

REPORT

S1664

OF AN

INVESTIGATION INTO THE CAUSES OF

MALARIA IN BOMBAY

AND THE MEASURES NECESSARY
FOR ITS CONTROL

BY

CHARLES A. BENTLEY, M.B., D.P.H., D.T.M. & H.,

Officer on Special Duty.

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P R E F A C E .

In presenting this report upon "The Causes of Malaria in Bombay and the Measures Necessary for its Control" I desire to acknowledge the great assistance afforded to me in the work of investigation by the members of the Malaria Investigation Committee. But for the facilities freely granted to me by the Municipal Commissioners Mr. W. D. Sheppard, I. C. S., and Mr. P. R. Cadell, I. C. S., the work of investigation in the City generally would have been impossible; and the cordial help given me by the Honourable Mr. J. P. Orr, I. C. S., Chairman of the City of Bombay Improvement Trust, Mr. W. C. Symes and Mr. A. H. Froom representing the Port Trust and Mr. A. Muirhead and Dr. A. H. Deane representing the G. I. P. and B. B. & C. I. Railway Companies, respectively, lightened the work in special areas to a very great extent.

I am greatly indebted also to Dr. J. A. Turner, the Executive Health Officer of Bombay, for much valuable information, for returns regarding sickness and for many specimens of mosquito larvæ collected by officers of the Health Department. My thanks are also due to Colonel W. B. Bannerman, I. M. S., Director, and Major W. G. Liston, I. M. S., Acting Director, of the Bombay Bacteriological Laboratory at Parel, for the facilities placed at my disposal there and for advice and help which has been of the greatest assistance.

The work of investigation in areas controlled by the Port Trust was greatly simplified by help afforded to me on many occasions by Mr. P. Glynn Messent, M.I.C.E., Chief Engineer of the Bombay Port Trust, and Dr. S. A. Powell, Chief Medical Officer, and Messrs. Price, Wills and Reeves, the Contractors for the New Dock, granted me every facility for carrying on the enquiry in the New Dock Works.

Much of the information given in Part I and Chapter I of Part II of the report was derived from the pages of the recently published Gazetteer of Bombay City, and the Administration Reports of the Municipality. A special report by Dr. J. A. Turner, Executive Health Officer, which contained detailed information regarding the anti-malaria measures adopted in the City from time to time, was most useful in drawing up the Chapter on "The History of Malaria Prevention in Bombay."

Section 1 of Chapter IV in Part III which deals with "The Cost of Mosquito Prevention in different parts of the World" is largely based upon information derived from Major Ross' recent book on "The Prevention of Malaria" which has also suggested to some extent the general arrangement adopted in this report; and Sir Rupert Boyce's "Mosquito or Man," and "Health Administration in the West Indies" was of assistance in dealing with "The Legal Aspect of Malaria Prevention." Colonel W. C. Gorgas, U. S. A., not only provided the formula for his valuable larvacide, but supplied reprints of a number of his papers dealing with mosquito prevention and they have been freely quoted from in this report.

My assistants in the investigation were Assistant Surgeon D. A. Vaz, L.M. & S., and Sub-Assistant Surgeons T. G. Akula and Keshavlal G. Modi, and Mr. J. D. A. Fernandes acted as clerk, and I desire to express my appreciation of their work. During a period of three months from May 1st to August 1910 Dr. R. B. Khambata, D.P.H., was attached to the staff of the investigation and afforded much useful assistance.

CHAS. A. BENTLEY.

Bombay, April 1911.

