of an epidemic, the general behaviour of cholera over India would have been consistent with previous parallels. I do not believe that the suggestion is tenable for any district of the many that I have cited. Take the single example of Dehra Dun as typical. The epidemic of 1872 died out in October of that year, and not one cholera death was recorded up to April 1875, with a single exception, which occurred in October 1874. This cholera of 1874-75 was not grown in Dehra Dun; it was the cholera of a new introduction.

Finally, it is suggested that the phenomenon is one of the meaning of which we know nothing, and can know nothing.

But every occurrence connected with cholera has many parallels—some absolute, some modified. Every modification has its meaning, explaining and illustrating why in each instance the divergence takes place. It is on previous parallels and their modifications that such a case as that now before us must be studied.

We naturally go back to the events of April and May 1818 in Western and Central India, an area supposed for the first time on record to have been covered with cholera in these months.

Parallels in relation to which the cholera of the spring of 1875 may be studied. Parallel of the spring of 1818.

The facts as recorded by Jameson will be found sketched in my original Report (pages 95 to 97). I found it necessary, writing in 1869, to append a footnote to this sketch, warning the reader that where Jameson speaks of this spring cholera of 1818 as "marching," the statement must be regarded as theoretical only—a caution justified by the events of 1875 and of many intervening epidemics.

I cannot now go over this ground again. Any one who turns up the passage will be struck with the parallel. The great spring cholera of Oudh and Goruckpore, and of Allahabad and Cawnpore, culminating in April—the repulsion from the western half of the North-Western Provinces, the "marked aversion" of the cholera for Bareilly and the other tracts east of the Ganges—the April cholera of Bundelkhund, and the cholera of Jubbulpore of 9th April—cholera in Western Malwa culminating all over between 4th and 12th May—the cholera of Hoshungabad appearing on the same week in 1818 and in 1875, the town being in the one year the centre of a wilderness and in the other a station in the Great Peninsula Railway—cholera occupying the Berars before the end of May; all these tell us that what happened in 1875 happened in 1818, and by no contingency necessitating the intervention of human intercourse as explanatory of the facts.

To attempt to bridge over the difficulty of accounting for the presence of cholera in the west while it had not as yet appeared in many intervening tracts of country, I cannot do better than reproduce a sketch, which I find among my notes, written under the impulse imparted by the recurrence of parallel circumstances, at the very date to which the preceding paragraphs refer. It is dated 11th May 1872. The general epidemic of Bengal of that year was imminent, and it was my desire to find out whether anything definite could be gathered, towards elucidating the conditions under which the epidemic then manifest had entered the Bombay Presidency.

The parallel of the invasion of Western India in 1872. My appreciation of this invasion in the spring of 1872.

The following is the memorandum :—

"We are anxiously looking out, expecting the advance of epidemic cholera over Northern India a few weeks hence, and newspaper reports tell us that already in the Bombay Presidency cholera is epidemic along a line reaching from the northern to the southern limits—from Neemuch to Belgaum.

"I regard this cholera of Western India of the spring of 1872 as the cholera of a new invading epidemic, and I look upon the individual manifestations in the different districts, appearing between the end of last year and the present date, as reproductions of a cholera actually distributed over Western India in the last months of 1871. Hence I regard the trifling manifestations that may have occurred between the 20th October and the end of 1871, likely to prove of extreme value in determining the epidemic relations of the cholera now manifest.

"This opinion is based not only on the epidemic occurrences now in progress in the Bombay Presidency. We are tracing with care the events of the end of 1871 in the Bengal Presidency also; and to me investigating the facts in the light of parallel history, the manifestations both in the east and west present themselves as portions of one and the same epidemic.

"When the history of this epidemic comes to be written and the successive stages of its progress recorded, my impression is, that we shall be called on to say at what date this cholera reached the Bombay Presidency from the east.

"Regarding the epidemic of 1868, of which the present epidemic is the successor, the Sanitary Commissioner for Bombay stated simply, that he could not tell whence it came nor how it originated; this was the epidemic which is shown on our map of 1868 geographically continuous with the cholera of the same year in the valley of the Ganges. But the history of 1871-72 takes us back to a different parallel. The great western cholera of the end of 1859 appeared in succession to the great Gangetic cholera of the spring and autumn, while in the intermediate area, namely, the Central Provinces, cholera did not manifest its presence before the spring of 1860. This was the area which I could not map out as covered by invading cholera in 1859, because I found no record of invasion after patient investigation. The epidemic facts of 1871 show the value of the caution which I exercised in declining to commit myself in the matter as regards 1859. To go further back still, the western epidemic of 1853-54 also exhibited an epidemic phenomenon precisely parallel. This dreadful cholera, which occupied the valley of the Ganges and the eastern division of the epidemic area generally as far west as Cawnpore, where the 70th Regiment lost 183 men, was lost to us in Northern India, and leaving the Central Provinces almost untouched, although the indices were distinct, reached Bombay in October.

"The point I wish to make clear is this, that a great Gangetic cholera may invade Bombay towards the end of an epidemic year, while in the intermediate tract cholera may not have been visibly distributed, or in which its presence may have been marked by the merest sprinkling of what are called sporadic cases. Theoretically, I ascribe the phenomenon to the distribution of the material of a new epidemic over Western India after the setting-in of the north-east monsoon, and to its precipitation over a wide stretch of country adapted for its revitalisation in the spring. Reproduction as the rule is earliest in Nimar, and in April Malwa and Guzerat show the cholera when reproduced.

"The question then is, at what date this cholera apparently passing over the Central Provinces without leaving its impress, entered the Bombay Presidency."

In my report on the cholera of 1872 I have taken up the same subject at length.

From this note, written five years ago, this may be gathered, first, that I regarded Jameson as describing erroneously the method in which Western India was entered in 1818, when he spoke of streams of cholera diverging from Banda and Saugor in March and April; and secondly, that I had serious doubts of the correctness of my conclusion that cholera was aërially distributed over Western India in the spring of 1818.

The significance of the spring cholera of 1818 of Western India reviewed after the experience of 1872 and 1875.

What had been impressed on my mind by further experience was, that the re-vitalisation of cholera is, as regards the date of re-appearance, a phenomenon subject to little variation, while the distribution of a spring cholera is much subordinated to meteorological contingencies. I had studied these dates in relation to 1858, 1862, and 1867, known years of re-vitalised cholera, and recorded them for future use in determining at what dates a cholera sown over a province shall again come into manifest existence. These dates, so beautifully consistent throughout sixty years, I should do wrong not to recognise as fixed and natural, not for an invading cholera, but for a cholera asserting by local re-vitalisation the fact of its previous presence. They are subject to fluctuation with no minor contingency, and a hundred years hence the tabulated statements will exhibit identically the same facies.

And that the original distribution may occur with little manifestation in the human being, or none at all, to show the fact that a province has been covered, I have made evident by the analysis of the cholera of November and December, already noticed, giving warning of the invasion of Northern India and foretelling revitalisation at the due date. I call attention to this memorandum that it may be consulted if the evidence be sought for.*

Before the repeated experience of late years had brought the fact so clearly to light, the impression that some such explanation of phenomena apparently exceptional would be found was present to my mind. Under this impression I wrote the words in my original report (page 87): "For epidemic manifestation to be obvious to us, it is necessary that it should take place coincidently with the vitalisation of cholera, and therefore at the seasons when cholera naturally

* See also Postscript, page 317.

revives. But I see nothing improbable in the suggestion that cholera may be distributed in its dormant state as well as in its vital condition."

These were the circumstances which induced me to attach so great an importance to the first case in our types that showed itself in the epidemic area of Upper India in succession to the epidemic of 1872; and to report to the Sanitary Commissioner that I associated the occurrence of this undoubted case of cholera, which, as before mentioned, occurred at Lullutpore on 28th October 1874, with renewed epidemic distribution, the extent of which was to be determined only by the spring manifestations of 1875.

The cholera of the endemic area preceding and accompanying the new cholera of 1874-75.

Was there evidence of the presence of a body of cholera epidemic within the endemic area sufficient to account for an overflow involving Western and Northern India?

These figures show that in the last ten days of October, the exact date at which endemic cholera is due to come forward after its annual disappearance, a great epidemic commenced; and 60,000 deaths were registered in Bengal Proper before the middle of 1875, and 116,606 in all before the end of the year, against a total of 57,000 in 1874.

The culmination in Lower Bengal of the spring cholera of March and April I take to be the homologue of the simultaneous culmination in the Gangetic Provinces and in Oudh already shown, the cholera being of one and the same growth. And I take it to have been the very same material which became evident in Ceylon in January, February and March, and in Southern, Western and Northern India in the middle of April; which, over certain areas, was fostered into epidemic strength in May, and was in others anchored down until set free with the advent of the monsoon after 20th June.

Rise of Cholera within the Endemic Area from October 1874 onwards.

Cholera Deaths of Bengal Proper, September 1874 to August 1875.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
...	...	...	...	...	...	...	...	487	1,670	6,235	5,919
6,031	5,941	11,821	11,799	11,155	8,538	6,865	4,750	...	...	...	...

General conclusion regarding the primary distribution of the epidemic.

In its own breeding grounds cholera has the power of manifestation in October, November and December; beyond the endemic area this power of manifestation is lost or impaired. And although cholera may be epidemically spread in October as well as in spring or during the monsoon season, the material so diffused is inert or comparatively inert, until certain influences cause it to come into manifest life, earlier or later according to the situation occupied, but at dates fixed and normal for each province and locality. And the inference we draw is, that the great fan-shaped area, of which Eastern Bengal is the handle, and the line occupied by the spring cholera of 1875 the circumference, was covered in the last months of 1874 by a cholera which lay dormant until 15th April.

Over the area marked out by the spring cholera, after the middle of October blows from Northern and Eastern Bengal, the north-east monsoon. As I write, on 20th October 1877, its burst for the year is announced. In his report for 1875, the Sanitary Commissioner for the Central Provinces writes: "The wind changed to the north, and in the third and fourth weeks of October rain fell generally over the province. Through October, November, and December the prevailing wind was from the north-east, which is the normal direction at that season of the year." And the report for the last weeks of October 1874—the presumed date of distribution of the cholera of 1875, was the same: "North-westerly winds continued through the early part of October, but in the latter end of that month the wind veered more to the east, and took up its normal quarters for the cold weather, which are north and north-east." And we read that in the eastern districts of the Central Provinces, which so powerfully localised the spring cholera of 1875, the weather continued cloudy and moist through the month of October. Given the material of an epidemic, here is indicated the vehicle for its conveyance, and its limits are but the limits of the same air-borne influence. A cholera thus geographically deposited is placed so that when the south-west monsoon gives it life and motion its advance is from the south-west; and we are prepared to find in the monsoon season of 1875 great and sudden movement on vast tracts within the area of the fan, absolutely unoccupied before the manifest occupation of July and Auugst. These were the movements spoken of in former times, and constantly cited even now, as advances in the teeth of the south-west monsoon, and which I have all along maintained to have been apparent only and not real. The natural history of cholera is a consistent history, and it is our fault if we fail to unite into a harmony every fact connected with its manifestation.

CHAPTER IV.

THE CHOLERA OF THE MONSOON OF 1875.

Meteorology of the third week of June over Central and Upper India.

In the third week of June the south-west monsoon set in fairly over the Central Provinces and Upper India. Regarding the Central Provinces, Dr. Townsend writes: "In many of the districts north of the Satpuras, no rain fell either in March, April or May. The monsoon rains commenced in the second week of June. In that week south-westerly winds, with heavy falls of rain prevailed over the districts south and east of the Satpuras, but it was not until the following week that heavy rain fell in the northern districts."

As regards Bengal Proper, it is remarked that in May the easterly direction of the wind was much more strongly marked than usual, and this feature was accompanied by a rainfall much in excess of the average; and the reporter for the north-west notes, that easterly winds brought many showers during May. At the end of the first week of June the monsoon current began to set in from the east, although up to the end of the month the distribution was still partial.

The monsoon in Northern India was good and normal. Mr. Planck observes:—"The deficient fall of June was amply compensated for in July, August and September, and a larger rainfall was recorded than in the same months of any of the past five years."

First appearance of the cholera of 1875 in Northern India was with the monsoon.

The week from 20th to 27th June is the week that will frequently be found noticed in my reports as associated with the renewal of energy in a threatened epidemic of cholera. The phenomenon is studied under the head "The Break between the Spring and Monsoon Cholera."

In the Punjab the districts newly involved in June were—Gurgaon, Sirsa, Umballa, Simla, Kangra and Amritsar. The cholera then appearing was an invading cholera, and in each case originated an outbreak in the district.

Gurgaon.

"The first registered death was on 2nd May; it was solitary. The first known outbreak occurred on 12th June. In the city of Rewari, the first registered death occurred on 28th June."

Out of the six towns of Gurgaon affected in June, the cholera commenced in five between the 23rd and 28th.

Delhi,	City . . .	First case was recorded on June	26th.			
,,	Rural Circles .	,,	,,	,,	23rd.	
Hissar,	,, . .	,,	,,	,,	17th.	
Sirsa,	,, . .	,,	,,	,,	14th.	
Simla,	Town . .	,,	,,	,,	26th.	
,,	Rural Circles .	,,	,,	,,	26th.	
Kangra,	,, . .	,,	,,	,,	17th.	
Amritsar,	,, . .	,,	,,	,,	20th.	
Lahore,	,, . .	,,	,,	,,	16th.	
Rawalpindi—	Pindigheb .	,,	,,	,,	15th.	

Umballa.

On the 11th June, cholera appeared in the hamlet of Somalki, and on the 15th in the town of Sohana, and before the end of June 31 villages had become infected. In one village of 242 inhabitants 20 deaths were registered between 24th June and the end of the month.

The native States of Sirmoor, Pattiala, and Mundi were also simultaneously affected.

Invasion of the Punjab Proper.

This analysis implies that in June, with the exceptions quoted, the Sanitary Commissioner for the Punjab did not register even one solitary case of cholera before the middle of the month, and that within ten days this province was occupied by cholera from Amritsar and Kangra in the west to Umballa and Simla in the east. The area covered was a distinct geographical area, and was not the area which would have been affected had cholera travelled by the highways of the province.

Karnal, Loodianah, and Jullundur.

Carrying on the history, we find that the presence of cholera should have been recorded in the Karnal district, an undoubted case having been observed on 23rd June. To the cholera of the last week of June we may add that of the two first days of July, which saw the commencement of cholera in the Loodianah* and Jullundur districts.

Rural circles of Karnal, Hissar, and Hoshiarpur reported cholera on 11th and 13th July.

July cholera of the Punjab showed no geographical extension.

But out of 783 deaths of July in the Punjab, 4 only were recorded in districts not mentioned above as receiving cholera after the middle of June—a single death in the Gurdaspur district on 5th July, in the Lahore district on 15th, in Mooltan on 29th the solitary death of the year, and in a rural circle of Peshawar on 10th, possibly erroneously recorded. In a word, there was throughout July no further movement of cholera into any new tract of the province. The August culmination of this cholera, universal from Lahore to Madras, I shall not now allude to.

* In the Sanitary Commissioner's printed statement the date given is 25th June, which is more probably correct.

In the Himalayas—Simla, Kasauli and Dhurmsala.

While the first case appeared in Simla on 26th June, Dhurmsala became affected on 28th and Kasauli on the 3rd July within a few hours of the time that the great outbreak of 1872 first showed itself. It was in fact upon the Himalayas, from Cashmere to Gurhwal and Kumaon, that the force of the northern branch of the cholera of 1875, aerially diverted into Upper India, was expended. Two districts only of Northern India registered above 2,000 deaths—Allyghur and Bolundshahr; and seven districts registered above 1,000 and under 2,000 deaths.

Over Northern India the material distributed sufficed for the manifestation of a minor epidemic only. The lessons taught are, however, as valuable as those to be deduced from a study of a more general or destructive epidemic. I shall have occasion specially to study the behaviour of this cholera in Northern India, and shall return to it again in a future chapter.

Parallel in the Berars of the invasion of 20th June of Northern India.

The history of cholera in Western and Central India was consistent with the theory of a general advance with the monsoon influences of 1875.

I take the cholera of the Berars as typical, expecting to find a manifestation parallel with that displayed over Northern India from 20th June onwards.

The Berars contain six districts. Two out of the six, Buldana and Akola, showed the presence of cholera in May. In this month the cholera was local and localised.

In the 15 registration circles of Buldana the date of commencement of cholera in vigorous manifestation is given by the Sanitary Commissioner as under: June 10th, 1; June 24th, 6; July 1st, 5; July 8th to 22nd, 14. Out of 19 sub-divisions of Akola affected in June, culmination took place in two on 3rd and 10th June; in 14, between the 15th June and 8th July; and in 3, between 15th and 22nd July.

Amraoti, Ellichpur, and Basim did not register a single cholera death before 15th June; two circles of Ellichpur were affected on 15th June, the first circle of Amraoti on 20th, and the first circle of Basim on the 26th. This is an absolute parallel with what is recorded above concerning the Punjab. Wun, the remaining district, was entered for the first time on 31st July, not a case having been registered in May or June, or the first 30 days of July. This cholera of 31st July was caused by a second movement of monsoon cholera wide-spread over India in the first week of August. In this week, 8 subdivisions of Wun, 3 of Basim, and 4 of Amraoti showed cholera for the first time.

Movement of 20th June affecting the three northern districts of the Nizam's territory associated geographically with the Berars, and the adjoining tract of the Bombay Presidency.

In the districts of the Nizam's territories adjoining the Berars, the registration in Aurungabad dates from 22nd June onwards; 540 deaths occurred up to the date of the first special report on 6th July, and the total reached 3,058 before the end of August. The Jaulna district was entered between 17th and 24th June. At Hingoli the outbreak was simultaneous; the first dates recorded, 3rd, 5th and 8th July, refer to special cases, and the remark is appended that many deaths have occurred in the surrounding villages from which no statistics have been procurable. These three districts are naturally associated. At this time the southern districts of the Nizam's dominions got no cholera: the epidemic did not move into Hyderabad; and Mominabad to the north-west, and Ling Sagur to the south remained free of cholera. To the south-west, in geographical continuity, Ahmednagar and Sheogaon were affected on 18th and 23rd June; six circles of Sholapur, between 18th and 27th; and six circles of Satara between 22nd and 30th June.

This cholera of the Bombay Presidency was definitely cut off from that which appeared simultaneously with the wide spread of cholera to the east five weeks later, when so many districts of Madras and the Central Provinces were invaded; for example, the cholera of Kaladgi, which first returned deaths in 1875, between 22nd July and 17th August, in eight out of ten registration circles.

The districts of the Central Provinces adjoining were not entered by cholera in the new advance of 20th June.

In the epidemic leap of 20th June the adjoining districts of the Central Provinces were not entered. The fact was so striking, that the Commissioner of the Berars, Colonel Nembhard, thinks it worth while to mention that this cholera in its advance from the west was 66 days in the Berars before the first case in the adjoining province was heard of.

In association with Raipore and Bilaspur in the east, Bhandara got cholera in June; but this cholera falls into a different history. Four circles in Hoshungabad and Nursingpur registered cholera commencing on 3rd, 4th, 5th and 8th June, with 38 deaths up to the end of the month. But up to 14th July, no other circle in all the Central Provinces registered for the first time a case of cholera.

The general invasion of the Central Provinces was from 20th July onwards.

In the Nagpore district, a single death occurred at Ramtek on 14th July, and on the same day an outbreak which resulted in 22 deaths before the end of the month, commenced at Arvi; in the Wardha district.

Before the end of July, four circles of Nagpore showed cholera, beginning on 18th, 22nd, 26th and 30th, and before the middle of August 15 circles were affected.

Three circles of Wardha adjoining Wun in the Berars, commenced to register cholera on 29th, 30th and 31st; and 10 circles were registering cholera within the next ten days.

The Atner circle of Betul began to show cholera on 28th July.

Two circles of Chindwara, which lost 433 out of a total mortality for the district of 454 for the month of August, gave the 3rd August as the date of the first case attacked.

Chanda registered its first case on 1st August, and Warora, the circle of Chanda, which lost in the month 127 out of 167 cases, showed cholera first on 6th August.

It was in this week—his letter is dated 4th August—that the Sanitary Commissioner for the Central Provinces, finding cholera springing up suddenly in so many districts, wrote thus to the Sanitary Commissioner with the Government of India—

"The western epidemic which was in April confined to the district of Nimar and the western division of Hoshungabad, spread eastward up the Nerbudda Valley during May, and on the beginning of June had reached the confines of Nursingpore. But with the setting in of the rains extension in this direction ceased, and cholera has now almost died out in Hoshungabad. Up to date, the greater part of the Nursingpore district, and the whole of Jubbulpore, have remained free. The Vindhya districts also, with the exception of a few cases in Murwara, have escaped. In Nimar, however, the prevalence of cholera has somewhat increased during the last fortnight, and the same epidemic, which, during the months of May and June, spread eastward from Khandeish through Berar, has reached the districts of Nagpore and Wardah. The Satpura districts, with the exception of three villages of Baitool, have hitherto remained free."

This description agrees in its details almost identically with the registration of 1872. The eastern limit of the epidemic province is the same shown on our map of the epidemic of 1872; and from this eastern limit the cholera of 1875 was universal to the west as far as Kurrachee, and south to the southern confines of the Bombay Presidency.

What was in progress over the Central Provinces but a portion of a far wider movement.

This last sentence was written in August 1875, two days before receipt of the telegram telling of the arrival of cholera in Madras City, on which I based the exceedingly wide generalisation, which proved true, that within a fortnight the whole country between the western coast and the eastern coast of India had become involved in a general invasion.

Out of what fields did this cholera of the monsoon season, invading the Berars, the Central Provinces, the entire south of the Bombay Presidency and Hyderabad, and extending across India to the eastern coast, come?

The answer is given by studying the behaviour of the cholera then occupying Western India; and therefore I take up now the natural history of the cholera of 1875 in the Bombay Presidency.

The cholera deaths of the Bombay Presidency of 1875, re-arranged according to a natural method; the beautiful phenomenon displayed.

I find it necessary to re-arrange the deaths of the Bombay Presidency in order to discriminate what is in a great measure concealed in any tabulation founded on a theory which does not apprehend the truth that cholera tells its own history, and that this history is independent of the chances of distribution afforded to cholera by human agency.

This re-arrangement brings prominently before our eyes one of the most perfect illustrations ever afforded in the natural history of cholera.

I have already given the dates of the first cases in the districts affected in April. In the districts invaded in April and May the cholera is shown as disappearing in August over an enormous extent of country. But the sea-coast districts below the Ghâts continue the cholera of the spring even into the last quarter of the year; and certain circles of Poona, Ahmednagar, and Nasik retain cholera up to October, although these last show rapid and continuous decline from August.

In the second statement C. the picture is reversed. Over a vast and defined area spring cholera is unrepresented. Suddenly, from the 18th June onwards (as the rule), invasion occurs, whole districts being occupied within a few days, and the descent of the north-east monsoon is seen pushing the same cholera down to the south and west through October, November and December, until we see it, as it were, driven into the sea at Honawar, the most southerly town of the Bombay Presidency, on 21st December; but, in reality, leaving behind it over the districts invaded, the seed destined to spring in the early months of 1876 into a general epidemic.

This is but a repetition of the phenomenon so conspicuous on Scot's map of 1818; over the same tract the dates of 1875 are almost identical, as well as the aspect showing the invasion of the Malabar coast districts with the setting-in of the north-east monsoon:

A.—*The Area of Spring Cholera of 1875 in Bombay within which Cholera died in August.*

(Five circles of Surat first invaded in August and September are for convenience retained in this statement. In the Kaira and Kurrachee districts cholera again showed itself in November and December.)

District.	Circle.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths of 1875.
Khandesh.	Seven Circles of Nasik.	10	270	240	171	191	100	...	...	...	...	982
	Jamner	...	...	16	370	695	132	...	...	...	...	1,213
	Erandol	...	...	151	109	253	136	...	...	...	...	649
	Bhusawál	...	...	...	214	304	59	...	...	...	...	577
	Sanda	...	...	9	159	276	7	...	...	...	..	451
	Nasirabad	...	...	64	102	154	44	...	...	...	...	364
	„ Town	...	...	2	6	45	45	...	...	...	...	98
	Edulabad	...	...	36	65	183	10	...	...	...	...	294
	Parola	...	...	49	33	107	93	...	...	...	...	282

A.—The Area of Spring Cholera of 1875 in Bombay within which Cholera died in August—contd.

District.	Circle.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths of 1875.
Khandesh.	Pachora	...	...	15	78	113	57	...	...	...	...	263
	Dhulia	...	6	119	17	11	46	...	...	...	...	199
	„ Town	...	6	122	3	...	...	...	...	...	...	131
	Yawal	...	...	...	40	111	40	...	...	...	...	191
	Shahada	...	...	5	71	78	12	...	...	...	...	166
	Nizampur	...	3	26	70	49	11	...	...	...	...	159
	Amalner	...	...	46	48	14	26	...	...	...	...	134
	Virdel	...	3	41	48	27	27	8	...	...	...	154
	Raver	...	...	19	6	90	31	1	...	...	...	147
	Chopra	...	...	44	9	72	17	...	...	...	...	142
	„ Town	...	...	4	19	38	13	...	...	...	...	74
	Chalisgaon	...	8	13	23	57	9	10	12	...	...	132
	Pimpalner	...	...	7	72	33	9	...	...	...	...	121
	Sirpur	...	...	10	17	39	29	...	...	...	...	95
	Nandurbár	...	...	...	36	36	7	3	...	...	...	82
	„ Town	...	...	...	4	14	1	...	...	...	...	19
	Bhadgaon	...	...	11	31	3	9	...	...	...	...	54
	Paloda	...	...	...	10	23	...	...	...	...	...	33
	Total	...	26	809	1,660	2,825	870	22	12	...	...	6,224
Broach.	Broach	...	...	8	213	27	...	...	...	...	...	248
	„ City	...	...	22	160	9	1	...	...	...	...	192
	Amod	...	...	2	56	64	7	...	...	...	...	129
	Ankleswar	...	...	7	53	32	8	...	...	...	...	100
	Hansot	...	...	...	62	15	21	...	...	...	...	98
	Wagra	...	...	5	47	18	...	...	...	...	...	70
	Jámbusar	...	...	...	23	2	...	...	...	...	...	25
	Total	...	...	44	614	167	37	...	...	...	...	862
Panchmahals.	Kalol	...	31	56	231	14	...	...	...	...	...	332
	Halol	...	7	87	97	18	...	...	...	...	...	209
	Godhra	...	3	26	127	25	3	...	...	...	...	184
	„ Town	...	...	85	68	...	...	...	...	...	...	153
	Jhalod	...	...	11	118	26	...	...	...	...	...	155
	Dohad Town	...	...	17	16	...	...	...	...	...	...	33
	„ Rural Circle	...	...	7	16	...	...	...	...	...	...	23
	Total	...	41	289	673	83	3	...	...	...	...	1,089
Kaira.	Nariad	...	2	163	200	5	...	...	...	...	...	370
	„ Town	...	85	184	18	2	...	...	...	...	...	289
	Borsad	...	...	71	190	45	3	...	...	...	...	309
	Anand	...	2	160	124	18	1	...	...	...	...	305
	Jhasra	...	1	58	180	29	6	1	...	...	...	275
	Mehmedabad	...	2	38	85	16	...	1	...	28	8	178
	Kapadwanj	...	...	102	51	3	4	1	...	...	...	161
	„ Town	...	3	22	26	...	...	...	...	...	...	51
	Mátar	...	...	18	52	20	...	1	...	12	13	116
	Borsad	...	...	6	9	11	...	...	...	...	...	26
	Kaira	...	...	16	7	1	...	...	...	...	...	24
	Total	...	95	838	942	150	14	4	...	40	21	2,104
Ahmedabad.	Daskrohi	...	...	88	184	11	6	...	...	...	...	289
	Ahmedabad	...	...	90	55	1	108	7	...	...	...	261
	Parantij	...	1	31	89	10	39	3	...	...	...	173
	Dhanduka	...	...	...	86	28	6	...	...	...	...	120
	Dholka	...	...	14	66	11	...	2	...	...	...	93
	„ Town	...	...	4	22	1	1	1	...	...	...	29
	Sanand	...	...	22	57	3	1	...	...	...	...	83
	Viramgam	...	...	2	17	...	...	...	...	...	...	19
	„ Town	...	...	...	...	2	...	...	...	...	...	2
	Gogo	...	...	...	...	1	3	4	...	...	...	8
	„ Town	...	...	...	1	...	...	...	...	...	...	1
	Total	...	1	251	577	68	64	17	...	...	...	1,078
	Thurr and Parkar	...	...	...	5	1	...	...	...	...	...	6
Surat.	Mandvi	...	...	...	163	35	1	...	...	...	...	199
	Olpád	...	...	...	50	110	7	4	...	...	...	171
	Surat City	...	...	...	51	80	5	...	...	...	...	136
	Choryasi	...	...	...	50	63	16	...	...	...	...	129
	Pardi	...	...	1	...	...	9	31	58	7	...	106
	Bulsar	...	...	...	...	...	...	23	35	8	8	74
	„ Town	...	...	...	...	...	...	12	13	...	1	26
	Bardoli	...	...	...	1	...	14	6	4	28	10	63
	Jalalpore	...	...	...	...	...	24	13	14	8	...	59
	Chikli	...	...	...	...	...	...	...	...	2	...	2
	Total	...	...	1	315	288	76	89	124	53	19	965
	Kurrachee	...	...	...	...	1	...	...	...	17	25	43

B.—Area covered in Spring which did not part with its Cholera in August.

Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total of 1875.
Bombay City	1	1	...	31	67	132	279	168	43	53	38	21	834
Tanna	...	...	...	3	182	1,679	1,545	1,653	492	234	93	88	5,969
Colaba	...	...	...	...	3	18	312	721	361	37	1	...	1,453
Seven Circles of Poona	...	...	...	43	1,402	1,612	537	413	152	12	...	...	4,171
Seven Circles of Ahmednagar	...	...	...	65	456	905	687	389	151	44	12	...	2,609
Nine Circles of Nasik	...	...	...	211	774	439	195	101	93	14	3	...	1,830

C.—Movement of the Spring Cholera with the monsoon into the unoccupied Districts of the Bombay Presidency.

Districts and Registering Circles.	Date of first death of 1875 in each Registering Circle.	Number of Cholera Deaths in each Month.												Total of 1875.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Poona. Purandhar	June 3	...	...	...	...	...	43	125	62	11	...	...	...	241
Poona. Indapur	May 22*	...	...	...	...	...	59	114	31	38	4	...	...	237
Ahmednagar. Newasa	June 1	...	...	...	...	...	151	194	34	2	7	...	...	388
Ahmednagar. Jamkhed	,, 2	...	...	...	...	...	39	137	93	13	...	8	...	290
Ahmednagar. Nagar	,, 6	...	...	...	...	...	50	418	123	16	3	...	...	610
Ahmednagar. Karjat	,, 10	...	...	...	...	...	83	101	55	10	15	...	...	264
Ahmednagar. Ahmednagar	,, 18	...	...	...	...	...	10	60	34	5	...	...	...	109
Ahmednagar. Sheogaon	,, 23	...	...	...	...	...	59	307	87	...	20	...	...	563
Sholapur. Barsi, Town	April 24(?)	...	...	...	1	...	3	97	13	...	...	...	...	114
Sholapur. Barsi	June 11	...	...	...	...	...	10	506	202	12	...	...	...	730
Sholapur. Karmala	,, 18	...	...	...	...	...	22	357	116	64	...	...	...	759
Sholapur. Sholapur	,, 19	...	...	...	...	...	13	131	70	15	...	...	...	229
Sholapur. Pandarpur	,, 21	...	...	...	...	...	17	248	81	1	...	...	...	547
Sholapur. Madha	,, 23	...	...	...	...	...	6	278	105	1	...	...	11	401
Sholapur. Malsiras	,, 24	...	...	...	...	...	21	65	29	74	17	2	...	208
Sholapur. Sangola	,, 27	...	...	...	...	...	2	296	82	14	16	1	...	411
Sholapur. Sholapur, Town	July 6	...	...	...	...	...	..	75	33	29	...	...	...	137
Satara. Wai	June 22	...	...	...	...	...	36	174	105	13	2	...	...	330
Satara. Wai, Town	,, 22	...	...	...	...	...	14	52	21	...	...	...	...	87
Satara. Satara	,, 26*	...	...	...	...	...	...	142	107	34	5	...	...	288
Satara. Koragaon	,, 27	...	...	...	...	...	1	220	152	31	...	1	...	405
Satara. Walwa	,, 29*	...	...	...	...	...	...	405	233	2	...	...	...	640
Satara. Man	,, 30	...	...	...	...	...	2	72	21	126	7	2	...	230
Satara. Karad	July 3	...	...	...	...	...	...	163	254	11	1	1	...	430
Satara. Khanapur	,, 4	...	...	...	...	...	...	56	149	34	37	4	...	280
Satara. Satara, Town	,, 7	...	...	...	...	..	...	30	25	2	1	...	...	57
Satara. Jauli	,, 9	...	...	...	...	...	...	37	38	16	1	...	...	82
Satara. Patan	,, 14	...	...	...	...	...	...	29	156	37	2	...	...	224
Satara. Karad, Town	,, 16	...	...	...	...	...	...	21	24	1	..	...	...	46
Satara. Tasgaon	,, 17	...	...	...	...	...	...	104	201	56	5	1	...	387
Satara. Khatan	,, 18	...	...	..	...	...	...	10	102	53	15	...	...	180
Kaladgi. Indi	July 5	...	...	...	...	...	...	2	278	70	17	...	...	376
Kaladgi. Sindgi	,, 22	...	...	...	...	...	..	11	57	64	5	16	...	153
Kaladgi. Bagewari	Aug. 4	...	...	...	...	...	...	...	33	121	29	10	5	198
Kaladgi. Badami	,, 5	...	...	...	...	...	..	..	43	31	23	21	10	122
Kaladgi. Kaladgi, C. T.	,, 5	...	...	...	...	...	...	...	4	2	...	...	...	6
Kaladgi. Bijapur	,, 6	...	...	...	...	...	...	...	24	57	15	...	...	166
Kaladgi. Kaladgi, Town	,, 9	...	...	...	...	...	...	...	28	8	...	...	..	36
Kaladgi. Muddebihal	,, 12	...	...	...	...	...	...	...	5	32	34	33	6	133
Kaladgi. Bagalkot	,, 17	...	...	...	...	...	...	...	18	12	15	33	1	86
Kaladgi. Hangand	Sept. 4	...	...	...	...	...	...	...	...	12	15	39	16	89
Belgaum. Athni	July 15	...	...	...	...	...	...	36	96	38	34	...	3	207
Belgaum. Chikori	,, 29	...	...	...	...	...	...	13	114	130	78	7	...	342
Belgaum. Gokak	Aug. 9	...	...	...	...	...	...	...	65	103	246	51	26	491
Belgaum. Belgaum	,, 20	...	...	...	...	...	...	6	59	118	74	4	4	261
Belgaum. ,, Town	Sept. 11	...	...	...	...	...	...	...	...	2	8	2	...	17
Belgaum. Gokak, Town	,, 13	...	...	...	...	...	...	...	...	62	21	1	...	84
Belgaum. Sampgaon	,, 19	...	...	..	...	...	...	...	...	38	643	183	9	873
Belgaum. Bidi	,, 28	...	...	...	...	...	...	...	...	3	50	61	4	118
Belgaum. Parasgad	,, 29	...	...	...	...	...	...	...	...	2	269	72	4	341
Belgaum. Athni, Town	Oct. 15	...	...	...	...	...	...	...	...	...	1	...	...	1
Belgaum. Belgaum, C. T.	,, 31	...	...	...	...	...	...	...	...	...	1	...	...	1

* Registration first noted in June and July in the Sanitary Commissioner's Statement.

C.—Movement of the Spring Cholera with the monsoon into the unoccupied Districts of the Bombay Presidency—continued.

	Districts and Registering Circles.	Date of first death of 1875 in each Registering Circle.	Number of Cholera Deaths in each Month.												Total of 1875.
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Dharwar.	Nargund	Sept. 1	...	...	...	...	...	...	...	...	2	23	1	...	30
	Hubli	,, 6	...	...	...	...	...	...	...	...	59	33	9	5	106
	,, Town	,, 11	...	...	...	...	...	...	...	...	39	107	33	10	249
	Kalghatgi	,, 16	...	...	...	...	...	...	...	...	62	77	75	18	232
	Nawalgund	,, 17	...	...	...	...	...	...	...	...	17	467	8	...	492
	Dharwar	,, 18	...	...	...	...	...	...	...	...	21	270	204	101	596
	Ron	,, 22	...	...	...	...	...	...	...	...	13	21	...	...	34
	Dharwar, Town	,, 30	...	...	...	...	...	...	...	...	3	21	17	14	55
	Bankapur	Oct. 6	...	...	...	...	...	...	...	...	...	10	6	3	19
	Mugud	,, 22	...	...	...	...	...	...	...	...	...	18	53	35	106
	Gadag	,, 25	...	...	...	...	...	...	...	...	...	2	10	19	31
	Mangargi	,, 27	...	...	...	...	...	...	...	...	...	3	26	46	75
	Kod	Nov. 9	...	...	...	...	...	...	...	...	...	...	18	27	45
	Karajgi	,, 10	...	...	...	...	...	...	...	...	...	...	19	56	75
	Ranibennur	Dec. 7	...	...	...	...	...	...	...	...	...	...	...	5	5
	Hungul	,, 8	...	...	...	...	...	...	...	...	...	...	...	136	136
	Gadag, Town	,, 26	...	...	...	...	...	...	...	...	...	...	...	2	2
Ratnagiri.	Dapoli	April 15	...	...	...	8	3	...	6	145	134	73	136	15	520
	Rajapur	June 28	...	...	...	...	...	1	...	7	30	22	3	11	74
	Chiplun	July 22	...	...	...	...	...	...	7	32	25	4	...	...	69
	Khed	Aug. 2	...	...	...	...	...	...	...	33	8	12	12	...	47
	Ratnagiri	,, 18	...	...	...	...	...	...	...	19	18	29	13	8	89
	,, Town	(?)	...	...	...	...	...	...	...	...	14	5	8	1	28
	Deogarh	Sept. 16	...	...	...	...	...	...	...	...	16	20	1	1	38
	Malwan	Oct. 1	...	...	...	...	...	...	...	...	...	7	13	15	35
Kanara.	Mundgod	Oct. 12	...	...	...	...	...	...	...	...	...	3	...	1	4
	Haliyal	,, 22	...	...	...	...	...	...	...	...	...	3	10	3	16
	Karwar	Nov. 1	...	...	...	...	...	...	...	...	...	...	11	4	15
	Supa	,, 8	...	...	...	...	...	...	...	...	...	...	2	6	8
	Honawar	Dec. 21	...	...	...	...	...	...	...	...	...	...	...	4	4
	Bombay Presidency	...	1	1	10	795	5,359	10,375	12,908	8,619	3,495	3,551	1,640	819	47,573

Analysis of the registration of Madras showing the limits of the spring and monsoon cholera.

In 1875, 166 registration circles of Madras returned cholera. The date on which these commenced to register the invasion, is shown in the analysis which follows:—

Total circles registering . . . . . = 166

Deduct the circles of the northern province, which has no special cholera history in 1875 . . . . . = 10

,, also five circles of Malabar, which from January to May registered, probably in error, 9 cholera deaths between them . . . = 5

= 15

151

Deduct spring cholera of Southern India (January to June), geographically limited as below—

Tinnevelly 2; Tanjore 13; Trichinopoly 8; Coimbatore 3; Madura 1; South Arcot 8; Chingleput 2 . . . . = 37

Against 7,591 deaths to the south, caused by this spring cholera, to the north of this geographical line, 31 deaths only were registered between January and the end of June, in three circles of Cuddapah, which were entered on 3rd, 14th and 23rd June . . . = 3

= 40

111

In the monsoon season, from 1st July to 31st August, 91 circles were entered = 91

Leaving from 1st September to 31st December . . . . . = 20

Three circles of South Canara were entered in the extension of the Bombay cholera of November; and in 17 circles of districts occupied in July and August, the epidemic extended. These twenty circles were occupied, 8 in September, 4 in October, 5 in November, and 3 in December.

The 31 deaths of Cuddapah are all that we have to show in anticipation of the monsoon cholera covering the entire north of the Madras Presidency. Three circles gave these deaths, dating the commencement on 3rd, 14th and 23rd June. I observe that five circles of South Arcot and Chingleput were first invaded at the same time, namely, on 7th, 16th, 18th, 19th and 23rd June; and it is possible that the cholera of these three districts represented in homology if not actually, in this locality the cholera of 20th June of the Nizam's Dominions and the Berars.

This cholera of Cuddapah culminated in three additional circles before the middle of July, thus showing a special occupation of this area.

It is from the 15th July onwards that the invasion of monsoon cholera must be reckoned. Now, Bellary, Kurnool, half of Cuddapah, Nellore, North Arcot, Madras, Chingleput,* Mysore, the Neilgherries and Hyderabad first showed cholera.

Excluding the three circles of Cuddapah, 88 circles were entered, and these were the dates:—

			Circles.		
Now first entered	July	14th—20th	= 6		
		21st—30th	= 11		
	August	1st— 8th	= 30	65	88
		9th—15th	= 9		
		16th—31st	= 9		
Newly entered circles within the area of spring cholera.	July	14th—20th	= None		
		22nd—25th	= 5	23	
	August	1st— 8th	= 11		
		9th—31st	= 7		

Fifty-nine registration circles, out of 151, were first entered between 21st July, when active movement began to show, and the 8th August, when the climax of distribution was reached. Within the 8 days, 1st to 8th August, 41 circles of the Presidency were enveloped in this cholera; and the same phenomenon was simultaneously occurring from Tinnevelly to the Himalayas.

Analysing the death registration of the Presidency, these are the results:

Ganjam, Vizagapatam, Godavery and Kistna in the north-east, and Malabar in the south-west, taken together returned the deaths as under from January to June:—

January.	February.	March.	April.	May.	June.	
1	3	3	7	2	1	= 17

Dividing the remainder of the Presidency into two, a southern and a northern division, in the first six months the registration ran thus:

Northern, including Chingleput, Madras, North Arcot, Kurnool, Bellary, Cuddapah, and Nellore:—

January.	February.	March.	April.	May.	June.	
...	...	...	...	...	34	= 34

(31 in Cuddapah, and 3 in Chingleput.)

Southern, including South Arcot, Salem, Coimbatore, Trichinopoly, Tanjore, Madura and Tinnevelly:—

January.	February.	March.	April.	May.	June.	
7	13	3	77	1,631	5,857	= 7,588

It was late in July when the northern districts were entered. In the south the cholera was in full power; and, in fact, with the setting-in of the monsoon, the mortality of June was more than doubled in the southern districts. The invasion of August in the north is marked by nearly 5,000 deaths.

The death registration of the Presidency from July to December was distributed thus:

	July.	August.	September.	October.	November.	December.
North	932	4,951	5,692	3,210	1,993	2,382
South	13,227	7,923	7,678	10,196	12,616	12,107
Ganjam area	3	15	25	11	185	138
Malabar	...	29	146	579	1,227	1,583
Total	14,162	12,918	13,541	13,996	16,021	16,220

The invasion of Malabar is precisely the same as to date with the invasion of 1818, as shown on Scot's map. It falls in with the advance on the southern districts of Bombay. Note also how the southern districts of Madras fostered the cholera through October, November, and December, the months in which the very same tract was *first invaded* in 1818. With such a parallel before us, I should hesitate to assert that the cholera of 1875, invading from the north, did not cover this area for a second time in this year. Be this as it may, the phenomenon of approach to the conditions offered to cholera in its endemic home in this tract, as noted by Mr. Cornish, was again exemplified in this invasion.

Invasion of Madras. The sequence in which the area was covered—(*a*), by spring cholera; (*b*), by the monsoon cholera of 1875.

In further detail, these were the phenomena of distribution exhibited by this cholera in Southern India. The epidemic area of 1875 in Madras ended in the north with Nellore. The Ganjam cholera was entirely cut off from the epidemic tract of 1875 by a wide unoccupied area, the Vizagapatam, Kistna, and Godavery districts having

* The invasion of two circles in June resulted in 3 deaths only.

registered only 52 deaths in all, and most of these towards the end of the year when renewed invasion from the north might have been looked for.

The deaths of Malabar, 10 in number, spread over the first six months of 1875, may also be excluded, since they are in all probability due to error in registration.

From January to the end of May four districts of the Madras Presidency were affected, Tanjore, Tinnevelly, Trichinopoly and South Arcot. Tanjore registered 1,667 deaths, and the remaining three districts 64 deaths only between them.

All the remaining area of the Presidency was absolutely free from cholera.

In June four new districts got cholera—Madura and Coimbatore adjoining the already occupied area, and Chingleput and Cuddapah further to the north. Madura registered a *single case* on the 10th June; Coimbatore 60 deaths in three circles, beginning on 8th, 16th to 28th; Chingleput 3 deaths in two circles on 7th and 22nd June; and Cuddapah 31 deaths in three circles, commencing on 3rd, 14th and 23rd June.

Between 1st and 15th July two districts were added to the epidemic area—Salem in the south, and Nellore in the north—and gave respectively before the end of July, 135 and 151 deaths. Four circles of Salem were affected between 1st and 17th.

In Nellore, absolutely removed as regards geographical continuity from the suffering districts of Southern India and now first invaded, five circles were entered on these days of July—15th, 19th, 24th, 25th, 25th; and this was the first intimation and the true index of the monsoon cholera, destined to cover half the Presidency within a fortnight.

It is most interesting thus to see the monsoon area differentiated in two successive epidemics:

The tract in the north-east a natural area, and exhibited as such by the distribution of cholera in 1872 and 1875.

In his report on the epidemic of 1872, Mr. Cornish writes: "In January and February of 1872 there were indications of a movement of cholera in the endemic region of the Orissa country, and the extension of the disease to our northernmost district of Ganjam appeared to be imminent. The epidemic began in March in the zemindaries which lie to the north and near to the parts of the Orissa country already affected. In April cholera was reported from the Vizagapatam district. In June the epidemic had extended to the Godavery district. In August there appeared slight traces of the epidemic in the Kistna district, and also in Nellore, but beyond this latter district there was no southern progress. Since April 1872, the population south of the Kistna river has been practically free of epidemic cholera."

I need scarcely remark that this tract, which corresponds absolutely with the area depicted in the diagram illustrating monsoon influences on page 65 of my original report, is a naturally defined area, and the influences affecting it were well and accurately described by Scot in treating of the meteorology of the year 1818.*

The cholera of 1872 came down to the borders of the *Ellore talug*.

The Officiating Sanitary Commissioner for Madras takes up in 1875 the converse of this history, although with no intention of pointing its significance.

He writes: "The course has been described of an epidemic advancing westward, north-westward and northward. At the end of the year it had reached the southern part of the Kistna district. *All above the Ellore talug was free.* Between this district and Ganjam the Vizagapatam district is interposed, and in it no cholera appeared in 1875. It is certain, therefore, that the Ganjam epidemic is not connected with that of the south, and was imported from the north."

How and whence the cholera of the monsoon of 1875 moved on the Madras Presidency.

When the Sanitary Commissioner for Madras states it to be an obvious fact, that his epidemic of 1875 came from the south-east, the observation is that of a local observer. As an observer on a wider scale, I reckon this to be the statement of a theory merely, and not, what the Sanitary Commissioner claims for it, sound material for theory as to the origin and manner of propagation of cholera.

Mr. Cornish has well appreciated the facts attending the invasion of Madras from the north, in his résumé collecting together the results in 1818 and many succeeding epidemics;† and I do not doubt that he will recognise and record as parallel the events of 1875. Mr. Cornish, writing in 1870, rightly disclaims the idea that the tract of Southern India, the same in which cholera first re-appeared in 1875, is more than a habitat which localises epidemic cholera and fosters it when localised. The conditions here afforded to cholera approach in fact in character to those of the endemic area of Bengal. "If left to itself," he adds, "the cholera of Tanjore and Trichinopoly would soon die out. It is the importation of new seed, so to speak, into these localities that gives strength to the cholera and causes them to be reputed as cholera centres." That this area localised, in common with the northern districts of Bombay, an air-borne cholera in the end of 1874, or in the spring of 1875, is the theoretical view which I adopt, to account for the fact of the spring manifestation and of the diffusion of cholera over Southern India before July 20th, when the new wave entered from the west.