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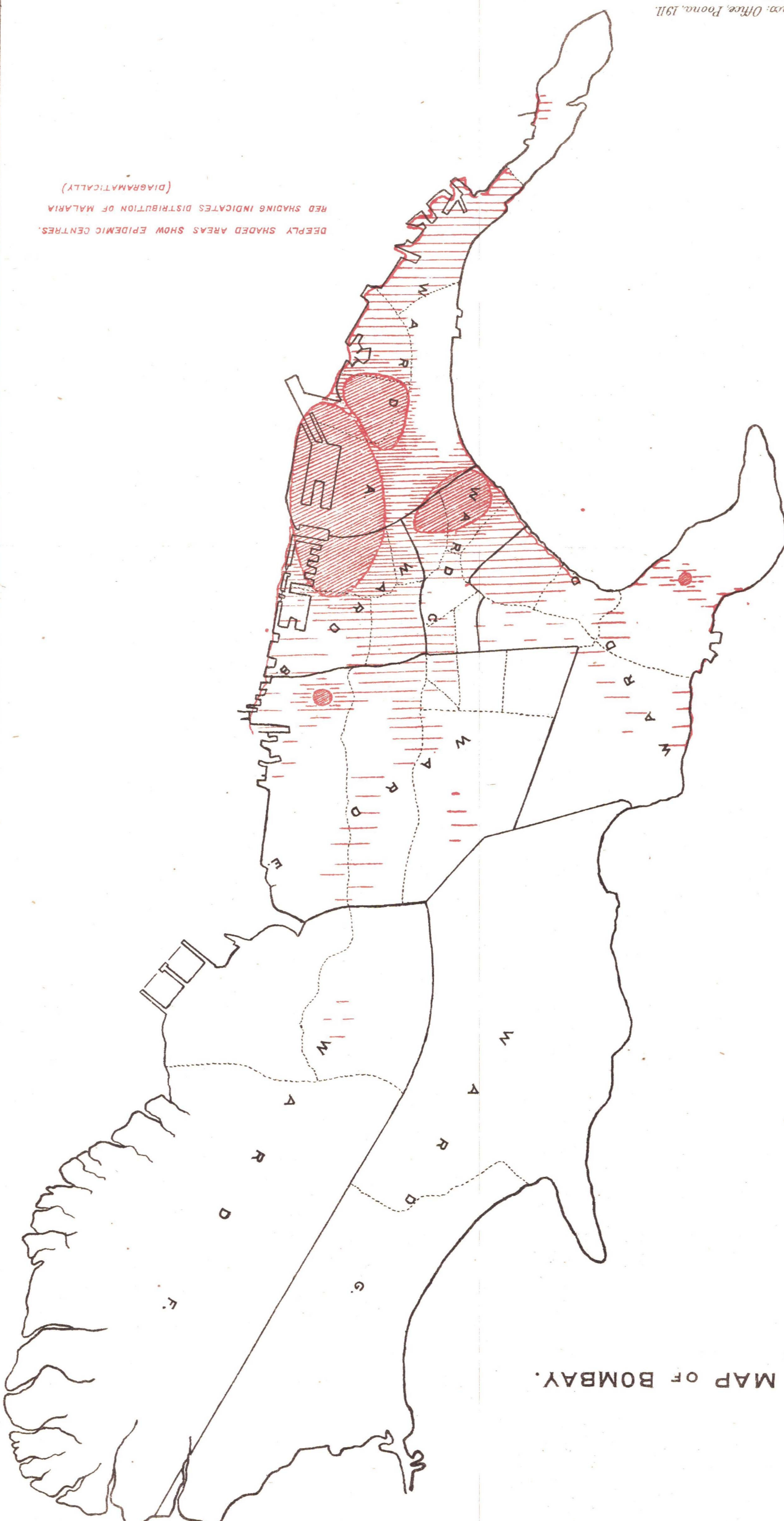
MAP OF THE TOWN AND ISLAND OF BOMBAY.

Scale, 2400 Ft. = 1 Inch.

Ward Boundaries.....
Section Boundaries.....



DEEPLY SHADED AREAS SHOW EPIDEMIC CENTRES.
RED SHADING INDICATES DISTRIBUTION OF MALARIA
(DIAGRAMMATICALLY)



MAP OF BOMBAY.

APPENDIX I.

Note upon the non-malarial fevers of Bombay.

At one time it was customary to class almost all cases of febrile disease met with in India as malaria, either under the head of "Remittent Fever" or "Intermittent Fever" (Ague). No doubt many cases of non-malarial fever were thus included under the general heading of malaria; but now-a-days the tendency is to go to the other extreme and mild and evanescent fevers, many of which are undoubtedly due to malaria, are placed under another heading. By far the largest proportion of cases of fever met with in Bombay during the present investigation have been cases of malaria. These cases have been almost all of an intermittent type and very few cases of fever which would be generally called "Remittent" or "Continued", showed malarial parasites on examination of the blood. A few cases of Enteric Fever have been met with and a rather larger number of cases of the so-called "Bombay Fever", a continued fever lasting from 5 to 10 days. It has been remarked that this latter type of fever very frequently attacks people who have gone to reside in newly built houses.

In none of the 6,400 blood specimens examined during the investigation were the spirilla of Relapsing Fever seen. This is interesting in view of the fact that in 1907 and 1908 there was a small epidemic of relapsing fever in Bombay, the occurrence of which was recorded by Captain Mackie, I. M. S. A few cases of fever which had been reported as "Relapsing Fever" on clinical grounds, turned out to be malaria (malignant tertian) upon examination of the blood.

Powell in his paper upon "the Blood Examination of cases of Febrile Diseases in Bombay" (I. M. G. March 1904) records the following results in regard to 3,413 cases of "Fever":—

Diagnosed by the finding of parasites in the blood—

(1) Malaria parasites present in	...	...	2,542
(2) Spirilla of Relapsing Fever in	...	...	94
(3) Plague Bacilli (out of 117 cases)	...	...	15
(4) Filaria nocturna causing fever	...	...	1
			2,652

Cases in which blood examination was negative, subsequently diagnosed on other grounds—

(5) Plague (except 15 mentioned above)	...	...	102
(6) Pneumonia	...	...	92
(7) Tuberculosis	...	...	94
(8) Pleurisy, Influenza, Bronchitis	...	...	77
(9) Enteric Fever	...	...	29
(10) Gonorrhoea, Bubo and other form of sepsis	...	...	78
(11) Syphilitic Fever	...	...	6
(12) Leprosy	...	...	4
(13) Liver abscess	...	...	9
(14) Small-pox, chicken-pox, measles, mumps, tonsillitis, etc.	...	...	60

Powell adds that "In 210 cases the diagnosis was reduced to unproved malaria (and undoubtedly the majority were such) febricula, or simple continued fever."

There are strong grounds for assuming that tuberculosis, plague, pneumonia and respiratory diseases are responsible for the largest number of so-called "Remittent Fevers" met with in Bombay. Tuberculosis is exceedingly common, many cases having been met with during the investigation. It is also exceedingly fatal, especially when it occurs among people of the poorer classes; and there are good reasons for believing that a very large proportion of the deaths recorded under the heading "Remittent fever" are due to this cause.

As regards the non-fatal short-term fevers prevalent in Bombay, it has already been pointed out that, the largest proportion show the presence of malarial parasites on blood examination; but it is probable that the existence of other specific fevers such as the recently discovered "Sand-fly Fever" may account for a proportion of the non-malarial fevers that are met with; and it is possible that fevers of this kind may be not uncommon in Mahim and other parts of the island, where malaria is prevalent to only a slight extent.

Kala-azar does not appear to occur in Bombay, and no case has been met with in a person belonging to the City; but a boy from Bengal suffering from Kala-azar was admitted to one of the hospitals in the City. The diagnosis was confirmed by the finding of Leishman-Donovan parasites after splenic puncture.

APPENDIX II.

Note upon Black-water Fever in Bombay.

Occasionally cases of Black-water fever are admitted to hospitals in Bombay; but in the majority of instances the patients do not appear to have belonged to the City. During the investigation however, two fatal cases of what appears to have been undoubted Black-water fever were reported. In neither case was the disease returned as Hæmoglobinuria. Unfortunately neither of the cases was seen, but a few particulars were obtained from the medical men who attended. One case occurred in the Frere Road and the other in the North Fort, both of which areas are intensely malarious. Both cases were children, one a Jewish boy aged 7 and the other a Parsi child. The Jewish boy had two attacks, a second one only a month after the 1st. He had suffered from fever and had a large spleen. During an attack of fever and after treatment with quinine he was suddenly attacked with persistent bilious vomiting, had a rigor and passed reddish-black urine. Next day he was seen to be intensely anaemic and jaundiced. He rallied rapidly but a month later fever again occurred and during treatment with quinine a sudden return of the former symptoms took place. This time he did not rally, but sank with symptoms of heart failure. In the other case there was a similar history, but the patient died of suppression of urine during the attack. In another fatal case of the disease which occurred in hospital in 1910, all that could be learned was the fact that the patient was a European, and had previously lived in Burma. No particulars could be obtained as to the length of his stay in Bombay or his place of residence. A definite history of Black-water fever was obtained from a European who lived at one time not far from Bombay in a small village reputed to be very malarious. These facts are recorded, as they have a definite bearing upon the relationship of Black-water fever to exposure to frequent infections by malaria.

APPENDIX III.

TABLE I.

CLIMATIC DATA FOR BOMBAY (COLABA).

Temperature (in degrees Fahrenheit).