The invasion of July 1818, as illustrative.

The earliest districts of Madras affected in 1818 in the manifestation of monsoon cholera were those bordering on the tract in the north-east, which defines itself as a separate province. Between the 5th and 10th July 1818 the invasion occurred, on the very days on which the monsoon manifestation of the same year occurred in Aurungabad, Jaulnah, Khandesh and Pundurpore in the Bombay Presidency. The dates given are—Ellore, 5th July; Masulipatam, 10th

* Quoted at page 72 of my original report.

† Cholera Report of 1870, pages 3 to 6.

July; and Rajahmundry, 10th July. On 8th July, troops marching to Hyderabad were attacked on the banks of the Godavery.

In 1818, the advance subsequent to 20th July occupied a definite area on the east coast; Guntoor got its cholera on 30th July, and on 2nd August the northern villages of Nellore were entered. Ongole got its cholera on 14th, the same day on which Dharwar, Hoobly and Badamy in Bombay became affected. And here the cholera of the east coast stopped; and even Nellore, 70 miles to the south, got no cholera before the secondary movement late in September. To the north and west of the line there was no limit. From Hyderabad to Bombay, and from Dharwar to Nusseerabad cholera was universal between 20th July and 14th August 1818.

When Madras City was occupied in 1818, these were the dates as given by Scot. They indicate the covering of a great area in this week—Ghooty, 6th October; Cuddapah, 9th October; Madras, 8th October; Nellore, 3rd October; Bangalore, 12th October; Saint Thomas' Mount, Poonamalee, and Arcot, 13th October.

Epidemic lines fall only in obedience to great natural laws. By the operation of natural influences the cholera of the first move of August 1818 was repelled, the epidemic failing to reach Madras city before October 1818. In 1875, influences more extensive in their scope were in operation, which determined that in the same week of August Chingleput, Madras, South Arcot, Nellore, and the Neilgherries should be entered by the invading cholera. The fact that in the same week Nagpore, the Berars and several districts of Bombay became involved in this cholera I have tried to demonstrate. The natural area occupied was the same as in 1818, with the above reservation only; and this we know, that an advancing cholera will shape its lines or its limits only to the conditions afforded to it at the time of movement.

Knowing nothing in detail of the progress of the great cholera of this week beyond what was communicated in his letter, dated 4th August, by the Sanitary Commissioner for the Central Provinces, the telegram, dated 11th August, to which I have before referred, led me to infer and to tell the Government of India that in all probability the parallel of the same week of 1818 had been repeated, and that cholera had moved from one side of the continent of India to the other.

The aspects in the week of invasion were two—(*a*), advance over an entirely new area, and (*b*), the occupation for the first time of many registration circles in the tract of Southern India hitherto left unoccupied by the cholera which appeared in the spring. I will not pretend to decide to what extent the vast tract newly taken up was indebted for its occupation to the cholera of the south, or was affected by the great cholera of the north and west. I have placed here the parallel of 1818, which proves this, that advance from the north and west did occur in that year, seeing that no cholera existed at the time in Southern India, and I leave this detail to local observers to work out.

At the opposite extreme of the epidemic field the homologous phenomenon impelled the Sanitary Commissioner for the Punjab to write thus—

"It will be observed that the disease made very slow progress over the province till the week ending 31st July. After that date the mortality rose rapidly till the week ending 4th September, when it reached its climax."

The parallel phenomenon of the renewed activity of cholera in the Punjab in the same week. The extreme northern limit of the epidemic.

The significance of this is, that, but for a mere accident of geographical distribution, the history of 1856, 1861 and 1872 might have been repeated at Meean Meer and elsewhere in the province in 1875.

This quickening of cholera in the last ten days of July, from Lahore to Cape Comorin, was essentially a vital phenomenon. It is a homologue of the quickening of the 15th—25th April over a field nearly as wide, illustrated in the preceding Chapter; and to any observer intelligently apprehending this, it becomes an evident truth, that the subsequent movement of the first week of August was as little due to human agency as was the original appearance of the cholera of April and May.

Leaving out those districts of the Punjab which registered one and two deaths only throughout the year, the first district affected, entering the cholera area from the unoccupied area of Northern India, was Gujranwala. Gujranwala registered 8 deaths only in 1875. Here is the parallel of 1856 as given in my original Report, page 19: "Gujranwala, forty miles beyond Lahore, is reckoned as the limit of the invasion of 1856." And here is the parallel in 1861, for in this terrible year also cholera refused to proceed beyond this Gujranwala district, page 25: "Cholera did not spread epidemically through any of the districts north of Lahore."

The limitation of the cholera of 1875 in Northern India.

The unoccupied districts to the north and west were Gujrat, Jhelum, Shahpore, Jhung, Dera Ismail Khan, Hazara, Rawal Pindee, Peshawar, Kohat, and Bannu; and to the south and south-west—Montgomery Mozuffergurh, Mooltan, Dera Ghazee Khan, and Ferozepore. These 15 districts, registered 13 deaths, against a total of 6,246 registered for the province. The remaining 6,233 deaths were spread over 16 districts. This fact is a definite one, and the phenomenon is brought about solely by two circumstances—(*a*) what cholera is as an object of natural history, and (*b*) how cholera is subordinated to natural agencies.

The northern limit of invading cholera was in these three years the limit of monsoon influences at the date at which cholera was vitalised and in motion.

This is the limit upon which our attention is fixed in the course of every great epidemic. Our cantonment of Meean Meer lies on the border, and the alternative is presented to us, whether our soldiers shall be decimated by a cholera beginning between 30th July and 8th August, as in 1856, 1861 and 1872, or shall *absolutely* escape, as in 1860, 1869, and 1875.

The material adapted for invasion is not wanting in these years of exemption; we find cholera in full epidemic vigour in the areas occupied in the spring, and taking up as much of new ground as is permitted to it. The vehicle may be wanting, and without a vehicle cholera does not move; or the body of cholera may already have been diverted elsewhere, and the sweep of the monsoon over a tract from which cholera has been so removed conveys no material for an epidemic to regions beyond. Every epidemic movement during the course of advance lessens the chance of attack in a special locality. In 1869, Mecan Meer had not a single cholera admission; and in 1875 an attempt of cholera to establish itself on 20th October was abortive. In my report of 1872 the subject is thus alluded to:

"It is more than remarkable to find that in three great epidemics the outbreak at Mecan Meer should have commenced almost on the same day, the 7th August in 1856, the 6th August in 1861, and the 5th August in 1872. These facts show that, on empirical grounds alone, the Sanitary Commissioner was warranted in representing to Government, as he did in June 1869, that the occurrence of a single case of cholera in Mecan Meer in the last week of July or first week of August, such as occurred this year on 1st August, should be followed by the immediate evacuation of the cantonment."

In August 1875, as in August 1869, the Government of India asked my opinion as to the course which the cholera in active progress over Northern India was likely to follow. My note on the subject, handed to Government on 17th August, I shall quote afterwards.

The cholera of 1875 failed to strike Mecan Meer, and failed to occupy Lahore; this great city registered but 37 deaths in all, and the mortality commenced on 27th August, a date on which a fresh appearance of cholera occurred over a wide tract. But the *shadow* was not wanting. On 1st, 3rd, and 4th August, the Civil Surgeon notes the fact that four cases of true cholera did occur in the city, and that a clear interval of 22 days elapsed before the cholera again showed itself.

The shadow at Lahore was represented by a substantial movement affecting Amritsar. This cholera began at Amritsar on 21st July, and 800 people died before the close of the epidemic in October.

While Mecan Meer to the west escaped, the Umballa cantonment in the east of the Punjab became affected on 3rd August, perhaps for the very reason that the cholera which under other conditions would have expended itself 120 miles to the west in the same week was here stopped short in its westward course.

The first case in cantonments occurred on 30th July, and the outbreak in the Rifle Brigade, which had 33 cases of cholera, culminated on 5th August.

The movement of 20th June, affecting the Himalayas from Kangra to Ghurwal, had appropriated much of the material, which, but for this movement, would in August have affected some at least of the districts which I have noted as escaping in 1875. This Himalayan cholera could not make a retrograde movement on the Punjab, and, therefore, it was expended on the districts already occupied. What became of this Punjab cholera of 1875 I shall show in the next Chapter.

The Umballa outbreak was representative of the vast movement which we have traced from Amritsar to Madras City; the cholera of this week, moving over Madras, Bombay, the Berars, the Central Provinces and Upper India was in homological relation one and the same.

The homologous phenomenon of the affection of the British Soldier taken as a type, in the Armies of the three Presidencies.

We read the fact, even when taking as a type our few Europeans Troops dispersed over the great continent of India. These are the dates of the commencement of outbreaks—Dhurmsala, August 13th; Muttra, August 4th; Fort Gwalior, August 11th; Nowgong, August 13th; Lucknow, August 7th. Ten days after, come—Delhi, August 21st; Morar, August 23rd; Ferozepore, August 24th; and Meerut, August 27th. Or to take the Bombay and Madras Presidencies—Neemuch, July 28th; Ahmednagar, July 31st; Poona, August 8th; Kirkee, August 11th; Mhow, August 14th; and Madras, August 24th.

Following upon this cholera of August in Upper India came, in the first week of September 1875, a secondary movement of cholera, a phenomenon to which frequent allusion has been made in writing the history of other epidemics.* In this the Sialkot district was first entered, a movement of importance as suggesting further advance into the Cashmere territory beyond. Various corps in Meerut, Moradabad, Lucknow and Fyzabad, were first affected in this week.

Renewed activity in Upper India at dates subsequent to the first week of August.

The deaths of the Punjab declined to 129 in November and to 1 in December. The Gurdaspur district retained its cholera longest, giving in November 85 out of the total of 129.

South of the Jumna cholera was dead in the same months. No death was registered after October.

The deaths of the cholera of 1875 in Upper, Central, and Western India, while it remained in vital activity in the extreme south.

Cholera was threatening again to appear in Goruckpore and Busti, but in the other districts in the east of the North-Western Provinces, 68 deaths only appear in November and 7 in December. In the Western Division, Bareilly, Shahjehanpore, Budaun, and Bijnor continued in the early part of November to register cholera deaths, giving 585 deaths out of a total, for the area, of 700. The total mortality declined to 103 in December.

In the Central Provinces, Raipore and Bhandara still retained in November the cholera of the year, giving 121 deaths; the districts to the south, Chanda and Wardha, gave 80 deaths; and Betul, Hoshungabad, and Nimar gave the remainder for the province,—36 deaths. Thirteen

* See pages 33 to 36 of the Report for 1869.

districts registered no cholera deaths in November. In December, the total mortality for the province was 58, Raipore giving 34 out of this total.

In the Berars, 52 deaths appear in November, and these were confined to two districts; the last occurred on 18th November. No death was registered in December.

In Bombay, Dharwar gave 477 out of 819 deaths from the Presidency in December; and in January 1876, the same district gave 640 out of a total of 900. Elsewhere the cholera was dormant or at a minimum.

As in 1818, the Madras Presidency shows in its registration an increase, and not a decline, in the last quarter of 1875; and most districts which at this season retained it, carried cholera into and throughout 1876. The deaths of November and December were more numerous than those of any month of 1875, as may be seen by reference to the registration table. The same natural phenomenon is shown in the registration for the same quarter of 1876 when the deaths rose from 3,280 in October to 31,183 in December, an aspect of cholera which leads us back to the facies shown in the home of endemic cholera at sea-level in Eastern Bengal.

CHAPTER V.

LEADING FEATURES OF THE CHOLERA OF 1876.

I regard it as most important that this inquiry into the method of which the area embracing the whole of Hindostan is occupied by an invading cholera should be complicated as little as possible by secondary questions. I prefer, therefore, to leave for consideration at some future time the behaviour of cholera in Bombay and Madras in 1876; and all the more that I am as yet unacquainted with more than the outline of its history.

The great famine of 1876-77 we know to have been rendered more terrible by the ravages of cholera; and a study of the aspect in which cholera specially manifests itself in a famine-stricken population, where predisposition is so palpable, may do something towards increasing our knowledge of the means by which the diffusion of cholera occurs in other communities.

Great development of cholera in the endemic area in the end of 1876. Was there any fresh distribution of cholera over India coincident with this manifestation?

But in case the local observers in Southern India should allow the special object of their research to be obscured by the generally prevailing mortality, and should overlook the possibility that, in 1877, they have to deal, not with the cholera of 1875, but with the cholera of a new invasion, I take the opportunity to call attention to certain features in the cholera of 1876 which seem to me to demand notice.

The submergence by the cyclone-wave of 31st October, of the great cholera-breeding tract of Eastern Bengal, in the very week when it was prepared to throw off its cholera, made it almost certain that an epidemic would follow over the submerged tract and the adjoining districts: and these were the deaths registered in the last quarter of 1876:

	October.	November.	December.
Backergunge, Noakholly, Chittagong and Jessore. . . .	514	10,936	31,232
Five districts of Eastern Bengal, affected in a minor degree. . .	1,776	7,622	8,128
Eight districts lying to the north of these. .	256	702	1,210

These figures show that little extension took place towards the north. No abnormal increase of cholera appeared in Behar, Chota Nagpore, the Sonthal Country or Orissa, at this time; and Calcutta, Nuddea and the districts west of the Hooghly sympathised little with the affected eastern districts.

The cholera deaths of the last quarter of 1876 of Bengal Proper, may be tabulated thus:—

Districts showing only the increase which is normal for the season.

	October.	November.	December.
Calcutta and 24-Pergunnahs . .	63	1,101	2,083
Moorshedabad and Nuddea . .	235	2,150	2,022
Seven districts west of the Hooghly	83	485	1,042
Eight districts of Northern Bengal .	256	702	1,210

Districts epidemically affected in a minor degree.

Eastern Bengal, five districts . .	1,776	7,622	8,128

Districts showing great and abnormal increase.

Jessore	66	2,927	5,218
Backergunge	399	1,134	9,295
Noakholly and Chittagong . .	49	6,875	16,719
Total of this area . .	514	10,936	31,232

Districts scarcely affected by Cholera.

Behar Provinces	373	206	304
Chota Nagpore	83	8	7
Sonthal districts	78	345	47
Orissa	274	1,001	479
Province of Bengal . .	3,735	24,556	46,554

Compare with these totals the total deaths of the Madras Presidency for the same months of 1876:—

	October.	November.	December.
Cholera deaths of the Madras Presidency	3,280	7,894	31,183

The north-eastern districts,—Ganjam, Vizagapatam and Godavery, in common with Orissa, showed no increase of cholera at this time, a natural phenomenon consistently observed in the registration of the last seven years. Mysore and Coorg, the Neilgherries, Madras and South Canara showed no tendency to encourage the growth, or spread, of cholera. But from Nellore downwards every district of the east coast and every district of Southern India developed this cholera of the north-east monsoon. A single glance at the death-table of 1876 will suggest that this great renewal of cholera was but a revitalisation of a cholera persistent in the same districts throughout 1876, falling to a minimum in September and October, and increasing in intensity with seasonal influences, just as in 1818.

The increase over Madras at this time may have been only that normal for the season, and related to a cholera already present.

But it is at least worth suggesting, that a new body of cholera from Eastern Bengal may have reinforced the invading body of 1875 in October 1876, coincident with the epidemic manifestation over the endemic area. If cholera progressed by human agency, we might admit that the fact of the connecting area, Orissa and Ganjam, being uncovered was opposed to the suggestion. But with the history of the occupation of India in the spring of 1875 to guide us, the possibility of renewed invasion may be admitted, although the indices be few, since the material for invasion, the vehicle and the directing agency, were all provided in 1876.

In connection with this, it is very curious, and probably significant, to find the medical officers of eight districts of the Central Provinces noting in their jail returns of this period, the circumstance that cholera had shown itself. Had this cholera been usual at the season or confined to one or two districts, it might have been of little import. But the wide diffusion and the abnormal appearance of cholera in twelve circles of the Akola district of the Berars at the same time—the first cases of the year—point to the possibility of the movement over this area of a new body of cholera, at the usual date of invasion—a movement with which the Bombay cholera of 1877 may be associated, which has caused 2,500 deaths in the city of Bombay alone.

Shadow of cholera in the Central Provinces at this time.

It is right to state that the Sanitary Commissioner for the Central Provinces is inclined to attribute to this cholera a local significance merely, regarding it as a cholera radiating from the Ramtek fair, where the people assembled were attacked at this time.

In Banda also, which I am always inclined to regard as an index station, a localised outbreak in the Madras Regiment, commencing on 16th October 1876, occurred; and in this and the adjoining districts, cholera was localised up to September 1877.

Banda cholera of October 1876.

What would seem to favor the suggestion of renewal in the case of Bombay is the circumstance, that the great bulk of the cholera mortality of 1876 was confined to the area invaded with the monsoon of 1875, and that cholera did not reappear in vigour in the districts which it evacuated in the spring of 1875; Khandesh, for example, which lost its cholera in August 1875, registered only 29 deaths in 1876, against 6,224 in 1875. Cholera was reproduced in 1876 over the whole area occupied in 1875, but the features, when reproduced, were those of a declining epidemic, and it is contrary to experience that a cholera which in its second year has showed such characteristics shall in the third year of invasion blaze up, as did this cholera of Bombay of 1877.

Aspect of cholera in Bombay in 1876. Was the cholera of the spring of 1877 of the Deccan, a new cholera?

Central Area of the Bombay Presidency, invaded in the Spring of 1875.

	Cholera deaths of 1875 and 1876 contracted.	
	1875. Year of invasion.	1876. Year of reproduction.
Khandesh	6,224	29
Nassik	2,812	333
Ahmednagar	4,933	1,115
Poona	4,649	719
Tanna	5,969	693
Colaba	1,453	70

The force of the cholera of 1876 was, in fact, thrown upon the districts invaded with the monsoon of 1875, and chiefly those occupied latest in the year. Belgaum, Dharwar, Kaladgi, and Kanara gave 18,000 deaths; and Satara and Sholapore adjoining upwards of 4,000 deaths, out of a total for the Presidency of 32,000. A normal revitalisation in the spring gave 6,274 deaths towards the total in the five northern districts—Surat, Broach, Kaira, Panch Mahals, and Ahmedabad. Thur and Parkur, in which 6 cholera deaths had occurred in 1875, gave 88 cholera deaths in the same months of 1876. But no cholera death was registered throughout Scinde in 1876, a circumstance to be taken into account when we come to ask whence came the cholera of Candahar of April 1876, and the cholera of April from which our troops suffered so heavily in the Bolan Pass. The deaths registered as occurring in Scinde in November and December 1875, 43 in number, occurred at Ghorabari on the coast, and seem to have occurred in an isolated outbreak, and may or may not have been significant of the passage of cholera towards the west.

In the North-Western Provinces the aspect of the cholera of 1876 was altogether that of a second-year cholera, and not of a cholera of invasion. I was much struck with this facies of cholera in making up the jail statistics of this great area. The entire jail administrations of Oudh and the North-Western Provinces gave but a single cholera death in 1876; and yet

Aspect of the cholera of 1876 in the North-Western Provinces and Oudh.

48,000 deaths were registered among the general population within the same area. It is the rule, and not the exception, that when cholera is in movement, its presence is manifested in our types; and we expect to find the manifestation. But in 1876, with the report of the presence of cholera in every district, our types in a great measure failed to show it; and this, because the cholera was localised or limited in its movement. The deaths in the European army of Bengal of 1876 are naturally grouped in two classes. Out of 115 deaths, 80 were caused by the onward movement of cholera towards the frontier; 5 occurred within the endemic area; and the remaining 30 deaths were spread over 10 stations, showing how trifling was the tendency to severe outbreaks with this cholera of the second year.

The province of Oudh lost 22,000, and suffered generally, although the chief loss fell on the three districts—Rai Bareilly, Gonda, and Bahraich—which registered 14,000 deaths. The districts of Oudh furthest to the west, approaching the line of 80° east longitude, Sitapur and Hardoi, registered only 60 deaths between them; and this was the eastern limit, and the natural limit of a great province of exemption in 1876, which ended at Lahore in the west.

The only exception to this was that certain districts under the hills, and in the hills, still retained cholera; Moradabad and Bareilly registered 3,700 deaths, the Terai Pergunnahs 669, and Kumaon 808 deaths, showing that a large body of cholera still remained incubating in this tract. We have no record in 1876 of cholera surviving in the hills between Kumaon in the east, and Cashmere in the west. There is no history of cholera in the Himalayas except as a cholera of advance; no retrogression over the tract occupied in 1875 occurred, and no cholera within the same area came forward by local growth.

The onward progress in 1876 of the cholera of 1875 in Northern India. The advance into Cashmere and beyond the Frontier.

There remains therefore to be considered only the behaviour of the invading cholera which fell in August 1875 behind the aërial wall, and was cut short in its progress towards the north-western frontier.

Would the advancing cholera of August 1875 be restrained by the natural barrier raised against it, as in 1856 and 1861? This was the leading question which I placed before myself in answering the enquiries of Government, as to what was likely to be the role of cholera from 12th August 1875 onwards till the end of the cholera season.

I give these anticipations as presented to Government on 17th August 1875.

The possibility of limitation anticipated in August 1875.

In writing this paper I was compelled to carry my anticipations sixteen months in advance. The case stood thus,—Given the conditions of 1856 and 1861, cholera may be expected in 1876, between the limit of advance in 1875 and the Frontier, and it will persist, should it enter the Peshawar valley up to the first week of November 1876; cholera will appear in Cashmere in the spring, and the Murree Hills will get cholera in August as in 1858 and 1862; and at any time after July cholera may sweep down upon Peshawar, and from past experience we can foretell approximately what the result will be should this occur.

Thus, then, I wrote while the epidemic was in full vitality, and while six weeks of epidemic life were still before it:

The course of Cholera in 1875 and 1876 in Northern India as anticipated in August 1875.

"We have no information of further extension in the Punjab up to the present time. The cholera now going on at Amritsar will not spread from Amritsar as a focus. What we have to fear is further movement, such as I had to describe in 1872 as leading to the simultaneous appearance of the epidemic from Bundelkhund to Kohat on 18th August, and in many other epidemics as occurring in the first week of September. The week which we dread most, 1st to 8th August, is past, and the chances of escape for the stations of Northern India are increased by exemption to so late a date. I have but to point, however, to the experience of 1872, as indicating that movement, and the further advance of cholera may take place any day for three weeks to come. Many of our greatest epidemics failed to reach the higher stations of the Punjab, and it is quite possible that the same exemption may occur in 1875. So long as cholera prevails south of the Jumna, Meerut cannot be considered safe,* and it is well to recollect that it was one of the stations that first showed cholera, on 18th August in 1872. Whether Morar will suffer or not is doubtful. Two cases have already occurred at Gwalior Fort, and today three cases are reported among the natives in the Lushkur. In my mind the occurrences of 1875 are associated with those of 1865, and I feel inclined to refer passing events to the parallels of this year. Morar gave 12 cases in August 1865, and, as in 1875, Gwalior Fortress 2; and I should not be surprised to find as many cases in the current month.†

"*If another week passes without renewed movement*, we may, I think, hope for the escape of Jullundur, Ferozepore and Meean Meer, and all stations north of the Jhelum; in other words, that cholera will be limited by the blue line which I have drawn on the map‡; and still in the absence of movement, we trust that it will not attack any new station lying within the line.

"The great body of cholera pushed towards and into the hills is so much materies diverted from the plains; and while the diversion has not been total, we may, I think, reckon on comparative immunity in relation to the withdrawal of so much cholera.

"The natural advance of this cholera may lead it into Cashmere. And the re-appearance of cholera in May of the year following has, in Northern India, very often followed limitation, such as may occur in this year, a contingency not to be overlooked."

* Meerut was attacked on 26th August.
† Morar was attacked on 23rd August, and 19 deaths occurred.
‡ Which accompanied this Memorandum.

This simple statement was realised in all its leading features. Ferozepore, Meean Meer, and Jullundur absolutely escaped throughout the monsoon season, with this exception, that at Ferozepore three cases of cholera did occur on 23rd, 24th and 26th August, an extraordinary fact, when we consider that out of half a million of inhabitants, only one death from cholera was recorded in 1875. The cholera knew its limit behind the Jhelum and kept it; it moved on Cashmere and filled the valley with the material of the epidemic of 1876; on 9th April 1876 we find it in epidemic life beyond the Frontier, in the Bolan Pass and in Candahar; Murree was attacked with the monsoon of 1876; and the Peshawar Valley was entered, and retained its cholera up to the very same week as in 1858 and 1862.

How the anticipations formed were realised.

These contingencies for 1876 were discussed in detail before leaving India in October 1875; and also with several authorities in England in the spring, before the events of the year had begun to declare themselves.

Let me then show what did occur in 1876, and the meaning of the different occurrences.

In 1856 and 1861, we had not the deaths of the general population to show us plainly and visibly the geography of the abruptly defined cholera line at the north-western limit. This is supplied in the registration of 1875; and the contrast showing the distribution of the mortality in the two years 1875 and 1876 gives the illustration in perfection, and I trust the lesson which it teaches may never be forgotten.

This is what it teaches: The advance of cholera in 1875 up to a certain limit, which was the same reached in 1856 and 1861; the exemption of all districts to the south, where the six districts bordering on the desert registered in all 5 deaths in 1875; the exemption of every district beyond Gujranwala, 8 deaths being the total for the entire tract beyond; the aborted attempt, clearly enough shadowed out, to revive in the districts west of Delhi in the spring of 1876; the actual commencement of the cholera of 1876 at the aërial wall; the continued exemption in 1876 of the tract to the south exempted in 1875; the occupation of every district from Lahore northwards; and the absolute failure of the cholera to assume a retrograde movement over the districts occupied in 1875, affording a crucial example of the truth, that epidemic cholera in India does not radiate.

The limitation in the north-west; the aërial wall which retained the cholera. Illustration of what is meant by an aërial wall.

The Geography of the Cholera of the General Population of the Punjab in 1875 and 1876 contrasted, illustrating what is meant by an Aerial Wall, and typical against the theory of the Radiation of Cholera.

Districts.	Cholera Deaths of 1875.												Total Deaths.	Districts.	Cholera Deaths of 1876.												Total Deaths.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Gurgaon	...	...	..	...	1	49	116	189	162	9	..	...	526	Gurgaon	1	...	...	1	...	10	1	...	...	...	...	...	13
Delhi	1	...	...	...	12	29	70	51	106	10	8	...	287	Delhi	...	1	...	1	...	...	...	...	...	...	...	...	2
Rohtak	1	...	...	...	17	72	130	6	1	3	9	...	239	Rohtak	...	...	...	...	2	15	...	...	...	...	...	...	17
Hissar	...	...	...	1	4	...	4	49	16	67	1	...	142	Hissar	...	...	...	...	...	...	...	...	...	...	...	...	..
Sirsa	...	...	...	...	...	3	12	10	1	...	...	...	26	Sirsa	...	...	...	...	...	1	...	...	...	...	...	...	1
Karnal	...	...	...	...	...	...	25	12	32	3	...	...	72	Karnal	...	...	1	...	...	...	...	...	...	...	...	...	1
Umballa	...	1	...	3	2	109	99	64	60	11	...	...	349	Umballa	...	2	1	1	3	...	...	...	...	...	...	...	7
Simla	...	...	...	...	...	4	127	27	...	...	...	...	158	Simla	...	...	...	...	...	...	...	...	...	...	...	...	..
Ludhiana	...	...	1	1	...	...	30	31	20	...	...	...	83	Ludhiana	...	...	...	...	1	...	1	...	...	...	...	...	2
Ferozepore	...	...	...	...	...	...	...	...	...	...	1	...	1	Ferozepore	...	...	...	...	...	...	...	...	...	...	...	...	..
Montgomery	...	...	...	...	...	...	...	1	...	1	...	...	2	Montgomery	...	...	...	...	...	...	...	1	...	...	...	...	1
Mooltan	...	...	...	...	...	...	1	...	...	...	...	...	1	Mooltan	...	...	...	...	...	...	...	...	...	32	...	...	32
Muzaffargarh	...	...	...	...	...	...	...	...	...	...	...	...	...	Muzaffargarh	...	...	...	...	...	...	...	...	...	...	...	...	..
Jhang	...	...	...	...	...	...	...	...	...	...	...	...	..	Jhang	...	...	...	...	...	...	...	...	3	...	...	...	3
Dera Ghazi Khan	...	...	...	...	1	...	...	...	...	...	...	...	1	Dera Ghazi Khan	...	...	...	...	1	3	...	1	...	...	...	...	5
Jullundur	...	...	...	...	1	...	11	12	32	7	..	...	63	Jullundur	...	...	...	...	...	...	...	...	...	...	...	...	..
Hoshiarpur	...	...	2	...	...	...	5	34	97	98	..	...	236	Hoshiarpur	...	...	...	...	...	...	...	...	...	...	...	...	..
Kangra	...	2	...	1	1	11	122	288	197	81	7	...	710	Kangra	1	1	...	...	...	1	...	...	1	...	...	...	3
Gurdaspur	1	...	...	...	...	...	1	225	557	613	85	..	1,482	Gurdaspur	...	...	...	...	...	1	1	...	1	...	11	...	14
Amritsar	...	...	...	...	...	1	28	504	583	149	3	1	1,269	Amritsar	...	...	...	1	...	1	1	8	19	...	...	...	30
Lahore	...	...	1	1	1	1	1	12	177	82	12	...	288	Lahore	2	2	...	2	...	2	119	474	117	4	...	...	722
Sialkot	1	...	...	...	...	...	...	...	74	216	3	...	294	Sialkot	...	...	...	...	...	...	...	42	388	33	..	...	463
Gujranwala	..	...	...	1	...	...	...	...	...	8	...	...	9	Gujranwala	...	...	...	...	1	1	2	66	168	33	...	1	272
Gujrat	...	...	...	1	...	...	...	...	1	...	...	...	2	Gujrat	...	...	...	...	...	2	53	191	283	43	..	...	572
Shahpur	...	..	...	...	...	...	...	...	...	...	...	...	...	Shahpur	...	..	...	..	...	157	291	41	15	...	...	...	504
Jhelum	...	...	...	...	1	...	...	...	...	...	...	...	1	Jhelum	...	...	...	...	...	40	42	132	63	24	..	..	301
Rawalpindi	...	...	...	...	...	1	...	...	...	...	...	...	1	Rawalpindi	...	...	...	...	...	2	109	343	160	11	1	...	626
Hazara	...	...	...	...	...	...	...	...	...	...	...	...	...	Hazara	...	...	...	...	...	...	4	50	93	92	6	...	245
Peshawar	...	1	...	...	...	...	1	...	..	..	...	...	2	Peshawar	...	...	...	...	...	...	...	...	61	510	67	...	638
Kohat	...	...	...	...	...	...	...	...	...	...	...	...	...	Kohat	...	...	...	...	...	..	..	...	...	3	19	2	24
Bannu	...	..	...	...	...	...	...	...	...	...	...	...	...	Bannu	...	...	...	...	...	..	463	47	18	375	95	...	998
Dera Ismail Khan	...	...	...	...	1	...	...	...	1	...	...	...	2	Dera Ismail Khan	...	1	...	..	...	...	9	...	32	117	81	...	240

Contrast with this statement the registration of 1872 and 1873 in the preceding epidemic. In this epidemic, as in 1869, natural influences determined that there should be no aerial wall in the north-west; and, accordingly, the cholera swept the Punjab in the year from Delhi to the frontier. The material was taken up and removed beyond the frontier as completely as if a flight of locusts or of birds, had taken their departure from their resting place of the previous year. In 1873, there was no rise behind an aërial wall, no reappearance of cholera in Lahore, Sialkot and Gujranwala as a base of departure. As in 1876, the seed sown in the canal districts west of Delhi, tried abortively to come forward into life. But the whole of the Punjab failed to register more than 149 deaths in 1873, of which these Delhi districts gave 112.

Cholera of the Bolan Pass of 9th April 1876. Probably an invading cholera of November 1875.

Whence came the cholera of the spring of the last week of March 1876, which attacked our men with such severity in the Bolan Pass on 9th April? Beyond the Jhelum, only a single cholera death was registered in the first five months of 1876; throughout Scinde not a case of cholera was registered in 1876. The practical mind naturally enquires, if cholera advances by human agency how can we have cholera widely epidemic over Central Asia, which we know to have come from India, when it is certain that there is no connecting link and a vacant gap many hundreds of miles wide between. In a case like this, no one can assume that a cholera dormant for a long series of years has come to life. New distribution has taken place, whatever be the theory employed to account for the fact.

My belief is, that this, which was certainly a cholera of re-vitalisation, was distributed late in 1875. In the very week to which I have so often alluded, and after cholera had died out almost entirely over Northern India, our indices called upon us to recognise that something new was happening.

Meean Meer, as I have said, had not a single case of cholera throughout the monsoon season; but on 20th October cholera appeared, and between the 20th and 24th, 7 cases occurred in the European regiment. And this is to be noted, that no such occurrence had happened since Meean Meer was made a cantonment.

I have said that the general population of the Ferozepore district registered only one death in 1875, and that, notwithstanding this, our cantonment gave 3 admissions in August. On October 7th, a fourth case showed itself. And then, coincidently with the outbreak at Meean Meer, cholera appeared in the regiment and battery, and among the native population of the Cantonment. In the regiment it appeared on 27th October, among the natives on 1st November, and in the battery on 6th November.

After the great epidemic of the monsoon season of 1856, a case occurred illustrating the same phenomenon of advance beyond the epidemic limit of the year in Northern India, in the last week of October. In this week a Sikh Regiment, marching from Hazara to Dera Ismael Khan was attacked; and neither before nor after was cholera reported north of the Jhelum.

It was probably at this time that movement into Cashmere occurred; and here the cholera was fostered into life very early in the low-lying tracts, cases having appeared even in the last days of December. This cholera lasted throughout 1876 up to October, and the registration by the native authorities gave 5,580 deaths.

Parallel of the Cashmere cholera of April 1876, invading in the end of 1875.

On 15th April, Major Henderson wrote, reporting that cholera was epidemic in the valley of Cashmere. Up to the 7th, 5 deaths had occurred in Srinagar; and on that day 13 seizures occurred. And beyond the city also cholera was appearing, and 121 deaths had been reported from outlying districts.

Major Henderson continues: "It appears to be a bad feature in the present outbreak that the disease has appeared in all parts of the valley almost simultaneously." He adds: "There has been a good deal of rain all over Cashmere till within the last three or four days."

Afterwards followed the interval preceding the monsoon burst. Dr. Bellew writes: "In Srinagar it raged till May, when it gradually declined, and it seems to have remained quiescent during June. In July it burst out fresh, and continued with unabated deadliness up to the middle of October."

With the monsoon revitalisation, extension occurred. Dr. Cunningham, of the 15th Sikhs, deputed to Jummoo to assist during the cholera, writes: "The first decided case of cholera occurred on 4th August, and the epidemic reached its maximum about the middle of the month. Previous to this outbreak there was no cholera in the surrounding villages, or on the route between Srinagar and Jummoo. In Jummoo 600 people were attacked. On 23rd August, with a change of wind from east to west, and a change in the atmosphere quite appreciable even at Sialkot, a sudden and great diminution of this cholera of Jummoo took place."

This movement subsequent to 20th October resulting in re-vitalisation in the first week of April in the year following, I take to be the homologue of the phenomena attending the movement of cholera from the east upon Western India between 20th October and 10th November studied in the previous chapters, which is revitalised before the middle of April. In this light, I reckon that the cholera of Candahar of 9th April, and of Cashmere of 7th April, was the homological equivalent of the cholera of the same day of 1875, amongst the railway labourers at Indore, a true re-vitalisation of a cholera distributed months before.

The significance of the April cholera of the frontier of 1876, illustrated by the epidemic phenomena of April 1875.

The following is the homologue in one of our types in 1876. From Cawnpore to the frontier one solitary case of cholera showed itself in the spring of 1876, from January to May, in the European Army. Delhi was the locality; the date 10th April.

The medical officer says regarding it:

"The first point to be specially noted, is the total absence of even a rumour of cholera in the district at the time of the occurrence of this case. The last case happened on the 10th November of last year; that case also was a solitary one, a native, who was attacked and died after the fort had been apparently free from cholera since the 10th September 1875. There were no premonitions of any kind, such as general malaise, among the men, nor, so far as is known, were there any unusual or important local sanitary defects likely to prove injurious to the health of the men."

Parallel on the frontier in April 1862.

It was in this very week of April that cholera first appeared in the Bannu district, beyond the epidemic limit of 1861, heralding the great advance which occurred three months later. The same may be expected in future epidemics, and in this aspect the occurrence is brought about by natural causes and not by chance importation.

Advance on Northern India with the monsoon of 1876. The Murree cholera of July.

It is, as a rule, with the setting in of the monsoon that cholera appears in the Murree Hills. Murree has suffered in 1858, 1867, 1872 and 1876; and except in 1857, when two fatal cases were observed on 17th and 28th May, the outbreak has occurred after the middle of June. I believe, however, that here, as elsewhere in the hills, forerunners indicative of cholera will, in years like 1858 and 1862 and 1876, be found in May, and early in June; and Dr. Bellew justly regards as cholera a few deaths of May and June 1876, attributed to other causes.

Dr. Bellew concludes that "the disease, or its cause, was not imported into Murree, but originated there independently." By this it is meant, I presume, that human agency was not the cause of its introduction. The first cases in Murree occurred on 13th and 15th July; and the depôt was attacked on 24th. The working parties at Camp Gharial were attacked on 8th August.

General advance over Northern India in 1876 in the same week in which the general advance over so many tracts of India in 1875 occurred.

In Rawalpindi, the same regiment which furnished these parties was attacked on 5th August, the first case in the city having occurred on 27th July.

In Hazara, the first case was recorded in 3 circles—on 30th July, 1st August and 3rd August.

In Jhang, the first case occurred on 5th August; in Sialkot and Gujranwala on 14th August.

Here we are writing the history of a cholera invading and in motion from Jummoo and Sialkot to Hazara and Rawalpindi,* in the very same week in which in 1875 we traced the epidemic leap across the cantonment of India from west to east. It is unnecessary that I should point out how the phenomena of both years and both areas are homologous.

Had this cholera of the first week of August been lying in the east of the Punjab, or in the districts west of Delhi, we know well what the sequence of events would have been, and the garrison of Meean Meer would in all probability have suffered as in 1862. But with this cholera there was no power of retrogression, and Meean Meer had not a single case of cholera in 1876.

Every one knows as a fact that the Rawalpindi district has little tendency to localise a moving cholera. Summarising the office records of cholera from 1849 onwards, the officer of the Quarter Master General's Department who reports, writes regarding Rawalpindi: "No serious outbreak having ever occurred at this station there is little information to be gained. Both in 1872 and 1876, the few cases that took place were nearly simultaneous with, or a little subsequent to, the outbreak at Murree. Campbellpore and Talagaon in the same command have never yet recorded a case of cholera."

This known immunity extends to Nowshera beyond the Indus, and it was on this fact that movement in this direction from Peshawar has been so repeatedly urged. This has been constantly reiterated, and thus I wrote in my last report, of 1872:

Nowshera exempted in this advance, and throughout 1876.

"The Peshawar valley localises the air-borne miasm, and not the cantonment site alone. Hence movement in the valley is not adequate to the case. The 93rd Highlanders in 1862, and all corps encamped on 18th September 1869, were struck anew while in camp in the valley. The line of escape is to the east. The statistics of Nowshera indicate this most positively; and the occupation of the elevated site (4,400 feet) at Cherat, in the same direction, seems to have effected all that was hoped for when it was proposed as a refuge for the Peshawar troops. Tested in 1869, and again in 1872, Cherat has fulfilled all anticipations." †

And these in 1876 were the fruits of the measures based on these facts and recommendations; for it was justly inferred that cholera was destined to occupy the Peshawar valley at some date in 1876.

The officer of the Quarter Master General's Department, who reports on the outbreak of 1876, writes: "The known immunity of Nowshera was taken advantage of, and every man

* Cholera was epidemic in Caubul also at this date, while the Peshawar valley and the frontier districts remained free.

† See pages 42—46 of my Cholera Report of 1872.

that could be spared from Peshawar was marched to Nowshera on 4th August; and with the large detachments at Cherat, the British garrison was reduced to a minimum. Cherat and Nowshera were again remarkable for their immunity from the epidemic, and no cases occurred in either place, notwithstanding the fact that cholera was actually brought into the latter cantonment."

Invasion of the Peshawar valley in 1876. Aspect of the invasion.

The aspect of cholera in the Peshawar valley in 1876 differed in no respect from that of former years. On 10th August, when the districts lying to the east began to tell that cholera was approaching or had moved upon the tract then occupied, the shadow appeared in the Peshawar cantonment, where a single fatal case was noticed; just as in 1869, when a single case, on 14th August, foretold that cholera might be expected.

There is no certainty as to the date at which the Peshawar valley may be entered in the monsoon season: in 1862, it was in the first week of July; in 1869, it was in the first week of September; in 1876, it was on 27th September; and in 1858 and 1872, it was in the first week of October. No credence is therefore to be attached to any statement which professes to predict the date at which Peshawar shall be attacked.

As on all other occasions, in 1876 the outburst was simultaneous in the cantonment. In the city a single death was reported on 13th September; and from 16th to 20th September, 17 cases and 8 deaths showed that cholera was existing. In my report of 1869 I have tried to trace the period for which a cholera thus showing its existence, incubates in the valley, before causing a general and simultaneous outbreak. Reckoning the 16th to 20th as the date of appearance, the parallel seems to hold very exactly. A period of eleven or twelve days appears to be normal, and the possibility of employing this previous opportunity in moving out of the valley indicates that this interval should be recorded in every epidemic, if it should be found. The case is stated thus in my report for 1869:

"The first case of cholera recognised in Peshawar city was on 1st September, and on the 13th 92 persons died.

"On the 11th September the area of the Peshawar valley occupied by the cantonment was visibly affected, and suddenly on the 18th every corps in cantonment and in camp was struck by cholera. The General Commanding reports: 'It burst as a storm over the station.' I have shown how in Scinde, far to the south, the cholera of the same invasion culminated on the very same day. This is, I think, an instance of what I have described under the figure of the sprouting of the cholera seed, and a parallel to what occurred in the Peshawar valley in the first week of June 1867, following the invasion of 19th May. The cholera of the invasion of the 19th May 1867 descended in force on the city and cantonment and was reproduced in power in the first week of June; in 1869 cholera descended upon the valley in the first week of September, and, after the same interval as in 1867, there came the sudden and universal onset of the 18th."

Following on this shadowed cholera of the 16th September 1876, eleven days later the cantonment was attacked, thus:—evening of 27th, Sappers and Miners; early in the morning of 29th, artillery, and 8th and 51st British regiments, simultaneously; 4-13th Battery and 30th Native Infantry, 30th September; October 1st, 8th Bengal Cavalry, 7th Native Infantry and 20th Native Infantry.

The meteorological phenomena were identically the same as observed before previous outbreaks. We seem to be reading over what was previously written, in place of recording a new experience:

"There was a peculiar heaviness in the atmosphere at this time, 27th September, distinctly noticed by all during the day; the nights were bright and clear, but during the day there was a powerful sun and the hills were very indistinct with a thick mist hanging over them, which only disappeared as the sun went down. Previously to the first outbreak heavy clouds had hung about the station, and it is a noticeable fact that every fresh outbreak during the time the outbreak lasted was preceded by the appearance of heavy clouds. On the 1st October it began to cloud over about 9 A.M., and at 4-10 P.M. a very severe dust storm from the west, followed by about two hours' heavy rain, broke over the station; the next day was a bright clear day, and reports were more favorable during the next few days. The night of the 6th was a very close night, and early on the morning of the 7th clouds made their appearance. At 3 P.M. the weather was very close with heavy clouds over the cantonments, and simultaneously with the appearance of the clouds the epidemic seemed to increase slightly all over the station and city; in 36 hours (that is, a few hours previous to the appearance of the clouds and up to about 12 hours after their disappearance) there were 7 fresh cases among the Europeans, although previously there had not been a single case for two days among them."

On the same day, the 16th September, the cholera appeared at Dera Ismail Khan.

The sequence of cases from 16th to 26th September is noted in Dr. Bellew's report, page 53; and from beyond the border, the appearance of cholera among the Waziris was reported in the first week of October.

In the Peshawar cantonment we anticipated the death of cholera in the first week of November. The last case occurred on 9th November; and throughout the district in the month 67 deaths only were registered, the last on 23rd November.

Aspect of the outbreak in Peshawar and Kohat in 1869, 1872, and 1876 compared.

The aspect of cholera in the Peshawar cantonment, in 1876, is a natural aspect; and it is the same which I have defined as typical, in studying the natural history of the outbreak in the second section of my original Report.

	Peshawar—All Corps in 1876.			Parallels.	
Date.		Admissions.	Deaths.	Deaths of the Peshawar cantonment in 1872.	Deaths of the Kohat cantonment in 1869.
September	27	2	...	...	...
	28	...	...	...	...
	29	20	5	...	...
	30	8	10	...	...
October	1	8	5	...	...
	2	7	3	...	...
	3	9	2	..	...
	4	5	6	...	1
	5	6	3	...	2
	6	4	1	...	9
	7	5	6	2	9
	8	2	3	4	21
	9	3	...	9	18
	10	5	2	6	10
	11	2	4	11	13
	12	4	3	9	7
	13	2	1	17	10
	14	1	1	9	7
	15	1	...	9	4
	16	...	...	15	2
	17	...	...	8	2
	18	...	1	11	1
	19	...	...	6	2
	20	1	...	5	2
	21	...	...	4	1
	22	...	...	2	4
	23	1	1	2	5
	24	...	1	2	1
	25	1	2	...	...
	26	...	1	1	...
	27	...	...	...	1
	28	2	...	2	...
	29	...	...	2	2
	30	...	...	1	1
	31	1	...	1	...
November	1	...	...	1	1
	2	...	...	...	...
	3	1	1	...	...
	4	...	...	...	...
	5	...	...	...	...
	6	2	...	...	...
	7	1	1	...	...
	8	1	...	...	...
	9	...	...	...	...
	10	...	...	...	...
	19	...	...	1	...
	22	...	...	1	...

It is obvious that the aspect of the outbreak is in all these cases one and the same. They comprehend the cholera of many different corps; but the whole comes together as a unity, and the lapse of years has brought about no difference in the facies, the natural cause and the controlling agency being alike in all. What the aspect implies has been carefully studied in previous reports. Removal from a cantonment after the date of infection seems to alter the facies but little. The indication is, to move before infection occurs, and not to await the coming cholera; but even after infection, it is our hope that the opening up of the mass into many separate bodies may diminish the tendency to culmination in individuals and tide over the fifteen days, during which in such a case as this a localised cholera continues to make its presence felt.

Death of the epidemic of 1875-76 in Upper India.

The whole Punjab registered but 3 cholera deaths in December 1876; and in 1877 not a single death has been recorded attributable to the survival of the cholera of the epidemic of 1875.

Malarious fever running parallel with the cholera of 1876 in Northern India.

Parallel with this cholera of the Punjab, ran, in 1876, a great fever epidemic. But this is to be noted, that the fever of 1876 took the sweep of the province, as cholera did in 1869 and 1872, Delhi and the districts to the west, suffering equally with the northern districts of the Punjab.

At the date when cholera moved into the Peshawar valley, between 15th and 22nd September, in many stations lying towards the frontier, malarious influences became aggravated.

Many stations, however, exhibited this increase of malarious fevers which gave no sign of the presence of cholera. These are the fever admissions of the native troops :—

Fever Admissions of Native Troops for the weeks ending as below in September 1876—

	8th.	15th.	22nd.	29th.
Rajanpore . . .	8	6	13	26
Dera Ghazee Khan . .	25	40	62	72
Mooltan	82	50	248	137
Ferozepore . . .	72	96	130	92
Jhelum	65	75	122	145
Peshawar	138	157	223	268
Kohat	60	58	136	156
Dera Ismail Khan . .	25	33	73	68

In contrast, the stations which follow showed no increase of fever at this date: Sialkot, Amritsar, Meean Meer, Rawalpindi, Talagaon, Attock, Nowshera, Cherat, Murdan, and Abbottabad.

Cholera in its endemic home is purely a malarious miasm. Cholera registration of Jessore in 1871—76.

I cannot too strongly urge the fact that cholera is a miasm of the same nature as malaria; and, therefore, I think it worth while to show here by way of illustration, for the whole population of a district in the endemic province, what I formerly showed by taking a single jail as typical.

Deaths from Cholera in the Jessore District, 1871—76.