	Means derived from 24 hourly observations 1847—1905.	Mean departure of the means.	Means for observation hours 1873—1905.			Diurnal range of temperature 1873—1905.		Mean monthly and annual extremes 1873—1905.		Mean monthly and annual range 1873—1905.	Absolute extremes (1847—1905).						Mean diurnal variability of temperature 1887—1896.
			6 A.M.	2 P.M.	10 P.M.	Periodic.	Non-periodic.	Maximum.	Minimum.		Monthly means.		Daily means.		Individual hours.		
											Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	
January ...	73.9	1.25	69.4	79.8	72.8	10.6	14.4	88.1	63.5	19.6	77.3	71.1	79.7	65.0	91.0	55.2	0.88
February ...	75.0	1.25	70.0	80.1	73.6	10.1	14.0	86.8	64.1	22.7	77.7	70.1	82.1	62.2	96.2	58.3	0.84
March ...	76.8	0.95	74.8	83.1	77.4	8.8	12.1	88.7	69.6	19.1	81.8	75.1	85.2	68.9	100.2	63.9	0.74
April ...	82.3	0.97	78.3	86.2	80.7	7.9	10.8	90.1	74.6	15.5	85.0	78.5	87.6	74.6	97.4	68.5	0.65
May ...	84.7	0.84	81.5	89.2	83.0	7.0	9.6	90.9	78.2	12.7	87.6	82.7	89.5	77.1	96.5	74.1	0.42
June ...	83.2	0.88	81.2	85.7	82.3	4.5	8.0	90.7	75.5	15.2	85.4	81.0	89.4	75.6	96.4	72.5	0.96
July ...	81.0	0.68	79.8	82.6	80.4	2.9	6.8	86.5	75.3	11.2	83.1	79.3	83.3	75.5	92.4	71.9	0.84
August ...	80.2	0.60	78.8	82.2	79.6	3.4	7.0	85.1	75.1	10.0	82.1	78.7	84.3	75.6	89.6	71.9	0.76
September ...	80.2	0.74	78.0	82.8	79.4	4.7	8.0	85.9	74.5	11.4	81.9	78.9	84.8	73.4	94.0	70.5	0.77
October ...	81.2	0.86	77.5	85.7	79.9	8.1	11.0	90.5	74.0	16.5	83.4	79.5	86.5	74.8	95.7	70.5	0.75
November ...	79.1	1.14	74.6	81.9	77.5	10.2	13.4	89.9	70.3	19.6	81.5	75.9	85.5	71.2	96.5	62.7	0.74
December ...	76.1	1.01	71.5	82.8	74.5	10.8	14.4	87.2	66.8	20.4	78.8	72.8	82.0	64.9	94.0	57.2	0.79
Year ...	79.6	0.54	76.2	83.6	78.4	7.4	10.8	92.4	62.3	30.1	87.6	70.1	89.5	62.2	100.2	58.3	0.76

APPENDIX III.

TABLE II.

CLIMATIC DATA FOR BOMBAY (COLABA).

Precipitation, Moisture, Wind.