	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
1871-72	1	7	...	7	466	1,265	755	251	212	178	92	36
1872-73	18	9	17	7	76	529	354	63	128	607	574	98
1873-74	29	5	17	8	23	327	110	28	140	359	356	123
1874-75	56	11	6	86	762	779	626	286	678	845	347	71
1875-76	27	8	11	232	2,206	2,139	579	229	1,412	3,399	674	188
1876	86	23	21	66	2,937	5,218						

Every one recognises that cholera grows annually in Eastern Bengal, coming forward as soon as the floods subside. These, for example, are the deaths of Jessore arranged month by month for 5 years. The table is typical, and precisely indicates to a week the same phenomenon tabulated for the prisoners of the Backergunge Jail in my original report. Every natural subdivision of the administration of Bengal Proper produces or shows its cholera year by year at the normal seasons, which are in each case special to the tract. This subject the Sanitary Commissioner for Bengal has taken up in his annual report for 1876; and I need only remark, that when tabulated for a series of years the results are even more perfect and consistent, and display the truth that in its endemic home cholera is a miasm purely malarious in type.

In the epidemic area of Hindostan, cholera is not a locally generated miasm.

In my original report I have all through dwelt on the fact, that in reproduction the cholera already distributed over a specific tract comes forward as a provincial, and not as a local cholera. As an apparent exception to this wide general statement, and influenced, perhaps, too much by the opinions current at home, I suggested (page 215) the possibility, on some occasions, of the nidus from which a local cholera might arise in the year succeeding, being formed in a cantonment. The facts of the years 1859, 1860, 1861 and 1862 were those present to my mind in writing this sentence, when, in several instances, for four years in succession some of our cantonments continued to suffer. But looking at more recent experience, it is probable that two epidemics, and not a single epidemic, were compressed into this period, and that the phenomenon in question was subordinate to the general appearance of cholera, and independent of any mere local cause of infection. As a fact, we know that no local reproduction takes place after the very worst outbreaks. Take as typical the case of Peshawar, which retains its cholera in a year of invasion up to the 7th November. The Peshawar valley was filled with cholera in 1858, 1862, 1867, 1869, 1872 and 1876; and yet in a strength of upwards of 6,000 soldiers, not a single case of cholera occurred in the years immediately succeeding—1859, 1863, 1868, 1870, 1873 or 1877. Had the local reproduction been due we know well that nothing would have hindered its appearance on 20th April, or ten days earlier.

Since this report went to press, the report of Drs. Lewis and Cunningham, on the influence of the soil in the production of cholera has been issued, and I consider it necessary to call attention to a question which they ask in concluding their enquiry.

It is this :—Cholera being unquestionably a malarious miasm, will not local production sufficiently account for the local and provincial phenomena, and is not controversy as to the method of spread of cholera over areas misplaced, as based on an alleged phenomenon which has no real existence?

Such a deduction is not legitimately derived from a mere study of the nature of the cholera miasm, such as they now present. In my opinion the question should not have been raised in the paper, since it falls into position naturally after the termination of two studies upon which these observers have not yet entered—the laws of the succession of epidemics, and the laws under which cholera appears over areas.

In every appearance of cholera the question must be asked whether it be the cholera of a new invasion or a provincially reproduced cholera; and no report can proceed satisfactorily

which does not recognise this. All reasoning as to secondary phenomena must follow on the recognition, and this principle will be found lying at the root of the present and all my other reports on cholera.

Months and years before cholera reached the north-western frontier in the course of these epidemics, we watched its deliberate advance from Eastern Bengal, noting in each epidemic the acceleration or retardation of its progress by natural influences; and the aspect under which the appearance occurred on each occasion, forbids me to believe that the material of the outbreak was lying in the Peshawar valley, ready for manifestation with a combination of epidemic conditions hitherto undetermined.

Whether cholera has in India a perennial habitat beyond the endemic area can be answered. It is a mere problem in Natural History, capable of solution by the application to the enquiry of appreciable facts.

CHAPTER VI.

GENERAL CONCLUSIONS SUGGESTED BY THE STUDY OF THE CHOLERA OF 1875 AND 1876.

Question of the importation of cholera in this epidemic and its spread by human agency.

Fifteen districts of the Punjab registered between them 13 deaths in 1875, in a year when cholera was epidemic over half the province, less than one death to each district. It is in an area so divided that the question of the importation of cholera can be fairly worked out. Cholera is imported and then it spreads, is the assertion; and it is easy, with some show of truth, to assert that cholera has sprung from such a focus when it is seen blazing up subsequent to the arrival of passengers from infected tracts. The assertion really amounts to this: the Punjab is divided into 32 districts; cholera was introduced into 17 of these districts in 1875, and therefore it spread; cholera was not introduced in 15 districts, and therefore did not appear, or if it was introduced influences of which we know nothing stopped its propagation in these districts. Unknown causes prevailing in the one-half of the area, are presumed to influence the human system so that it is capable of receiving cholera, and in the other to act universally as an antidote even to a cholera poison when introduced. This is what is offered as antagonistic to the theory which asserts that cholera is air-borne and is as far-flying as are the limits of natural areas. Primarily, these theories cannot be reconciled; the one or the other is false. If cholera is spread only by the human being, the theory which shows cholera to be air-conveyed is untrue; if cholera is spread solely as an aerial miasm, then the theory which recognises only the effects of human intercourse is unfounded.

The most that is admitted by the advocates of the human theory is, that the subjection of cholera to meteorological agencies is absolute, and that these influences can and do operate so as to do away altogether with the effects of the poison, although imported.

They do not recognise the entity *minus* the human being.

The antagonistic theory, while holding as opposed to demonstrable fact the statement that cholera moves only by human agency, may, if necessary, be extended in its scope so as to embrace the other; that is to say, the enquiry is left open as to whether or not the cholera entity, after being aerially distributed, may be subsequently propagated or spread by man.

In the theory which connects cholera solely with man there is no such extensibility. Human intercourse must explain every fact of spread and propagation, and nothing is left to the play of natural agencies.

Human intercourse, giving the widest scope to the signification of the term, cannot pretend to account for any fundamental phenomenon displayed during the progress of epidemic cholera; and, therefore, I assert the theory to be radically untrue as applied to the behaviour of cholera in India.

I do not say that the above statement will hold true all over the world; and, even as applied to India, the theory does not preclude the possibility that cholera may be conveyed by the human being.

Naturally, the recoil is to the opposite extreme. The bold statement that cholera is never spread over an area unless human agency intervene, is apt to be met by the equally dogmatic statement that cholera is as pure a miasm as malaria, and as little amenable to the control of man.

Such a history as that which I have been writing, gives great scope for such dogmatism, and it should be our earnest endeavour to throw into the scale against it whatever may be advanced as proving incontestably that man can and does disseminate and propagate cholera.

The effects of sanitary conditions as influencing the propagation of cholera.

I should leave a very false impression on the reader were it to be inferred that I underrated the influence of sanitation in arresting the progress of cholera in communities, or making its effects less felt.

The same causes which have reduced the general death-rate have equally influenced the cholera-rate. The fact may be appreciated from these statements:—

		Deaths per 1,000.	
		Excluding cholera.	Cholera rate.
European Army of Bengal ...	1860—69	20·74	9·24
	1870—76	15·92	3·21

Jails of Bengal Presidency—18 years, 1859 to 1876.

Per 1,000.	Bengal Proper.	Oudh.	Central Provs.	N.-W. Provs.	Punjab.	Presidency.
Nine years, 1859—67.						
Death-rate excluding cholera	70·90	76·10	52·51	64·93	44·27	62·68
Death-rate from cholera	19·40	7·40	11·27	7·59	2·19	10·77
Nine years, 1868—76.						
Death-rate excluding cholera	43·60	20·86	36·22	34·89	32·12	35·39
Death-rate from cholera	7·85	·82	2·73	1·45	·82	3·28

Central Jails of the North-Western Provinces and Oudh, 1867—76.

	Benares.	Allahabad.	Fatehgarh.	Bareilly.	Agra.	Meerut.	Lucknow.
Aggregate strength of the ten years	14,027	19,590	8,632	13,765	18,567	11,499	17,300
Deaths from all causes . .	422	534	125	581	395	946	358
Cholera deaths . . .	6	16	2	6	8	16	3

Out of 3,361 deaths in these great jails spread over ten years, 57 only were caused by cholera. It is very certain that prison communities, shut up daily at sunset, enjoy a most remarkable immunity from cholera as well as from malarious fevers, probably due to this very cause. But yet, again, how shall we, on these grounds merely, reconcile these results with the experience of the previous decade? Against these 57 deaths, 1,147 deaths from cholera appear in the records of the same seven jails in the ten years preceding.

Cholera Deaths of the Central Jails of the North-Western Provinces and Oudh, 1857—66.

Benares.	Allahabad.	Fatehgarh.	Bareilly.	Agra.	Meerut.	Lucknow.
152	120	25	7	321	337	185

Loss of the same Jails in 1856.

7	19	36	65	232	90	No jail.

North of Benares there was in the mutiny year no prison population which furnished returns; and substituting the mortality of 1856 for that of 1857, we find that this year gave 449 deaths in six jails occupied. Such a statement should make us pause and reflect, that, while it is right and legitimate to contend that the theoretical history of cholera shall be fought out on its scientific merits, the vitally important question for the study of the sanitary officer is, what is meant by the localisation of cholera, not geographically, but in communities; why, for example, these jail communities localised the cholera of the epidemics of 1856, 1859, 1861, 1863, and failed to localise those of 1867, 1869, 1872 and 1875. Taking this case as it stands, it would seem that conditions brought into existence since 1863 have saved nearly 1,550 lives in these seven jails alone, and that a return to the conditions previously existing would be again attended with a corresponding mortality.

One series of propositions seems clear and demonstrable: cholera in India occupies vast areas in successive epidemic leaps, and many communities are simultaneously attacked: cholera in India does not overstep epidemic limits: knowing beforehand that certain tracts fail to localise cholera, we can in such cases place our troops so as to ensure their immunity when epidemic advance does occur: local conditions cannot prolong beyond the period for which it is created the cholera of any general or local manifestation: enquiry into individual outbreaks fails to show that cholera is imported: those brought in contact with patients suffering from cholera are not attacked in appreciably greater numbers than those around them, and in all Indian epidemics the exemption of medical officers from the attack of cholera has been an observed fact.

Taking all this for granted, we have still to account for the striking disparity which would seem to be attributable to local influences for evil.

Defect of sanitary arrangements in the eleven years preceding 1867, may in the case of these jails have implied such insanitary conditions as these: overcrowding and allowing a foul, stagnant and moisture-laden air to accumulate over the sleeping prisoners; a system of conservancy which did not recognise the danger of the growth and spread of cholera when once introduced; a neglected water-supply, selected for its temporary habitat by a cholera air-borne or propagated in the human being within the jail walls; or the absence of quarantine, which allowed infected individuals or gangs to mix unrestrained with the other prisoners.

We do not yet know the whole truth regarding the propagation of cholera in communities; and we have not as yet marked down the special point to be attacked. We know the outworks; that much can be done has been made evident, and much has been done. Removal from a locality likely to be infected has already proved successful, and the advance and behaviour of cholera being now intelligently apprehended, it will do more in the future; and such histories as are attached to the occupation of Cherat and Nowshera, from scientific as well as empirical motives, show that something has been attained, and make brighter a prospect that at first sight seemed very dark.

Results of investigations regarding the importation of cholera in 1875.

The Sanitary Commissioner with the Government of India has investigated the facts in 67 communities affected by cholera in 1875, and he comes to the conclusion, that in no case was there evidence of the importation of the cholera, or of attack due to communication with the sick.

Such investigations as those of the Sanitary Commissioner in the epidemics of 1872 and 1875 tend to show this, if nothing more, that in communities which we can observe and in which there is every opportunity of knowing the actual facts, there is little, if any, tendency of the disease which we call cholera, and which we assert primarily to show the effects on the system of an air-borne miasm, to spread from one man to another by mere contact. On a wider scale and equally appreciable, is the fact here illustrated, that a non-invaded area remains free from cholera, the miasm, which we assert to be air-borne, refusing to be introduced into new tracts by human agency, or to overstep by a mile the limits prescribed to the invading epidemic by natural agencies.

In the cholera history of the province, which we have been studying as typical, we find counterstatements made such as the following:

Inadequate theory is always apt to lead on to erroneous deduction.

The Hurdwar pilgrims carried cholera into Mooltan in 1867; and the circumstance that Mooltan has become a great railway terminus is certain to destroy the known immunity which Mooltan has enjoyed for half a century.

The answer is, that from January 1868 to December 1875, a period of eight years, out of a population exceeding one million in Mooltan, Mozuffergarh, and Dera Ghazi Khan, the districts reached by the railway communications, 17 deaths from cholera were registered, the Punjab having been invaded by epidemic cholera in 1869, 1872 and 1875.

In the epidemic of 1869 cholera became localised in Amritsar, and 3,041 people died in the city; the entire Lahore district in the same period registered under 300 deaths. Panic suggested that here were evident local conditions, such as would cause Amritsar to become a local centre from which cholera would in the future radiate by human agency. In the immediately succeeding epidemic of 1872, Amritsar City registered 7 cholera deaths out of a population of 134,000.

In 1867, the Mecan Meer cantonment suffered heavily; in the great epidemic of 1869 it escaped altogether. The inference was made, that the water-supply had been so secured from contamination that the outbreak of cholera in the future was not to be dreaded.

The very next epidemic of 1872 swept down on the cantonment, and 185 cases occurred in a strength of 1,300, of which 123 were fatal.

In the epidemic of 1869, the Lahore Lunatic Asylum lost 33 out of a strength of 200 inmates. No other community at Lahore suffered in any such ratio.

The conclusion arrived at was, that the sand through which the drinking-water of the lunatics passed had been impregnated with cholera evacuations.

Among the very first to suffer in the epidemic of 1872 were these same lunatics. Out of a strength of 273, 39 were attacked and 25 died. None of the attendants on the sick were attacked.

In the epidemic of 1875 the city of Lahore registered 37 deaths from cholera in all. Out of a strength of 275 lunatics in the asylum, there were 27 cases and 19 deaths. Out of 27 keepers, none were attacked.

It is not likely that the contingency of sand-poisoning should have occurred in three successive epidemics; and the Sanitary Commissioner for the Punjab does not urge this theory in writing of the outbreak of 1875.

It is not expedient to continue these illustrations, or else I might refer to the experience of Simla in 1875, and many other examples, to show how vain is prediction based on inadequate theory, and how sanitary effects, good and laudable in themselves, may avail but little when the one proposition is overlooked, that in dealing with a moving cholera, sanitation must be directed against the inevitable. Sound theory must be superadded to the highest local efforts.

It is however essential that I should not allow to pass without notice the remarks which Dr. DeRenzy has thought it necessary to introduce as a preamble to his "Report on the Punjab Cholera of 1875." These show a steady persistence in denying what I deem it of prime importance to promulgate. Dr. DeRenzy writes:

"In former days it was not at all uncommon to hear of cholera unexpectedly sweeping down on places with the swiftness of a hurricane, and causing all at once wide-spread mortality. There were no such cases in the late epidemic, the reason being, I imagine, because the progress of the disease is now more correctly traced and recorded, and the early beginnings of epidemics, which in former days were entirely overlooked, are now at once brought to notice. Cholera is now seen to resemble other communicable diseases in beginning its career in a place on a very small scale, and then extending the sphere of its operations slowly or rapidly according to the facilities afforded to it for diffusion, and, after attaining its climax of development like other communicable diseases, from some unknown cause it languishes and dies. It will be seen at a glance that there was no wave-like progress of the disease, no simultaneous advance, climax and retreat. Cholera in the Punjab is essentially a disease of the hot weather, and the months of August and September are the periods when it thrives best; but so far as the history of the last four epidemics shows, it never evinces that steady progress in a particular direction that has been ascribed to it."

In these sentences two distinct things are mixed up—the occupation of an area, and the diffusion of cholera within the area occupied. But, taken even as it stands, the impression conveyed to the reader is, that the phenomena attending the occupation of the Punjab and the successive advance over its different areas are those of a communicable disease spread by the human being, and that the cholera of the Punjab has no other aspect. The history of 1875, I have written upon Dr. DeRenzy's own facts, and the history of cholera, in the Punjab for the last twenty years is well known to the Sanitary Commissioner. We come to conclusions diametrically opposite on the same facts. The parallels which teach so much have been thrown aside, as interfering with a theory which cannot afford to take notice of them. In writing of 1875, the Sanitary Commissioner might at least have made an exception of the occupation of the Himalayas, and have shown how, virtually on the same days, the beacon fires were simultaneously lit on the tops of the mountains at Dhurmsala, Simla, and Kussowli, to which in the far-off Deccan and in the Berars, on the southern margin of the epidemic area occupied, the epidemic at the very same moment blazed out in response under one and the same natural influence.

It is quite possible that the aspect of cholera is double; one aspect predominating in India, and the other in countries beyond Hindostan.

As seen by different observers and in other countries, cholera may present an aspect very different from that familiar to us in India, and while this is not recognised, the field remains open for controversy which is not legitimate, and which must necessarily be unending.

When occurring in Russia, Germany, or America, cholera is represented to us as a typhus, propagated by contagion and directly communicated from those already affected; and we are asked to shape our conception of cholera as an epidemic to the facts observed out of India. Cholera, which in India cannot prolong its existence for a week beyond the date at which it is due to die, is represented as regardless of meteorological phenomena, a circumstance possibly consistent with its natural history as a typhus, but which withdraws it from the category of malarious diseases.

If there be these two aspects of cholera, criticism which does not admit the possibility is likely to be unsatisfactory.

I do not reply to such observation that, being inconsistent with observed facts in this country, it is necessarily erroneous. No one has a right to deny, unless for good and sound reasons, the conclusions of a careful and truthful observer; and, therefore, on purely scientific grounds, I do not dissent from the proposition that epidemic cholera may be due to a malarious miasm in India, while beyond India it may from time to time be propagated as a typhus,* or as a disease with some such natural alliance. The failure to recognise this was probably the cause which led Copland to speak in terms of disparagement of Jameson's conclusions, although based upon facts every one of which can be verified at the present day. It is very interesting to find Copland writing of cholera under two distinct heads—Cholera and Cholera Pestilence, which appear in entirely different sections of his dictionary. What he considers cholera proper seems to have come under his own observation in Africa in 1816-17. The clinical characteristics which he gives (page 321, vol. I) are exactly those of true cholera, although he denies the identity; and he considers that it proceeds from exposure "to a cold, raw, and moist atmosphere, or to the night air loaded with terrestrial emanations, after the prevalence of warm weather, or exposure to a hot sun." His inference is, that the different varieties of cholera which he describes (bilious, flatulent, and spasmodic), chiefly differ in degree, the spasmodic variety arising "from the operation of causes of a more intense grade than those which induce the former." If what Copland saw in Africa in 1816-17 was, as is possible, our true cholera of India invading in the method of our modern parallels, we must conclude that he erred in attributing to local causes merely the spasmodic cholera which he saw. But the chief point of interest is, that he holds up to us as a disease of a different aspect the cholera which came under his notice many years afterwards when England was invaded.

From his own observation in England, he describes cholera as if it were a disease related to typhus. "In two cases which I attended," he writes, "most extensive erysipelas complicated the consecutive fever, and I agree with the observation of Drs. Baring and Russell, that persons employed about cases in this typhoid stage are never attacked with ordinary fever, but with a genuine cold, blue cholera (vol. III, p. 104)." Then he goes on (para. 36) to speak of the points of difference between the characteristics of cholera as observed in India and in England, —the period of incubation and the premonitory diarrhœa observed in Europe, the diminished violence of the actual symptoms, the greater intensity of the typhoid state subsequently developed, and the attacks of medical men or hospital attendants, describing even relapse as common among those habitually in contact with the sick. Next he proceeds (para. 37) to ask why this difference should occur if the disease be the same, and he comes to no satisfactory conclusion.

Finally, he remarks (p. 109, para. 62), that before he had seen the disease in this country he had not completely made up his mind on the subject of its infectious nature, but that taking up the Indian reports he had convinced himself that cholera was contagious equally in India and in Europe. What he quotes in support are the same general statements made in the present day, which in certain cases are possibly founded on fact, but which, as the rule, will not stand scientific investigation; and whether true or not, fall, one and all, to be considered in relation and subordination to the great laws regulating the epidemic, and when so regarded take up a very different position from that which the superficial observer or unphilosophic narrator would assign to them.

All the reasoning which follows is founded on what may be an untrue basis—the identity of the Indian with the European pestilence, and the inference that the arguments derived from facts observed in the one are equally applicable to both. And it leads on to the conclusion, that "the inaccuracy of the opinions which have gone abroad respecting the behaviour of the disease in India have vitiated the doctrines and paralysed many of the preventive measures which have been suggested in Europe."

These are the views which we find endorsed by the Surgeon General of the United States Army, and recapitulated by him in an English journal a few months back. They coincide down even to the personal experiences of Dr. Copland and Dr. McClellan. The former tells us (Vol. III, page 121), how he had convinced himself that, without being himself affected, he had personally propagated the cholera through the medium of his clothes, and gives cases in illustration; the latter, how he carried infection by a coat, in which he had been visiting

* In relation to this the chapter of this Report on the connection between epidemic malaria and relapsing typhus may be studied.

cholera patients, which was accidentally left in a bed-room. If the shield have these two aspects,—if on the one side we in India see cholera as an earth-borne and air-driven miasm, and if, on the other, it is as a typhus that it is introduced into England from the Baltic, or into America from Germany,—then we need not dogmatically assert the identity of both sides of the shield.

There has ever been present in my mind the story of the first introduction of cholera into Edinburgh by the pedler, who brought cholera from the neighbouring town already infected, and whose mother, who attended on him, was the first person in the city attacked; and were I to deny the significance of the Halifax case, and other such cases of imported cholera, I should probably err as widely as those who deny the truth of every deduction which I have made on the subject of cholera in India.

An appeal to the possibility of the retardation of sanitary progress by unsound deduction is no essential part of the question at issue, and may be put on one side for the time. A review of the whole matter leads on to this, that if cholera be in every case a typhus by the time it reaches America, then the conclusions of the Surgeon General's report are justified; if it be not a typhus, as with us in India it is not a typhus, then the general conclusion is unwarranted. I should prefer to see the question studied scientifically in both aspects by American observers. The broad truth with us is, that no aggregate of cases or outbreaks is the equivalent of an epidemic of cholera. Holding the aspects of the epidemic to be natural aspects, and unchangeable from generation to generation, it falls as a consequence, that I require foreign observers first of all to determine what are the natural aspects of the epidemic in their special field of research. Even should it be proved that there are no such natural aspects as we describe, and if cholera be a mere contagious disease, I regard it as essential to a finished study that the endeavour should be made to grasp as a whole the aspects of a body of cholera covering a continent. It will never satisfy observers in India to be told that an epidemic is a mere congeries of items, spread more or less widely by facilities of communication, and capable of being restrained by measures taken against outbreaks in communities or attacks in individuals. On every consideration I should prefer that Dr. McClellan's deductions were correct, and were proved to be so. We hold the one end of the chain, and that the links are continuous from India to America is not doubtful; but that cholera as a disease has no characteristics beyond those which have familiarised themselves to us in India, I decline to affirm.

Conclusions from personal experience are founded on an inadequate basis. It is essential that the study should be systematic and followed out as it is in India.

I cannot avoid noticing the circumstance that cholera broke out in Syria on the very same day on which it appeared in Nasik, the 22nd March 1875. I hold myself responsible for the facts only as they appear quoted in the *Lancet*.

The cholera of 1875 beyond Hindostan. The cholera of Syria of 1875 broke out on the same day as in Western India.

That these coincidences of 1869, 1872 and 1875 should have occurred, cannot but be regarded as antagonistic to a theory which recognises only the effects of human agency. We in India knew nothing of the existence of Syrian cholera before the end of August; and then, nothing beyond what was derived from mere newspaper reports. I should be wanting in faith if I failed now to record my belief that the Syrian cholera of 22nd March 1875 was a true homologue of our cholera of the same day; and that the re-vitalisation of the same cholera on 20th July was one and the same phenomenon in Syria, and in Northern and Western and Southern India. In my estimate, it was one and the same cholera renewing its epidemic manifestation, which constrained Dr. Vost of Beirut to write, dating his letter 3rd August, impelled Dr. Townsend to write, on 4th August, reporting the invasion of his province, the Madras Government to telegraph to Simla the advent of the new epidemic, and the Government of India to write to ask what this cholera meant, and what the end was likely to be.

The appearance and course of the cholera of Syria of 1875 is thus narrated by the surgeon of St. John's hospital, Beirut, in the *Lancet* of 28th August, of the same year—

"Near the close of 1874, or the beginning of 1875, a detachment of 400 or 500 Albanian recruits was brought into camp at Hamath. They were in a bad sanitary condition at the time of their arrival; but nothing of note occurred in their hospital until the 22nd of March, when a case of cholera appeared. It was rapidly followed by fifteen others among the soldiers, and, of the sixteen attacked, fifteen died. The disease then spread to the town and still continues, after nearly four and a half months, with little abatement.

* * * * *

"During the month of April, Dr. Pestalozza, the physician of the quarantine department in Beirut, visited Hamath, and pronounced the disease to be genuine Asiatic cholera. At the time of its appearance there was no epidemic prevailing in either Europe, Western Asia, or Africa. No traces of communication with India could be detected. There had been no cholera for a year at Mecca or Jeddah or in Egypt, nor has there since appeared a trace of the disease in those quarters. Persia is quite free from all taint, and there has been no outbreak in the northern provinces of the Turkish Empire. Under these circumstances, and unless further investigation shall show a distinct foreign origin, the disease in Hamath must be regarded as endemic at the outset.

* * * * *

"From the 20th July, cases closely resembling the Asiatic cholera have multiplied. About the 28th, they became more numerous and pronounced, and at the present date (August 3rd) the epidemic may be said to be fairly inaugurated. It is also prevailing in Antioch, Aleppo, Sughbeen (a village of Cœle-Syria), Hasbeiya, Tiberias, Safed, and many other

smaller towns and villages. It is to be feared that before this reaches you it will have escaped the boundaries of this province, and then no one can predict its future course."

The *Lancet* of 14th August also states that, by accounts just received, cholera is fearfully prevalent in Damascus, as many as 400 cases a day being reported. On 8th December the possible origin of this cholera was discussed by the Epidemiological Society of London, but with no result.

CONCLUSION.

This is the story which the cholera of 1875 tells for itself. It is written by the finger of nature, and her finger is not guided nor controlled by the opinion of any individual. Nature writes for every observer, and he who chooses to study what is thus written will not finally err.

The Statistical Officer is responsible to every local observer who contributes to his totals and his generalisations.

I accept the responsibility for errors, and I make no profession that my generalisations are beyond dispute. I thoroughly recognise that they are subject to modification with further experience. Any one who knows my work personally is aware that I am so far above prejudice in this matter, and that I should not hesitate to demolish the structure which I have built, and reconstruct anew upon a healthier theory, the vast accumulation of truths which now stand recorded, and which I have tried to make common property. To any one who for a love of the truth suggests the possible error arising from defective registration, I answer, that our well-observed types and our imperfect general registration are sufficient to show and prove satisfactorily what will be more perfectly exhibited as the defects in registration are amended.

The aggregate of the facts of 1875-76, here given, is the aggregate as far as I know it. To me, claiming to be a competent observer, it appeals as a harmony; and it is, I believe, competent to any one with these facts before him to come to the same conclusion. What he will accept or what he will refuse, each individual must, however, choose for himself, and be guided by his own capacity; and for myself, I assert no infallibility as far as the interpretation of facts goes. I must repeat once more, that to discriminate what are the primary truths regarding epidemic cholera and what are secondary, is essential to the study of the natural history of cholera. A writer professing to ignore this distinction, and to criticise my writings without a distinct recognition of this truth, might as well leave his task alone. All must end in a mere see-saw of asseveration and denial, and will profit nothing towards a consistent narrative or a finished study. What such critics reckon to be the whole truth, I take to be much less than the half, as applied to Indian cholera; for I can, if necessary, consistently incorporate in my system all that is insisted on, and still leave intact the whole series of propositions which go to demonstrate the primary truths: the reverse has no such resource. Once acknowledge as true that cholera has no existence except in relation to man, and the natural history of cholera in India is an untruth; and this no one now-a-days will assert who is acquainted with the facts. Into this study nature will intrude, however roughly she may be pitchforked aside. I have written to little purpose, if it be deemed a sufficient answer to the great generalisations set forth in this paper, that a gang of prisoners of the Central Jail at Poona were poisoned by drinking impure water. However true and important in its practical bearing may be the statement that cholera may be propagated and diffused in water, the alleged fact is secondary, and it does not fall into the natural class of primary truths. It has been necessary for me all through these reports to illustrate the truth that cholera in India is a moisture-loving miasm; and my prejudices are naturally in favour of the doctrine which holds that cholera may be propagated in water and subsequently diffused throughout a community in the same vehicle. But the deduction speciously drawn from the illustration, that wherever exhaustive enquiry has been made in India the results have been the same as obtained in England, is untenable; for, admitting the illustration in question to be proved, the far broader truth comes in to outweigh the significance of the deduction, the truth that no aggregate of outbreaks is the equivalent of an epidemic of cholera in India.

Over and over again we have heard, that, were the history of the epidemic of 1818 to be written in the light thrown upon cholera by research in Europe and America as well as India, the account would be very different from that given by Scot or Jameson.

The facts of 1875 we know to be facts. Not less true were Scot's delineations of 1818. The facts are visibly and conspicuously true to any naturalist, looking at their mere aspect; and I did not hesitate in Scot's defence to repudiate the suggestion that Scot's dates did not represent the whole truth.

The exact facts of 1818 repeated themselves in 1875, and the coincidence was allowed to pass without notice.

A reviewer has remarked, and with reason, that a woven web, such as that which I have constructed in my various reports on cholera, implies the expression of the grandest scientific truths, or else a wonderful skill in pleading for what is false. I accept the alternative. I can make no statement which implies a higher scientific standard than that which I have made many times before, and offered for acceptance. It is this, that every epidemic manifestation, every outbreak, and every case of cholera to be met with in India, shall take its place in a system—a place which can be recognised as proper to it; that what has been appreciably true regarding cholera in the past shall be appreciably true in all time to come; and that parallels, which fall through no mere coincidence, but in subordination to agencies which are natural and therefore appreciable, shall fall in the future as they have fallen in the past. In a

word, the experience of every month and every week and every year, is called on to confirm or refute the theory thus enunciated. And when I state that what is recorded year by year is appreciably true, every scientific observer throughout India has the right to come forward and say that such generalisations are contrary to the facts observed, if such be the case, or that the facts as they stand admit of an interpretation different from that which I have placed upon them.

Every page in this Report tells how essential for the direction of practical sanitary measures is a system of statistics such as that which I have tried to shape out from the medical history of the past twenty years. Statistics are the Sibylline Books of modern times; and when they are the outcome of a true registration, when they are deduced from an adequate aggregate, arranged in a natural order, and grouped in accordance with their real significance they are an unerring guide for the future. The constitution of such a system is permanent. It may be susceptible of improvement in many ways; but as the structure grows year by year the tendency is to solidity and perfection.

POSTSCRIPT.

RENEWED MOVEMENT OF EPIDEMIC CHOLERA IN 1877-78.

The issue of this Report having been unavoidably delayed, I am enabled once again to illustrate the phenomenon of the diffusion of Cholera in the third quarter of the year, its repression and its reappearance in spring over an extensive and defined area.

Since the close of the monsoon season of 1877, we have been anxiously watching the progress of a cholera which began to move in the first week of October. Cholera indicated its presence south of the Jumna as early as April, and culminated in July in Banda, Jalaon, and Hamirpur, the districts to which I have so many times referred as affording the evidence that invading cholera has moved westward out of the Gangetic tract. But I am not prepared to say that this was the same cholera which moved on Central and Western India in October; previous history would suggest, that direct invasion from Lower Bengal may have occurred at the date when general movement was observed.

There is nothing in the cholera registration of Upper India of the first nine months of 1877 to indicate the progress of a serious epidemic. The registration of Oudh and the North-Western Provinces has a very normal facies; and as regards the tract west of 80° East Longitude, we may make the broad assertion that epidemic cholera had no existence before October, and that then it was confined to the Agra and Muttra districts.

Cholera Death Registration of Upper India, 1877.

	Oudh.	North-West Provinces, from Cawnpore eastwards.	North-West Provinces, south of the Jumna.	North-West Provinces, west of Cawnpore.	Punjab.
January . .	None.	11	None.	6	2
February .	13	40	1	9	2
March . .	1,717	2,040	.....	15	2
April . .	5,782	2,870	38	8	3
May . .	4,110	2,720	149	25	7
June . .	773	1,898	770	12	4
July . .	360	2,260	871	31	2
August . .	201	1,855	273	32	2
September .	136	744	45	41	4
October . .	133	514	151	322	1
November .	64	304	8	73	2
December .	52	141	None.	23	None.

The 31 deaths of the Punjab of 1877, may, probably without exception, be put down to error in registration; and it is specially to be noted, that in the fourth quarter, when cholera covered so extensive a tract, three deaths only were registered in the province.

As in October 1874, Lullutpore was the first district that showed to us the new movement of October 1877; and Agra, Muttra, and Gwalior were simultaneously affected. Jhansi did not register a single cholera death from October to December; which shows that importation, which was supposed to have carried the cholera from Lullutpore to Malwa and through Saugor into the Nerbudda valley, had really no influence on the movement.

Nor was this cholera conveyed into the districts north of the Jumna. For from October to December, Etah, Etawah, Allyghur, Mynpoorie, Meerut, Bolundshahr, Saharunpore, Mozuffernuggur and Dehra returned for the entire area only three deaths which were attributed to cholera.

Even at the time of movement it was evident that a geographical line drawn from the Jumna westward to Western Malwa, was not transgressed; and I had no difficulty in identifying this as a natural line parallel to that delineated on our map of 1868, and which has limited many other epidemic movements, such as those of 1863-64 or 1859-60. As I write nearly eight months after the occurrence, cholera has not yet appeared in any district to the north of this line, which may possibly mean that, as in 1863, the cholera in motion was diverted as a body to the south and west. In 1864, a deadly cholera year in the west and south, Upper India entirely escaped; but should Northern India again suffer later on in 1878, we shall at least have evidence of further movement antecedent to or accompanying the manifestation.

The enormous extent of the geographical area first affected in October, may be judged of from these cases which appeared among our troops at a season when cholera has scarcely the power to assert its existence. I refer now to the Bengal Presidency only; but, in geographical continuation, the Panch Mahal, Kaira and Ahmedabad districts of Bombay simultaneously exhibited the invasion of epidemic cholera:

Agra, October 3rd, 5th, 6th, and 25th. Four fatal cases in 4—60th Regiment.
„ 20th. Fatal case in 8th Native Infantry.
Gwalior Fort 26th. A woman of the Battery attacked.
Morar „ 7th 15th and 18th. Three fatal cases in Artillery.
Saugor „ 14th to 28th. Five cases in the Madras Native Infantry.
Seronj „ 23rd. Fatal case in 1st Central India Horse.
Sehore „ 15th. Case in sepoy of Bhopal Battalion.
Sadara, November 1st. Fatal case in 2nd Central India Horse.

Even in November and December the manifestations of his cholera continued to appear.

On 23rd November, a woman of the Battery at Neemuch died, and shortly afterwards a severe outbreak occurred among the labourers employed in constructing the railway near Neemuch.

In Western Malwa, the escort of the Political Agent was attacked while marching, and 5 cases occurred from 8th to 11th December. This case recalls the attack of the Governor General's escort in Rajpootana in December 1860.

On 12th, 14th, and 15th December, three fatal cases in men belonging to Her Majesty's 2-12th, 34th, and 70th Regiments, occurred on the line of railway between Jubbulpore and Bombay, showing that the Nerbudda valley was affected.

It was at this time that cholera broke out in Arabia, and the coincidence is worthy of record. The same occurred early in 1856, in anticipation of the great cholera of India of that year.

In the spring of 1878, this cholera has re-appeared over this natural area, earlier or later according to the local conditions afforded; for example, in March in Malwa, and in May at Gwalior.

On 2nd and 3rd May a mother and child died in the Fort at Agra, and on the same day cholera was reported in the Lushkur at Gwalior. This is the homologue of the appearance of cholera on 4th May in 1875, illustrated in the second chapter of the cholera section of this report.

In 1869, cholera broke out virulently on 22nd April at Morar. In this year, the first case appeared on 7th May, and up to date upwards of 30 European soldiers have died. And one of the most fatal outbreaks recorded of late years which has just ceased, has caused 55 deaths, out of 113 cases of cholera in a treasure escort of Native troops, 379 strong, on the road between Agra and Gwalior, which was attacked on the evening of the 12th May.

In Jhansi, Bundelkhund, and Rewah, which lie to the east of the epidemic tract, no cholera is reported; and, as I have already said, no cholera has yet appeared to the north of the epidemic line.

In the west, the same cholera appeared six weeks earlier. Malwa, Dhar, Mundesore, Rutlam, Oojein, and Indore were affected in March; and at Bhilsa, in the Bhopal territory, a localised outbreak caused 64 deaths in March.

In the last week of March, the camp followers of the 3rd Hussars, stationed at Mhow, were attacked; and out of a strength of 700, 70 were seized and 35 died. At Sehore, the first death was reported on 29th March, and a man of the Bhopal Battalion was attacked on 31st.

From west to east there has been no movement of cholera, as the consecutive appearance of the outbreaks of 1878 might suggest. The present is merely an illustration, in a different aspect, of what I have so often urged, that the appearance of cholera in Nimar or Khandeish, a month before its appearance in Malwa, does not imply the conveyance of the cholera from the one district to the other.

APPENDIX TO SECTION IV.

DEATHS FROM CHOLERA

OF THE

GENERAL POPULATION OF THE THREE PRESIDENCIES

AS REGISTERED FROM

1873 TO 1876.

1.—NORTHERN AND EASTERN BENGAL AND ASSAM.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1873.													1874.											
		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.
Calcutta	447,091	133	189	221	163	153	99	59	31	26	24	24	29	1,155	69	182	195	259	217	86	42	39	24	29	67	131	1,329
Suburbs of Calcutta	238,919	479	452	605	694	339	84	45	16	8	12	9	22	2,795	96	299	510	906	254	169	85	67	51	46	67	128	2,188
24-Pergunnahs	1,561,137														96	143	419	476	650	325	111	74	27	14	69	354	3,267
Jessore	2,075,021	354	63	128	607	574	98	29	6	17	8	23	327	2,233	110	28	140	359	356	123	55	11	6	36	762	770	2,816
Nuddea	1,812,795	72	24	111	129	59	76	43	12	4	6	52	137	725	90	333	828	1,253	897	109	14	7	15	78	713	389	4,876
Moorshedabad	1,353,626	102	135	387	325	225	99	14	12	1	2	9	26	1,337	17	2	112	483	975	633	131	21	20	178	589	283	3,444
Howrah	731,057	102	120	237	149	55	47	28	18	20	20	49	44	889	86	163	122	98	94	87	76	68	78	54	86	131	1,143
Serampore	281,804	22	17	28	125	23	10	4	3	4	2	...	...	238	32	20	32	31	76	23	13	5	10	5	27	22	286
Hooghly	263,635	12	21	55	79	14	13	5	6	2	3	4	2	216	10	95	119	145	85	70	21	4	15	6	5	1	576
Burdwan	2,034,745	375	308	561	368	99	136	137	104	18	1	1	2	2,090	4	95	159	534	1,108	755	198	70	3	...	19	37	2,982
Malduh	676,426	23	84	338	670	181	49	4	5	3	1	1	30	1,389	3	...	6	4	146	109	3	3	...	1	44	68	377
Dinagepore	1,501,924	129	59	59	210	58	...	2	...	...	1	3	6	527	51	...	12	35	103	103	81	1	14	12	16	5	436
Rajsaui	1,310,729	16	13	36	156	70	10	3	...	2	...	56	245	607	98	37	116	605	852	88	11	14	2	316	339	112	2,630
Rungpore	2,140,972	221	69	46	12	13	6	6	18	...	6	...	5	403	...	2	11	108	157	69	116	204	49	73	117	279	1,285
Bogra	689,467	8	1	39	199	44	...	...	2	...	1	...	1	295	...	1	38	49	59	29	...	...	24	173	560	216	1,141
Mymensingh	2,340,917	168	39	24	83	106	147	161	87	139	115	168	288	1,508	224	188	174	173	249	285	13	17	13	51	651	826	2,855
Pubna	1,211,594	59	8	42	117	59	16	7	1	3	2	30	161	484	101	29	44	102	77	15	...	2	...	232	731	109	1,902
Furreedpore	1,515,821	12	21	27	76	12	1	1	10	...	...	61	82	303	137	73	188	422	367	37	9	29	1	112	334	352	2,061
Backergunge	1,874,201	177	66	204	678	208	277	63	19	13	10	44	267	2,726	91	63	100	422	273	106	47	29	15	21	33	158	1,412
Noakholly	713,934	205	57	58	100	75	38	2	6	6	2	98	199	846	56	26	10	16	77	4	5	*	1	5	61	79	340
Chittagong	1,127,402	120	53	55	126	62	21	29	74	191	14	20	178	943	196	130	189	212	662	90	29	5	53	1	4	15	1,577
Tipperah	1,533,931	349	174	153	267	346	123	29	29	9	11	257	547	2,276	198	40	22	44	69	6	...	2	3	2	9	177	144	704
Dacca	1,852,993	154	39	29	83	80	38	11	18	17	41	615	753	1,869	327	75	122	235	111	27	7	4	3	79	537	819	2,340
Pureah	1,714,795	...	1	37	751	70	6	1	...	...	...	...	...	866	...	1	...	4	11	30	1	...	7	2	71	21	148
Jalpaiguri	418,685	...	1	2	6	3	...	1	...	...	2	1	2	18	...	...	...	...	9	19	8	21	...	...	2	1	60
Darjeeling	94,712	...	...	...	7	4	4	2	3	...	...	...	1	21	2	1	1	1	...	...	4	...	3	7	3	8	30
Sylhet	1,719,539	67	49	19	170	280	179	37	6	5	27	14	71	933	71	56	70	39	100	113	69	38	198	525	861	623	2,763
Cachar	205,027	2	2	2	24	79	57	7	1	...	1	...	19	194	21	15	4	8	12	20	5	...	9	14	57	61	219
Goalpurah	444,761	59	...	11	25	203	191	59	17	12	...	...	...	668	...	1	6	6	21	40	29	...	...	...	26	143	272
Kamrup	561,681	9	21	12	41	169	618	792	229	169	69	48	33	2,201	32	32	44	128	888	1,618	1,232	711	295	126	359	460	5,925
Sibsagar	296,559	347	73	44	5	7	5	3	5	4	34	...	...	527	15	40	43	90	19	40	23	7	3	14	30	63	337
Nowgong	256,399	6	5	...	...	16	54	79	8	...	...	...	...	168	...	...	88	102	446	656	542	217	283	113	485	214	3,101
Darrang	236,009	13	7	8	12	33	85	140	169	86	39	2	6	600	29	70	33	46	520	1,606	562	191	62	159	133	186	2,997
Lakhimpur	121,267	12	...	...	37	128	110	90	...	...	...	...	...	377	11	23	11	43	248	120	43	125	114	22	93	2	855
Jaintia Hills	6,308	...	...	...	16	8	4	1	...	1	...	3	...	33	...	...	...	...	8	...	7	2	4	3	...	...	24

1.—NORTHERN AND EASTERN BENGAL AND ASSAM.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1875.													1876.											
		January.	Febuary.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	Febuary.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Calcutta	447,601	130	73	208	208	110	66	32	35	55	150	358	172	1,720	91	226	343	208	168	126	42	32	31	41	259	244	1,871
Suburbs of Calcutta	258,910	175	170	469	270	87	65	52	36	56	177	310	241	2,099	171	282	569	351	172	221	50	24	21	46	561	628	3,096
24-Pergunnahs	1,931,137	958	1,105	1,482	823	561	60	38	14	15	121	586	1,342	7,109	698	616	678	757	378	84	25	10	11	17	517	1,455	5,146
Jessore	2,075,021	626	286	678	845	347	71	27	8	11	232	2,208	2,130	7,478	579	229	1,412	3,399	674	188	86	23	21	66	2,027	5,218	14,822
Nuddea	1,812,795	301	480	2,369	824	364	24	10	10	150	611	3,017	1,788	9,948	475	151	492	1,948	237	43	23	6	11	77	1,374	1,520	6,356
Moorshedabad	1,353,626	32	12	54	78	61	46	89	14	5	32	101	203	727	54	38	964	1,326	106	47	12	2	18	158	776	502	4,003
Howrah	731,057	220	277	345	156	93	24	38	30	56	102	297	255	1,893	160	175	294	181	159	122	46	22	23	30	153	336	1,701
Serampore	393,864	20	6	36	29	10	9	1	4	4	33	19	51	222	10	21	134	169	51	41	17	2	1	8	36	20	491
Hooghly	303,635	7	26	94	86	22	3	3	2	1	9	33	84	370	68	132	197	321	60	19	25	1	2	1	22	70	921
Burdwan	2,034,745	76	187	679	536	112	21	68	45	3	9	109	282	2,127	162	152	608	1,966	1,053	381	81	19	8	41	69	271	4,908
Maldah	676,426	96	23	1	164	123	67	156	130	49	116	685	152	1,712	9	6	39	192	273	72	6	2	...	1	39	235	874
Dinagepore	1,501,924	14	2	10	347	353	98	87	43	6	20	111	177	1,268	69	16	36	247	310	50	49	2	2	...	42	298	1,121
Rajshai	1,310,729	29	31	184	394	113	7	5	46	48	26	203	161	1,247	39	11	295	1,010	247	26	4	1	23	211	460	303	2,720
Rungpore	2,149,672	190	92	294	833	1,085	382	285	70	65	540	1,105	602	5,094	159	8	49	202	243	285	583	419	70	2	29	44	2,003
Bogra	689,407	28	25	155	845	218	19	31	4	12	59	399	111	1,888	55	7	56	59	3	...	...	...	...	...	57	153	391
Mymensingh	2,349,917	471	155	114	412	372	213	71	70	32	129	923	1,210	4,372	710	331	273	933	1,286	358	127	49	51	47	270	1,025	5,820
Pabna	1,211,394	14	5	82	186	99	55	8	2	1	65	931	705	2,153	276	139	245	899	284	29	38	16	3	88	1,127	862	3,907
Furreedpore	1,515,821	104	34	69	189	102	65	18	12	10	121	1,179	1,400	3,203	608	308	1,854	3,705	194	15	41	9	44	1,411	3,248	2,698	14,135
Backergunge	1,874,201	110	132	170	104	33	85	35	21	13	94	540	1,605	3,002	631	274	1,120	1,935	1,220	199	77	69	37	309	1,131	9,295	16,709
Noakholly	713,934	74	21	133	164	122	39	18	15	3	51	508	1,056	2,204	332	202	422	684	402	115	70	7	4	38	4,774	11,458	18,505
Chittagong	1,127,402	32	19	81	75	102	37	29	63	21	58	140	218	875	183	161	309	505	404	165	104	29	16	13	2,161	5,261	9,300
Tipperah	1,533,931	70	102	292	185	170	31	52	2	2	33	539	744	2,222	298	211	388	755	393	65	4	4	1	38	433	898	3,488
Dacca	1,852,903	339	202	248	664	474	134	35	25	57	403	2,068	1,908	6,617	699	297	753	2,750	765	266	122	128	36	102	2,544	2,705	11,257
Purneah	1,714,795	...	2	213	578	507	80	53	15	75	407	477	73	2,480	31	9	233	947	892	126	46	54	61	41	74	83	2,597
Jalpaiguri	418,695	...	3	...	35	242	344	129	59	130	204	145	62	1,353	2	25	2	53	285	313	291	121	2	1	...	...	1,095
Darjeeling	94,712	5	4	...	5	1	40	62	7	13	7	5	1	150	32	51	190	122	172	910	226	17	...	...	1	4	1,724
Sylhet	1,719,539	362	54	69	45	177	6	...	2	...	...	84	250	989	362	219	315	304	174	45	23	25	27	1	6	182	1,773
Cachar	205,027	15	8	16	13	56	46	3	1	...	...	1	1	160	7	21	28	32	7	13	2	4	1	8	4	8	135
Goalpara	444,761	60	...	4	23	542	102	163	107	214	522	463	88	2,288	1	2	...	38	90	201	58	...	...	66	57	34	556
Kamrup	561,681	386	113	36	16	44	171	289	177	69	51	62	25	1,439	61	20	11	13	10	74	212	291	186	79	38	9	984
Sibsagar	236,589	69	64	231	101	15	65	38	3	...	1	2	188	777	396	535	887	1,001	667	204	155	51	18	5	4	6	3,960
Nowgong	256,309	52	22	...	30	17	16	13	57	85	9	...	...	301	...	1	...	1	49	342	206	112	1	8	...	...	720
Darrang	236,009	24	27	15	48	87	132	226	78	17	2	2	2	660	3	...	4	70	135	108	26	4	3	3	2	4	362
Lakhimpur	121,207	...	...	...	15	7	...	...	...	...	...	...	...	22	...	...	...	39	52	30	65	...	...	...	...	...	186
Jaintia Hills	6,398	...	...	...	...	...	...	...	...	...	...	...	.....	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....

2.—SOUTH-WESTERN BENGAL, BEHAR PROVINCES, AND OUDH.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1873.													1874.											
		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.
Cuttack	1,494,784	164	343	640	242	55	252	423	166	55	66	27	9	2,382	4	2	5	63	391	164	214	174	46	25	22	17	1,127
Pooree	769,674	40	84	70	14	...	169	365	77	2	...	...	...	821	3	4	...	2	10	44	319	251	48	11	...	2	694
Balasore	770,232	67	255	456	185	95	228	617	92	5	3	1	1	1,965	2	36	53	50	100	162	108	61	23	8	8	15	636
Midnapore	2,540,983	110	91	128	152	140	205	178	21	5	12	3	13	1,058	66	213	220	320	262	523	63	46	19	9	56	95	1,962
Bankoora	526,772	27	184	276	177	141	37	84	60	9	...	...	...	995	7	4	38	50	248	294	194	52	23	...	2	...	912
Manbhoom	995,570	...	10	18	54	95	154	350	118	18	13	6	4	840	3	11	29	33	494	676	273	85	17	6	...	...	1,537
Beerbhoom	695,921	185	77	167	100	24	107	40	67	18	1	...	...	786	11	131	427	764	1,235	1,123	108	45	11	21	63	67	3,906
Rajmehal	1,259,287	9	6	36	55	140	98	23	38	27	20	...	15	467	1	2	10	27	171	180	196	65	129	95	41	4	921
Deoghur																											
Hazaribagh	771,875	...	12	7	2	14	33	159	58	29	3	11	...	328	...	...	...	6	4	46	50	69	13	15	8	...	211
Ranchee	1,237,123	...	1	5	3	16	25	139	159	37	...	...	1	386	...	2	1	2	20	12	10	37	5	3	13	1	106
Chybassa	410,821	6	10	1	3	4	5	77	83	7	5	6	1	208	1	4	24	3	12	53	27	7	6	3	4	1	145
Monghyr	1,812,986	1	3	15	278	330	321	163	133	61	19	9	1	1,334	4	...	...	7	60	223	86	134	40	41	106	...	710
Bhagalpur	1,826,290	10	1	138	340	166	169	41	18	18	11	1	...	913	2	...	1	...	27	47	273	469	147	146	71	...	1,123
Gya	1,940,750	...	...	5	138	224	288	769	1,648	994	291	8	...	4,365	1	3	1	3	...	5	87	82	82	11	9	1	285
Patna	1,550,638	6	4	76	180	305	349	493	826	170	28	6	12	2,515	4	6	10	12	40	39	113	73	82	42	27	8	455
Shahabad	1,723,974	2	13	9	129	173	461	1,510	1,345	689	329	27	5	4,692	15	1	6	...	1	...	2	10	...	20	7	...	62
Sarun	2,063,860	12	4	6	12	34	156	306	734	349	42	9	3	1,757	1	1	2	4	7	19	52	184	128	58	20	12	486
Tirhoot	2,188,382	1	...	1	299	1,640	922	1,238	1,235	523	181	...	...	6,040	11	...	4	26	82	235	62	147	53	3	14	...	637
Chumparun	1,140,815	...	1	...	...	2	14	48	776	313	42	22	...	1,218	...	...	...	...	25	76	19	175	112	16	6	...	429
Bahraich	773,775	...	...	...	7	...	...	38	18	4	12	...	...	79	...	...	...	...	...	...	5	...	...	...	...	...	5
Gonda	1,160,515	...	...	...	...	3	128	31	61	78	...	...	...	304	...	...	...	...	...	...	...	...	...	...	...	...	.....
Fyzabad	1,022,770	...	...	2	13	17	7	12	8	20	5	2	20	106	...	...	3	1	2	1	...	2	...	...	6	10	25
Nawabganj	1,115,042	...	...	...	...	...	20	...	...	...	1	18	47	86	...	...	...	1	...	...	3	4	...	...	...	...	8
Hardoi	930,977	...	...	...	1	1	...	...	...	...	...	1	8	11	...	...	...	2	...	...	...	...	...	...	...	...	2
Sitapur	930,224	...	...	...	1	...	...	...	...	1	1	6	6	15	1	6	...	...	...	...	3	...	...	...	...	...	10
Kheri	739,283	...	...	37	272	44	15	22	85	78	...	...	...	553	...	...	...	...	4	...	...	...	...	...	...	...	4
Lucknow	778,195	1	...	...	...	1	...	11	6	11	31	11	73	145	...	1	...	...	1	...	...	1	...	1	1	1	6
Unao	944,793	...	...	...	...	2	30	32	47	47	34	1	19	212	...	2	...	...	...	...	...	...	...	...	...	...	2
Rae Bareli	988,719	11	...	...	1	6	467	391	675	205	116	25	82	1,919	...	...	1	...	...	...	...	3	...	...	...	...	4
Sultanpur	1,000,336	...	1	...	...	2	9	11	5	4	23	...	16	71	...	...	2	...	...	...	...	...	...	...	...	...	2
Partabgarh	784,156	...	1	20	5	13	35	113	15	3	...	19	7	231	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR OUDH	11,174,785	12	2	59	300	89	651	664	920	451	223	83	278	3,732	1	9	6	4	7	1	11	10	...	1	7	11	68

2.—SOUTH-WESTERN BENGAL, BEHAR PROVINCES, AND OUDH.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																							
		1875.													1876.										
		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.
Cuttack	1,494,784	24	16	453	233	231	608	567	215	320	491	582	687	4,102	205	215	306	262	518	1,900	1,008	229	177	187	320	87	5,044
Pooree	769,674	...	16	41	41	4	46	449	302	110	61	200	580	1,906	243	157	418	313	51	666	1,251	360	196	80	462	281	4,428
Balasore	770,232	26	192	585	397	313	244	226	85	82	136	287	203	2,776	121	78	222	384	2,501	2,336	1,230	121	22	7	219	111	7,353
Midnapore	2,540,913	917	1,902	1,880	267	59	113	87	44	24	54	108	172	5,627	117	323	176	283	128	153	164	23	18	1	132	155	1,673
Bankoora	526,772	...	25	47	18	26	8	76	79	8	1	24	107	419	3	18	332	201	220	107	8	...	...	5	9	961
Manbhoom	993,570	2	...	46	70	35	21	41	7	2	19	10	1	254	8	3	83	215	556	687	222	87	17	18	1	1	1,898
Beerbhoom	695,021	3	8	20	28	35	6	15	13	2	...	3	49	182	10	18	544	311	113	20	13	21	10	2	81	181	1,322
Rajmehal	1,259,297	4	...	23	21	63	206	191	178	153	160	47	19	1,065	3	40	337	254	209	213	108	85	66	78	345	47	1,815
Dwaghur																											
Hazaribagh	771,875	...	...	22	6	2	20	4	123	54	28	...	...	270	...	...	59	96	108	316	467	357	31	1	...	3	1,438
Ranchee	1,237,123	1	1	3	15	173	210	403	595	42	8	...	15	1,472	1	...	30	52	120	384	1,134	1,458	655	51	...	...	3,885
Chybassa	410,821	5	2	3	3	3	9	30	33	17	15	26	26	172	9	30	4	18	13	1	15	16	14	13	7	3	143
Monghyr	1,812,986	...	1	28	79	424	788	445	257	184	203	152	32	2,593	2	6	66	246	702	567	153	106	25	108	53	232	2,356
Bhagalpur	1,826,190	1	1	1	66	60	98	166	377	414	449	82	3	1,718	...	13	175	396	901	223	80	106	81	57	52	12	2,096
Gya	1,949,750	1	...	6	298	779	960	853	527	49	15	4	4	3,505	6	2	86	39	690	926	2,465	749	114	19	11	4	5,514
Patna	1,559,638	7	6	62	338	418	526	301	168	46	119	65	6	2,062	1	2	170	1,074	871	771	1,006	666	96	28	44	51	4,720
Shahabad	1,723,974	...	4	28	167	241	411	237	173	64	17	4	...	1,346	...	...	12	235	2,342	1,768	1,524	581	98	59	...	...	6,619
Sarun	2,063,800	1	4	...	21	105	150	165	213	117	26	10	11	832	2	5	10	101	349	724	528	511	250	55	20	2	2,557
Tirhoot	2,188,382	...	...	...	284	1,106	1,272	280	56	38	22	9	...	3,067	...	1	13	152	1,097	816	113	37	10	...	17	...	2,256
Champarun	1,440,815	...	...	...	1	38	126	183	96	56	21	...	...	521	...	...	8	9	278	899	449	217	169	42	1	...	2,072
Durbhunga	2,196,134	...	...	...	1,155	604	124	30	7	3	10	...	17	1,950	...	...	8	116	650	433	32	13	5	5	8	3	1,273
Bahraich	773,775	...	...	49	2,405	691	99	56	38	38	...	...	...	3,376	...	...	...	...	171	859	362	194	267	118	10	...	1,981
Gonda	1,166,515	...	2	79	1,447	918	484	241	303	105	96	61	70	3,806	3	6	9	202	630	2,200	1,347	417	429	166	9	...	5,409
Fyzabad	1,022,770	...	5	83	901	274	187	31	38	5	23	103	234	2,034	14	3	10	214	584	453	164	36	4	5	...	...	1,487
Nawabgunj	1,115,042	...	...	5	507	325	50	63	46	35	75	24	17	1,147	...	1	4	13	179	240	101	129	8	...	9	...	654
Hurdoi	930,077	...	...	...	119	156	283	169	197	844	1,026	180	8	2,973	...	...	...	...	...	8	3	13	1	7	...	...	32
Sitapur	930,224	...	...	48	226	328	67	7	...	179	389	101	59	1,404	...	...	...	...	...	...	...	...	13	11	4	...	28
Khiri	739,283	...	...	7	151	97	35	17	13	57	56	25	...	458	...	...	...	...	...	...	118	303	90	34	8	...	553
Lucknow	778,195	...	1	36	429	216	81	65	128	230	49	8	8	1,251	...	...	1	2	110	412	147	248	153	21	21	2	1,117
Unao	944,703	...	...	6	701	501	115	119	61	60	36	6	...	1,605	...	...	1	41	261	715	275	67	61	4	...	...	1,425
Rae Bareli	988,719	...	2	4	37	152	319	210	146	61	70	197	375	1,573	14	...	...	146	2,099	3,078	605	106	7	23	43	4	6,035
Sultanpur	1,009,336	...	3	367	1,362	396	312	71	9	8	3	34	210	2,805	13	3	...	42	269	744	549	53	15	3	13	8	1,712
Partabgarh	784,156	...	43	140	351	152	75	10	...	14	33	3	8	829	...	...	...	17	76	228	308	40	31	86	169	16	971
TOTAL FOR OUDH	11,174,785	...	56	824	8,726	4,206	2,137	1,050	979	1,636	1,856	862	989	23,321	44	13	25	677	4,892	8,007	79	1,006	1,670	478	286	30	22,007

3.—NORTH-WESTERN PROVINCES.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS FROM CHOLERA REGISTERED IN EACH MONTH.																								
		1873.												1874.												
		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.
Ghazipur	1,345,491	...	4	25	81	148	257	325	196	204	63	3	1	1,307	2	...	...	3	6	7	5	37	38	18	10	...	126
Benares	793,039	8	26	21	96	222	303	271	380	223	94	19	6	1,738	3	3	2	6	65	46	9	22	40	38	10	7	251
Mirzapur	1,015,293	...	11	52	136	121	233	201	138	336	68	3	1	1,300	...	...	2	2	14	56	13	9	13	...	...	...	109
Azamgarh	1,531,410	...	9	4	11	18	85	121	444	289	36	5	9	1,031	...	1	3	2	24	65	13	59	130	37	11	1	336
Jaunpur	1,023,869	...	7	25	68	64	174	126	59	71	15	...	1	610	...	1	...	2	3	5	...	2	...	1	...	...	15
Gorakhpur	2,019,350	...	...	2	3	2	5	10	81	165	106	49	6	429	1	1	...	1	...	...	12	125	1,196	2,206	352	4	3,988
Basti	1,472,994	3	...	1	8	11	38	30	12	3	...	...	...	106	...	...	...	...	2	...	5	36	82	467	337	35	964
Allahabad	1,394,245	1	5	27	43	92	389	122	58	102	37	...	...	876	...	...	1	5	...	3	...	1	1	2	1	1	15
Cawnpore	1,155,439	...	4	...	3	7	2	2	34	65	21	9	2	149	5	...	1	...	2	6	3	6	...	...	...	...	23
Fatehgarh	918,748	1	1	4	1	5	8	7	10	11	8	1	6	63	4	...	1	15	13	2	6	5	2	3	1	2	54
Fatehpur	663,815	...	...	...	1	18	122	112	281	114	18	...	...	666	1	...	1	...	1	...	...	1	...	...	...	...	4
Banda	697,611	...	...	...	5	69	250	108	199	139	19	1	...	790	...	...	3	...	...	1	3	...	...	...	...	...	7
Hamirpur	529,137	...	...	...	...	2	3	...	12	23	13	1	...	54	...	...	...	...	...	1	...	...	...	...	...	...	1
Jalaun	404,384	...	...	...	2	...	...	...	...	35	11	...	...	48	1	...	...	...	...	2	...	1	1	...	...	...	2
Etawah	668,581	...	1	...	1	3	24	1	7	8	1	...	...	46	3	...	3	4	1	2	1	3	1	1	...	...	19
Jhansie	317,735	...	...	...	...	...	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	.....	.....
Lalitpur	212,628	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	.....	.....
Bareilly	1,506,801	3	6	11	21	13	20	12	6	9	10	11	1	123	...	2	1	11	6	5	10	5	4	7	2	...	53
Budaun	934,348	...	9	4	9	3	6	4	62	233	122	2	2	456	1	1	3	2	8	5	5	9	5	...	4	3	36
Shahjahanpur	940,471	1	...	4	...	7	...	...	1	2	51	14	...	80	...	2	3	2	5	2	4	...	1	...	...	...	19
Moradabad	1,122,131	3	4	21	11	19	18	7	169	339	106	5	1	703	4	2	3	3	3	5	3	17	5	13	1	2	64
Etah	703,485	4	4	3	7	10	22	8	40	53	80	14	...	245	2	...	1	...	1	...	1	1	...	...	...	...	6
Mainpuri	765,783	...	...	...	2	3	74	104	158	180	5	1	...	524	...	...	...	1	...	3	2	...	...	...	...	...	6
Aligarh	1,073,108	13	1	11	8	17	59	25	57	113	33	9	4	350	1	...	2	4	4	7	8	19	8	3	...	6	62
Bulandshahr	936,593	1	...	3	6	2	4	3	11	9	2	...	2	43	2	2	2	3	6	4	3	...	3	1	...	1	27
Agra	1,094,184	...	1	2	6	12	86	71	81	100	18	3	1	441	1	...	1	11	2	4	2	4	11	15	...	...	51
Muttra	887,355	4	3	4	9	12	89	65	48	68	10	6	3	321	2	1	2	12	4	3	2	7	3	4	3	4	47
Meerut	1,273,914	1	...	1	3	6	19	...	2	20	...	1	...	53	...	...	...	...	1	1	...	...	...	...	...	...	2
Muzaffarnagar	690,082	...	...	2	...	1	...	...	...	2	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	2
Saharanpur	883,782	1	2	2	8	5	6	1	4	9	1	3	3	45	1	1	2	...	2	...	3	4	3	1	...	...	17
Bijnor	737,152	5	6	9	8	6	5	3	2	5	5	4	5	63	1	2	4	8	13	6	6	7	1	2	3	2	55
Dehra	115,711	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	1	...	...	1
Tarai Pergunnahs	185,047	...	22	55	165	42	17	4	35	109	6	...	...	455	...	...	...	...	...	...	...	...	...	...	...	...	.....
Kumaon	432,888	61	215	209	575	576	340	...	3	5	1	...	...	2,045	...	...	...	...	1	...	...	...	...	...	...	...	1
Garhwal	310,282	3	2	3	8	9	2	...	...	...	...	...	...	27	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR NORTH-WESTERN PROVINCES	30,769,056	113	343	565	1,305	1,525	2,720	1,740	2,691	3,104	960	164	54	15,194	35	19	41	97	190	237	123	379	1,559	2,910	736	70	6,396

3.—NORTH-WESTERN PROVINCES.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS FROM CHOLERA REGISTERED IN EACH MONTH.																								
		1875.													1876.											
		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.
Ghazipur	1,345,401	...	...	...	126	158	154	85	67	58	13	14	...	675	...	...	39	418	902	865	359	78	88	12	2	...	2,773
Benares	793,699	10	17	122	607	151	55	24	49	18	29	9	3	1,094	3	143	244	338	211	400	236	135	89	31	7	5	1,872
Mirzapur	1,015,203	1	8	145	656	808	361	175	70	10	7	3	3	2,247	2	23	123	242	433	1,208	1,120	191	132	55	23	...	3,552
Azamgarh	1,531,410	...	11	33	607	389	248	135	137	50	27	10	...	1,647	...	...	18	173	385	913	515	74	44	14	...	...	2,116
Jaunpur	1,025,869	...	40	277	704	115	56	52	96	70	30	1	...	1,441	...	...	7	30	181	183	217	160	14	9	12	1	...	813
Gorakhpur	2,019,350	...	...	37	633	729	657	313	151	102	21	1	18	2,662	...	...	...	1	1	88	374	205	139	83	12	...	...	893
Basti	1,472,994	...	...	274	1,824	999	425	130	15	6	4	86	274	4,028	2	...	...	...	53	277	1,081	765	102	33	5	4	16	2,338
Allahabad	1,394,245	2	59	151	408	414	208	25	13	9	3	1	...	1,293	3	3	54	215	720	693	221	54	35	13	3	...	1,985
Cawnpore	1,155,439	5	3	10	175	191	209	179	141	137	103	8	...	1,161	...	1	1	3	40	233	101	186	264	54	40	...	923
Fatehgarh	918,748	6	5	10	15	167	278	343	349	666	470	22	1	2,323	...	1	...	...	5	2	6	128	121	2	...	1	266
Fatehpur	653,815	...	1	4	44	163	94	13	46	33	8	...	...	406	...	...	1	6	193	493	194	13	14	3	...	...	917
Banda	697,611	...	3	...	122	495	500	45	1	...	...	...	...	1,366	...	...	...	2	35	336	254	22	45	...	...	...	694
Hamirpur	529,137	...	1	...	11	232	549	131	59	127	73	...	...	1,183	...	...	...	1	18	96	218	488	112	1	...	...	934
Jalaun	404,384	...	...	...	...	4	45	60	43	312	35	...	...	499	...	...	...	...	...	2	1	25	96	13	...	...	137
Etawah	668,581	...	...	1	14	4	122	175	158	312	34	...	...	820	...	...	1	1	...	3	3	1	...	2	...	...	11
Jhansie	317,735	...	...	...	...	...	...	1	...	2	8	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	.....
Lalitpur	212,628	...	...	...	...	...	...	1	1	...	...	...	...	2	...	...	...	2	1	...	...	...	...	...	...	...	3
Bareilly	1,506,801	...	...	...	5	3	6	3	13	411	241	44	4	730	...	...	...	4	159	152	123	614	1,326	612	120	1	3,111
Budaun	934,348	...	2	9	8	4	11	67	76	503	808	210	43	1,741	4	...	2	4	1	3	5	2	24	44	4	1	94
Shahjahanpur	949,471	...	...	...	6	23	2	19	17	127	595	246	27	1,063	...	...	...	...	...	...	...	30	232	182	31	3	478
Moradabad	1,122,131	2	4	3	5	5	6	6	173	445	123	21	1	794	...	2	...	8	7	18	7	52	352	132	2	2	582
Etah	703,485	1	...	1	2	53	170	354	410	624	212	30	4	1,861	...	...	1	1	1	11	4	4	3	...	1	...	24
Mainpuri	705,783	...	...	...	1	30	427	619	229	395	68	2	...	1,771	...	...	...	...	2	4	2	...	2	...	...	...	10
Aligarh	1,073,108	...	1	1	8	33	216	457	1,037	570	41	6	2	2,372	...	...	...	1	6	5	5	8	20	2	7	...	54
Bulandshahr	936,593	2	1	...	7	15	30	66	891	1,283	83	3	...	2,381	1	...	1	...	1	...	...	...	1	...	...	...	6
Agra	1,094,184	1	...	11	16	4	76	44	230	437	46	3	1	869	...	1	7	1	2	4	2	1	...	4	...	...	22
Muttra	887,355	2	2	3	9	80	183	158	93	139	14	43	7	733	...	3	...	4	...	2	2	5	6	6	...	...	28
Meerut	1,273,914	1	...	...	...	...	12	141	443	949	20	7	1	1,574	1	...	1	...	...	1	...	...	...	...	...	...	3
Muzaffarnagar	690,682	...	...	...	1	9	4	26	186	304	31	...	...	561	3	...	...	...	...	2	...	1	...	...	...	2	8
Saharanpur	883,782	1	...	2	3	21	54	35	129	212	46	...	1	504	...	...	3	...	4	6	...	...	3	1	...	...	17
Bijnor	737,152	1	2	4	11	12	2	9	3	77	192	85	8	406	1	1	4	4	2	...	...	2	63	26	...	...	103
Dehra	115,711	...	...	...	...	288	67	3	...	...	...	...	...	358	...	...	...	...	...	...	...	...	...	...	...	...	.....
Tarai Pergunnahs	185,647	...	...	...	...	...	...	...	8	8	15	...	...	31	...	...	...	...	3	28	...	204	355	79	...	...	669
Kumaon	432,888	...	...	1	...	4	...	...	...	1	6	...	...	12	...	...	...	8	176	409	155	38	9	13	...	...	808
Garhwal	316,282	...	...	...	3	6	103	361	92	18	...	...	4	587	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR NORTH-WESTERN PROVINCES	30,769,056	35	160	1,009	6,031	5,630	5,420	4,255	6,417	8,415	3,907	855	402	41,106	21	185	531	1,671	3,865	7,593	4,672	2,611	3,559	1,320	245	31	26,304

4.—PUNJAB.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1873.													1874.											
		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.
Gurgaon	696,646	...	...	...	...	...	3	21	2	35	16	...	...	80	...	...	1	1	...	...	...	...	...	...	...	...	4
Delhi	608,850	...	...	...	...	1	...	...	...	13	...	...	...	14	...	...	...	...	...	...	...	...	13	...	...	...	15
Rohtak	536,959	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Hissar	484,081	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	1	...	...	1
Sirsa	210,795	...	...	...	...	...	3	...	...	...	...	...	...	3	...	...	...	...	...	...	...	1	...	...	...	...	1
Karnal	610,927	...	...	...	1	3	...	...	...	...	...	...	...	6	...	...	...	...	...	...	1	1	...	...	...	...	1
Umballa	1,008,809	...	...	...	1	...	2	1	...	...	1	...	1	6	...	...	1	6	3	3	...	...	1	...	...	...	14
Simla	33,594	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2
Jullundur	783,020	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...	1	...	...	2
Ludhiana	583,245	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	1	...	3
Hoshiarpur	938,890	...	...	...	1	1	...	3	1	...	...	...	...	5	...	...	...	...	1	...	...	1	...	...	...	...	2
Kangra	743,758	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	2
Gurdaspur	906,126	1	...	1	1	...	...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	1	1	...	3
Sialkot	994,458	1	...	2	1	...	...	...	...	...	...	...	...	4	...	...	...	1	...	1	...	...	...	1	1	...	6
Amritsar	832,750	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gujrat	616,347	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2
Gujranwala	450,576	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Lahore	775,551	1	2	...	...	3	3	2	1	1	...	...	1	14	...	...	1	2	2	...	1	2	1	...	...	...	9
Ferozepore	533,416	...	...	...	...	1	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Montgomery	359,437	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mooltan	459,736	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Muzaffargarh	295,547	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	309,978	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	2
Dera Ismail Khan	394,864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhang	348,027	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahpur	368,726	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jhelum	500,988	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	2
Hazara	367,218	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Rawalpindi	690,617	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peshawur	500,443	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Kohat	145,419	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bannu	287,547	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL FOR PUNJAB	17,487,096	4	2	4	10	11	14	29	4	50	17	2	2	149	1	1	3	12	9	10	6	11	16	4	4	2	79

4.—PUNJAB.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																							
		1875.													1876.										
		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.
Gurgaon	696,646	...	...	...	...	1	49	116	189	162	9	...	...	526	1	...	...	1	...	10	1	...	...	...	...	...	13
Delhi	608,850	1	...	...	..	12	29	70	51	100	10	8	...	287	...	1	...	1	...	...	...	...	...	...	...	...	...
Rohtak	536,059	1	...	...	...	17	72	139	6	1	3	9	...	239	...	...	...	...	...	15	...	...	...	...	...	...	17
Hissar	484,081	...	...	...	1	4	...	4	49	16	67	1	...	142	...	...	...	...	...	...	...	...	...	...	...	...	.....
Sirsa	210,795	...	...	...	...	...	3	12	10	1	...	...	...	26	...	...	...	...	...	1	...	...	...	...	...	...	1
Karnal	610,027	...	...	...	...	...	...	25	12	32	3	...	...	72	...	...	1	...	...	...	...	...	...	...	...	...	1
Umballa	1,008,869	...	1	...	3	2	109	99	61	60	11	...	...	349	...	2	1	1	3	...	...	...	...	...	...	...	7
Simla	33,594	...	...	...	...	...	4	127	27	...	...	...	...	158	...	...	...	...	...	...	...	...	...	...	...	...	.....
Jullundur	783,020	...	...	...	...	1	...	11	12	32	7	...	...	63	...	...	...	...	...	...	...	...	...	...	...	...	.....
Ludhiana	583,245	...	...	1	1	...	...	30	31	20	...	...	...	83	...	...	...	...	1	...	1	...	...	...	...	...	2
Hoshiarpur	938,890	...	...	2	...	...	...	5	34	97	98	...	...	236	...	...	...	...	...	...	...	...	...	...	...	...	.....
Kangra	743,758	...	2	...	1	1	11	122	288	197	81	7	...	710	1	1	...	...	...	1	...	...	...	...	...	...	3
Gurdaspur	906,126	1	...	...	...	...	...	1	225	557	613	85	...	1,482	...	...	...	...	...	1	1	...	1	...	11	...	14
Sialkot	994,458	1	...	...	...	...	...	...	...	74	216	3	...	294	...	...	...	...	...	...	...	42	388	33	...	...	463
Amritsar	832,750	...	...	...	...	...	1	28	504	583	149	3	1	1,269	...	...	...	1	...	1	1	8	19	...	...	...	30
Gujrat	616,347	...	...	...	1	...	...	...	...	1	...	...	...	2	...	...	...	...	...	2	53	191	283	43	...	...	572
Gujranwala	550,576	...	...	...	1	...	...	...	...	...	8	...	...	9	...	...	...	...	1	1	2	66	168	33	...	1	272
Lahore	773,551	...	...	1	1	1	1	1	12	177	82	12	...	288	2	2	...	2	...	2	119	474	117	4	...	...	722
Ferozepur	633,416	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	.....
Montgomery	359,437	...	...	...	...	...	...	...	1	...	1	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	1
Mooltan	459,736	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	32	...	...	32
Muzaffargarh	295,547	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Dera Ghazi Khan	309,978	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	3	...	1	...	...	...	...	5
Dera Ismail Khan	394,804	...	...	...	...	1	...	...	...	1	...	...	...	2	...	1	...	...	...	...	9	...	32	117	81	...	240
Jhang	348,027	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	3	...	...	...	3
Shahpur	368,796	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	157	291	41	15	...	...	...	504
Jhelum	500,988	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	40	42	132	63	24	...	...	301
Hazara	367,218	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	4	50	93	92	6	...	245
Rawalpindi	699,647	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	2	109	313	109	11	1	...	626
Peshawar	500,443	...	1	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	61	510	67	...	638
Kohat	145,419	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	3	19	2	24
Bannu	257,547	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	463	47	18	375	95	...	998
TOTAL FOR PUNJAB	17,487,096	4	4	4	10	41	280	783	1,515	2,117	1,358	129	1	6,246	4	7	2	6	8	236	1,096	1,396	1,421	1,277	280	3	5,736

5.—CENTRAL PROVINCES AND THE BERARS.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1867.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																									
		1873.													1874.												
		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.
Buldana	365,779	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	2	...	...	...	...	...	...	...	...	2
Akola	480,657	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Ellichpur	237,790	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Amraoti	496,379	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Basim	260,905	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Wun	343,426	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR BERARS	2,184,945	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	2	...	...	...	...	...	...	...	...	2
	Population, Census of 1872.																										
Sambalpur	319,902	...	40	190	69	...	...	...	...	4	6	...	...	309	...	...	...	...	...	...	...	...	...	...	...	12	12
Bilaspur	516,722	...	...	20	...	...	...	...	...	...	...	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	.....
Raipur	883,246	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	.....
Bhandara	564,813	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Nagpur	631,109	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Wardha	354,720	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Chanda	456,790	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	.....
Upper Godavery	24,425	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Saugor	527,725	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Damoh	269,642	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Balaghat	280,101	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Murwara	145,933	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Jubbulpore	382,926	...	1	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	.....
Narsinghpur	339,395	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	1	1	...	...	...	...	...	2
Mandla	213,018	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Seoni	321,623	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Chindwara	265,191	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Betul	278,857	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Hoshungabad	440,186	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	.....
Nimar	140,684	...	...	...	...	...	...	...	...	...	...	10	...	10	...	...	...	...	...	...	...	...	...	...	...	...	.....
Burhanpur	70,540	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR CENTRAL PROVINCES	7,127,608	1	41	210	701	...	...	...	...	4	7	10	...	344	...	...	...	...	...	1	1	...	...	...	...	12	14

5.—CENTRAL PROVINCES AND THE BERARS.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1867.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																							
		1875.												1876.											
		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.
Buldana	365,779	...	...	...	...	84	462	4,252	1,385	216	19	...	...	6,418	...	...	...	...	...	...	9	11	101	21	11	1	154
Akola	489,657	...	...	...	...	165	3,033	3,712	874	63	...	...	...	7,847	...	...	...	...	...	...	...	...	...	105	108	20	233
Ellichpur	237,799	...	...	...	...	...	106	1,397	553	49	2	...	...	2,107	...	...	...	...	...	...	...	...	...	...	...	...	.....
Amraoti	496,379	...	...	...	...	...	19	636	1,344	888	177	39	...	3,103	...	...	...	...	...	...	4	192	241	339	145	69	990
Basim	209,905	...	...	...	...	...	5	314	642	186	18	...	...	1,165	...	...	...	...	...	...	3	131	210	189	63	37	633
Wun	343,426	...	...	...	...	...	...	3	1,042	605	102	13	...	1,765	...	...	...	...	19	100	126	135	110	66	83	35	683
	2,181,945	...	...	...	...	249	3,625	10,374	5,840	2,007	318	52	...	22,405	...	...	...	...	19	100	142	469	662	720	410	152	2,683
TOTAL FOR BERARS	Population, Census of 1872.																										
Sambalpur	319,062	...	...	...	...	...	...	16	77	137	24	...	...	254	...	7	46	20	90	204	72	102	46	66	...	5	658
Bilaspur	516,722	...	7	77	32	498	604	466	748	79	14	...	...	2,525	...	...	...	...	...	...	...	...	...	1	...	...	1
Raipur	883,246	...	...	16	...	227	779	1,279	1,397	511	129	76	34	4,449	...	...	...	40	52	1	...	...	...	...	...	12	105
Bhandara	564,813	...	...	...	...	...	45	4	42	35	85	45	5	261	...	...	...	...	...	...	75	132	96	13	230	59	605
Nagpur	631,109	...	...	...	...	...	...	60	1,541	481	29	...	...	2,111	...	...	...	...	...	2	1	9	101	62	38	456	30	701
Wardha	354,720	...	...	...	...	...	...	31	1,355	541	69	19	...	2,015	...	...	...	...	...	...	23	15	177	81	53	88	6	443
Chanda	456,700	...	...	...	...	...	...	...	167	283	33	59	9	551	12	...	...	247	514	851	624	600	150	1	76	51	3,226
Upper Godavery	24,425	...	...	...	...	...	...	...	...	...	11	7	2	20	...	...	122	...	...	...	...	...	...	...	...	...	...
Saugor	527,725	...	...	...	...	...	...	...	16	4	...	...	...	20	...	...	...	...	18	331	1,265	1,141	216	4	...	...	2,975
Damoh	269,642	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	6	112	566	139	4	...	...	817
Jubbulpore	280,101	...	...	...	...	2	2	...	...	...	...	...	...	4	...	...	3	1	...	...	...	...	...	...	42	19	65
Mandla	145,933	...	...	...	...	18	8	...	...	...	...	...	...	26	...	...	...	...	...	37	134	39	4	...	...	...	214
Murwara	382,926	...	...	...	1	1	...	...	...	7	2	...	...	11	...	...	2	11	48	67	532	492	116	10	...	...	1,278
Sohagpore	339,395	...	...	...	...	...	15	17	30	31	...	...	...	93	...	...	...	...	42	1,358	1,854	858	80	...	...	...	4,192
Narsinghpur	213,018	...	...	...	...	...	...	...	7	38	2	...	...	47	...	...	41	78	...	21	28	7	...	...	...	...	175
Seoni	321,623	...	...	...	...	...	...	...	...	3	...	...	...	3	...	...	...	18	39	17	94	130	29	22	82	11	442
Chindwara	265,191	...	...	...	...	...	...	...	454	100	6	...	...	650	...	...	...	...	...	...	...	29	6	...	83	6	123
Betul	278,857	...	...	...	...	12	...	55	116	129	9	4	...	325	...	...	107	172	282	130	75	433	106	29	19	...	1,353
Hoshangabad	440,186	...	...	...	10	192	158	59	63	91	39	19	7	629	...	...	86	441	738	742	248	83	29	4	...	...	2,371
Nimar	140,684	...	...	...	21	34	40	63	180	43	26	13	3	423	...	...	...	2	...	...	15	117	74	15	...	...	223
Bachaspur	70,540	...	...	...	13	...	3	179	31	...	...	...	...	226	...	...	...	...	...	46	24	65	...	...	...	...	135
TOTAL FOR CENTRAL PROVINCES	7,427,608	...	7	93	77	984	1,654	2,220	6,221	2,624	465	237	58	14,643	12	7	407	1,032	1,823	3,835	5,176	5,062	1,234	260	1,076	198	20,124

6.—BOMBAY PRESIDENCY.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1873.													1874.											
		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.
Khandesh	1,628,642	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Nasik	734,386	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Phanednagar	773,938	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	1	...	...	...	1	...	...	...	2
Poona	907,235	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Sholapur	662,986	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Satara	1,116,050	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Belgaum	938,750	10	6	...	...	...	...	...	...	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	.....
Dharwar	988,037	12	5	...	...	...	...	...	...	...	...	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	1
Kaladgi	816,037	17	61	12	...	...	...	...	...	...	...	...	...	90	...	...	...	...	1	...	...	...	...	...	...	...	.....
Kanara	398,406	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Ratnagiri	1,010,136	...	15	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	.....
Colaba	350,405	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	19
Bombay City	644,405	23	13	17	12	8	7	3	1	2	3	2	2	93	1	...	2	2	7	...	2	1	2	2	...	...	.....
Tanna	847,424	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	4
Surat	607,087	...	...	...	6	...	2	...	2	1	...	...	...	11	1	...	1	...	1	...	1	...	...	...	...	...	.....
Broach	350,322	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	1
Kaira	782,733	...	...	1	1	13	...	1	...	...	...	...	...	16	...	...	...	...	...	1	...	...	...	...	...	...	.....
Panchmahals	240,743	...	...	...	...	2	...	2	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	10
Ahmedabad	829,037	...	...	5	15	1	1	...	...	...	...	...	...	22	...	...	1	6	3	...	...	...	...	...	...	...	.....
Kurrachi	423,495	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Hyderabad	721,947	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Thar and Parkar	180,761	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Shikarpur	776,227	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Upper Sind Frontier	89,995	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR BOMBAY	16,228,774	62	100	35	34	24	10	6	3	3	3	2	2	284	2	...	4	8	13	1	3	1	3	2	...	...	37

6.—BOMBAY PRESIDENCY.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1872.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1875.													1876.											
		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.
Khandesh	1,028,042	...	...	...	26	809	1,009	2,825	870	22	12	...	...	6,324	...	...	...	...	...	...	...	3	13	13	...	...	29
Nasik	731,386	...	...	10	481	1,014	610	386	201	93	14	3	...	2,812	...	...	...	...	...	...	61	212	52	8	...	...	333
Ahmednagar	773,938	...	...	...	65	456	1,297	1,091	815	197	89	20	...	4,933	...	...	...	...	...	...	111	380	442	87	53	42	1,115
Poona	907,235	...	...	...	43	1,402	1,705	776	506	201	16	...	...	4,649	...	...	...	...	...	21	157	278	108	46	88	21	719
Sholapur	662,986	...	...	...	1	...	94	2,453	731	210	33	3	11	3,536	...	...	...	...	25	97	1,094	583	154	98	170	24	2,235
Satara	1,116,059	...	...	...	...	...	53	1,505	1,588	416	95	9	...	3,666	...	...	...	...	...	259	816	503	160	140	38	32	1,938
Belgaum	938,750	...	...	...	...	...	...	49	281	445	1,469	451	50	2,736	54	193	454	614	1,077	794	385	108	42	159	136	943	4,950
Dharwar	988,037	...	...	...	...	...	...	...	...	210	1,056	539	477	2,288	642	834	1,797	1,081	643	486	169	61	155	162	280	791	7,602
Kaladgi	816,037	...	...	...	...	...	...	13	544	441	157	172	38	1,365	67	80	459	889	1,575	968	612	195	29	71	22	105	5,072
Kanara	308,406	...	...	...	...	...	...	...	...	...	6	23	18	47	65	167	188	236	100	88	12	10	...	...	30	53	929
Ratnagiri	1,019,136	...	...	...	8	3	1	13	238	216	162	178	51	900	17	45	79	12	2	8	10	30	...	1	...	2	206
Colaba	350,405	...	...	...	...	3	18	312	721	361	37	1	...	1,453	..	...	...	...	...	...	11	40	10	...	...	...	70
Bombay City	644,405	1	1	...	31	67	132	279	177	45	56	38	21	848	1	...	2	4	5	9	119	141	64	23	6	...	374
Tanna	847,424	...	...	...	3	182	1,079	1,545	1,853	492	234	93	88	5,969	17	5	...	...	2	196	79	256	97	28	...	13	693
Surat	607,087	...	...	...	...	1	315	288	76	89	124	53	19	965	17	50	112	105	390	151	156	109	26	5	10	1	1,132
Broach	350,322	...	...	...	...	44	614	167	37	...	...	...	...	862	...	...	...	...	135	190	313	105	3	...	...	...	746
Kaira	782,733	...	...	...	95	838	942	150	14	4	...	40	21	2,104	...	...	1	176	609	388	127	12	2	...	...	...	1,315
Panchmahals	240,743	...	...	...	41	280	673	83	3	...	...	...	...	1,080	...	...	...	...	109	70	78	...	...	...	...	...	203
Ahmedabad	829,637	...	...	...	1	251	577	68	164	17	...	...	...	1,078	19	79	427	676	632	387	93	415	64	26	...	...	2,818
Kurrachi	423,495	...	...	...	...	...	...	1	...	...	...	17	25	43	...	...	...	...	...	...	...	...	...	...	...	...	.....
Hyderabad	721,947	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Thar and Parkar	180,761	...	...	...	...	...	5	1	...	...	...	...	...	6	...	...	...	...	8	50	29	1	...	...	...	...	88
Shikarpur	776,227	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Upper Sind Frontier	80,985	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR BOMBAY	16,228,774	1	1	10	795	5,359	10,375	12,908	8,619	3,495	3,551	1,690	819	47,573	860	1,453	3,519	3,773	5,312	4,168	4,423	3,371	1,421	858	833	2,087	32,117

7.—MADRAS PRESIDENCY AND BURMA.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876.

DISTRICTS.	Population, Census of 1871.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1873.													1874.											
		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.
Ganjam	1,520,088	...	29	6	...	23	6	10	5	...	1	...	4	83	27	27	7	3	11	2	50	96	21	...	...	...	243
Vizagapatam	2,159,199	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Godavery	389,712	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Kistna	282,358	...	...	...	...	...	...	...	...	24	60	11	...	95	...	...	...	...	...	...	...	...	...	...	...	...	.....
Nellore	263,820	356	120	14	1	3	3	...	...	...	...	...	...	497	...	...	...	...	...	...	...	...	...	...	...	...	.....
Cuddapah	1,351,194	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Bellary	1,608,606	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Kurnool	959,840	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
North Arcot	2,015,278	1	...	...	...	...	...	...	...	1	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1
Madras	397,552	...	1	...	1	...	...	...	...	4	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	.....
Chingleput	938,184	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
South Arcot	1,755,817	10	6	1	2	1	10	3	3	7	3	3	1	50	...	1	3	1	3	...	3	2	2	2	1	1	19
Salem	1,906,695	...	...	...	...	...	...	...	6	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	2	2
Coimbatore	1,763,274	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Trichinopoly	1,200,408	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Tanjore	1,973,731	...	5	2	2	8	6	11	2	6	5	6	1	54	5	...	3	2	2	3	3	5	2	1	3	4	33
Madura	2,206,615	3	5	4	6	2	4	...	...	...	...	1	...	25	...	...	...	...	...	...	...	...	...	...	...	...	.....
Tinnevelly	1,693,959	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
Malabar	2,261,250	1	...	1	11	9	...	...	...	...	...	...	...	22	...	...	...	6	1	3	1	1	...	...	1	...	13
South Canara	918,362	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	2	...	...	...	...	...	...	2
Nellgheries	49,501	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	.....
TOTAL FOR MADRAS	27,791,943	371	166	27	23	46	29	24	16	42	69	21	6	840	32	29	13	12	17	10	57	103	25	3	5	7	313
	Population, Census of 1872.																										
Arakan	475,573	...	...	2	2	...	3	4	...	...	...	...	...	11	...	...	1	...	25	6	41	..	...	...	...	7	80
Pegu	1,662,058	165	635	797	956	737	580	1,072	1,209	271	78	156	163	6,729	195	122	27	65	11	2	7	3	4	...	4	...	441
Tenasserim	600,727	8	232	347	179	47	24	72	38	90	157	39	132	1,365	162	56	65	47	54	36	14	...	...	2	3	...	439
TOTAL FOR BRITISH BURMA	2,738,358	173	867	1,056	1,137	784	607	1,148	1,247	361	235	195	295	8,105	358	178	93	112	90	44	62	3	4	2	7	7	960

7.—MADRAS PRESIDENCY AND BURMA.

Cholera Deaths of the General Population registered during the Four Years from 1873 to 1876—continued.

DISTRICTS.	Population, Census of 1871.	NUMBER OF DEATHS REGISTERED IN EACH MONTH.																								
		1875.													1876.											
		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.
Ganjam	1,520,088	...	1	1	4	1	...	3	15	20	5	178	104	332	26	19	46	171	155	837	1,436	724	204	102	160	66	3,926
Vizagapatam	2,150,199	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	7	30	11	9	48	351	299	245	125	128	20	1,273
Godavery	398,712	...	...	...	...	...	...	...	...	...	...	...	12	12	350	115	35	14	1,400	2,008	1,939	641	292	93	...	...	6,977
Kistna	282,358	...	...	...	...	...	...	...	...	5	6	7	22	40	199	279	62	74	674	1,512	2,159	874	387	129	17	370	6,737
Nellore	263,820	...	...	...	...	...	...	151	1,072	910	353	173	358	3,017	706	336	99	83	51	176	357	533	638	465	997	3,884	8,385
Cuddapah	1,351,194	...	...	...	...	...	31	763	1,513	1,394	492	245	213	4,651	175	143	41	466	641	967	1,520	1,232	1,102	540	970	3,777	11,574
Bellary	1,668,006	...	...	...	...	...	...	9	569	657	672	545	134	2,586	150	696	1,617	2,282	1,505	2,229	1,970	1,010	905	166	1,341	2,858	16,129
Kurnool	959,640	...	...	...	...	...	...	...	40	447	202	118	19	886	44	87	316	988	855	709	1,211	423	169	38	876	6,042	11,758
North Arcot	2,015,278	...	...	...	...	...	5	1,357	1,746	937	624	1,194	5,863	2,246	1,653	1,253	1,374	1,336	923	1,375	594	214	683	853	2,471	14,075
Madras	397,552	...	...	...	...	...	...	...	185	248	147	170	129	879	166	194	122	116	148	165	231	240	61	39	98	464	2,035
Chingleput	938,184	...	...	...	...	...	3	4	215	200	346	318	327	1,503	517	194	52	96	127	188	182	177	110	56	60	191	1,950
South Arcot	1,755,817	3	6	...	3	3	216	2,338	2,338	906	695	659	1,167	8,334	2,208	1,781	828	593	958	906	1,325	473	117	18	59	277	9,543
Salem	1,966,995	...	...	...	...	...	...	135	464	1,552	1,527	1,510	1,360	6,548	1,583	1,487	1,316	2,205	1,554	613	411	293	152	124	903	3,928	14,759
Coimbatore	1,763,274	...	...	...	...	...	60	383	427	1,239	2,741	4,680	3,400	12,930	613	292	102	40	89	212	119	73	22	9	321	2,157	4,049
Trichinopoly	1,200,408	...	...	1	...	9	549	2,847	2,008	780	457	260	360	7,271	522	617	298	224	300	708	525	406	30	70	148	1,426	5,274
Tanjore	1,973,731	4	7	2	65	1,589	4,072	7,184	1,733	945	822	348	454	18,125	1,237	1,359	318	126	414	1,051	1,808	481	201	112	55	863	8,015
Madura	2,266,615	...	...	...	...	...	1	113	412	915	2,894	4,674	3,393	11,622	737	438	256	145	103	53	21	...	63	46	140	701	2,703
Tinnevelly	1,693,959	...	...	...	9	30	59	227	541	1,341	1,159	1,085	2,073	6,515	737	209	87	48	120	343	306	731	648	458	768	1,680	6,195
Malabar	2,261,259	1	2	2	3	1	1	...	26	146	579	1,227	1,375	3,563	2,329	1,655	1,370	1,452	885	985	1,338	1,056	206	29	...	7	11,303
South Canara	918,362	...	...	...	...	...	...	...	...	...	...	...	8	8	12	62	42	136	49	41	74	103	99	...	...	...	618
Neilgherries	40,501	...	...	...	...	...	...	...	3	...	1	...	8	12	...	...	9	...	...	7	3	...	...	5	...	1	25
TOTAL FOR MADRAS	27,794,943	8	16	6	84	1,633	5,892	14,162	12,918	13,541	13,966	16,021	16,220	94,497	14,007	11,083	8,299	10,834	11,463	14,681	18,611	10,363	5,265	3,280	7,894	31,183	148,193
	Population, census of 1872.																										
Arakan	875,573	...	...	4	...	...	5	...	...	...	...	...	...	7	...	...	60	62	8	371	219	189	240	77	82	...	1,308
Pegu	1,662,058	...	...	4	...	...	3	...	...	2	...	29	577	615	130	27	317	180	12	261	76	16	123	11	1	128	1,282
Tenasserim	600,727	1	...	...	25	18	23	39	3	...	...	...	29	138	26	30	38	...	...	43	...	...	...	...	5	...	142
TOTAL FOR BRITISH BURMA	2,738,358	1	...	8	25	18	29	39	3	2	...	29	606	760	156	57	415	242	20	675	295	205	363	88	88	128	2,732

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