	Rainfall, 1846-1905.				Cloudiness whole sky = 10 means derived from 5 typical observations during the day 1873-1905.	Moisture (1873-1896).								Wind (1873-1896).								
	Average amount.	Greatest monthly and annual amount.	Greatest amount in one day.	Average number of rainy days.		Pressure of vapour.				Relative humidity of the air complete saturation—1·000.				Result and components (in miles per hour).				Mean velocity in miles per hour derived from 24 hourly observations.				
						6 A.M.	2 P.M.	10 P.M.	Means derived from 24 hourly observations.	6 A.M.	2 P.M.	10 P.M.	Means derived from 5 typical observations during the day.	7 to 8 A.M.	3 to 4 P.M.	10 to 11 P.M.	Means derived from 24 hourly observations.					
	In.	In.	In.	In.		In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
January ...	0·12	2·22	1·87	0·4	1·1	0·540	0·590	0·594	0·581	0·764	0·581	0·747	0·674	4·7 N.	6·0 E.	8·7 N.	9·6 W.	6·8 N.	0·8 W.	6·7 N.	0·7 W.	10·0
February ...	0·03	0·51	0·31	0·3	1·1	·559	·629	·611	·599	·769	·609	·746	·678	4·4 N.	4·2 E.	10·4 N.	11·2 W.	6·5 N.	1·3 W.	7·2 N.	2·8 W.	10·5
March ...	0·01	0·20	0·20	0·3	1·4	·692	·787	·723	·715	·827	·548	·782	·718	3·3 N.	2·6 E.	9·3 N.	13·5 W.	5·2 N.	4·1 W.	6·0 N.	5·2 W.	11·0
April ...	0·05	1·57	1·04	0·4	1·7	·796	·886	·825	·817	·841	·670	·806	·740	1·4 N.	0·7 E.	8·0 N.	14·7 W.	4·6 N.	5·7 W.	4·3 N.	6·5 W.	10·9
May ...	0·62	7·79	3·52	1·8	3·1	·856	·889	·880	874	·821	·670	·800	·737	0·2 S.	2·5 W.	2·5 N.	13·9 W.	0·6 N.	6·7 W.	0·9 N.	7·6 W.	10·7
June ...	10·01	43·45	16·10	21·0	7·3	·895	·934	·910	·918	·869	·781	·851	·820	5·7 S.	5·8 W.	6·3 S.	12·2 W.	6·9 S.	7·3 W.	6·3 S.	8·4 W.	15·4
July ...	24·25	50·99	8·10	28·0	9·0	·876	·911	·866	·890	·895	·841	·885	·867	5·1 S.	16·0 W.	4·6 S.	17·0 W.	6·1 S.	15·8 W.	5·2 S.	16·5 W.	18·8
August ...	13·05	36·58	11·80	26·3	8·6	·846	·888	·853	·860	·895	·829	·878	·858	2·7 S.	12·8 W.	1·4 S.	15·4 W.	2·9 S.	12·9 W.	2·6 S.	13·8 W.	15·8
September ...	10·51	31·51	9·23	19·2	7·0	·838	·875	·845	·853	·765	·603	·873	·847	1·1 S.	5·3 W.	2·5 N.	11·9 W.	0·0	5·9 W.	0·3 N.	7·1 W.	19·9
October ...	2·02	10·40	4·27	4·7	3·4	·798	·850	·830	·829	·873	·706	·942	·783	1·5 S.	6·2 E.	5·5 N.	8·7 W.	2·7 N.	0·9 E.	2·9 N.	0·2 W.	9·3
November ...	0·48	5·83	2·48	1·2	1·7	·663	·693	·711	·698	·792	·587	·772	·692	3·9 N.	8·9 E.	7·0 N.	8·6 W.	5·2 N.	1·1 E.	5·9 N.	1·2 E.	9·7
December ...	0·06	1·14	0·95	0·3	1·8	·575	·607	·622	·614	·763	·554	·747	·668	4·7 N.	9·2 E.	7·3 N.	8·4 W.	6·1 N.	0·9 E.	6·1 N.	1·3 E.	9·8
Year ...	71·15	114·83	16·10	103·9	8·9	0·745	0·786	0·774	0·770	0·834	0·690	0·811	0·757	0·8 N.	0·2 W.	4·1 N.	12·1 W.	1·8 N.	4·8 W.	2·1 N.	5·5 W.	11·9

APPENDIX III.

TABLE III.

Table of Rainfall by Weeks from 1st of June.

	Weeks.	1906.	1907.	1908.	1909.	1910.
June	1	1.43	0.37	...	2.43	1.61
	2	4.44	1.32	1.64	3.88	1.22
	3	2.51	18.02	5.33	0.59	0.94
	4	5.32	2.73	3.83	7.45	18.67
July	5	1.33	14.23	12.93	4.20	2.80
	6	1.83	0.35	4.80	13.59	0.84
	7	5.26	14.18	3.00	7.24	0.06
	8	9.47	22.74	1.06	1.80	0.89
August	9	0.79	8.10	4.25	7.40	5.37
	10	1.37	12.8	2.94	1.09	3.32
	11	0.90	11.67	2.58	0.04	3.38
	12	5.22	1.47	2.89	1.10	2.04
September	13	13.17	0.96	0.85	2.48	1.81
	14	0.98	0.73	1.10	4.86	1.30
	15	1.22	1.23	0.42	3.80	0.11
	16	0.08	0.07	2.15	0.61	3.56
October	17	1.71	0.05	3.13	7.70	2.36
	18	0.12	0.92	...	0.28	11.98
	19	...	0.02	...	...	...
	20	...	...	0.01	...	...
November	21	...	...	0.25	...	...
	22	...	...	0.36	...	0.45
	23	...	...	...	...	0.03
	24	...	...	...	...	0.11

APPENDIX III.

TABLE IV.

Number of days in each week from 1st of June in which rainfall was $\frac{1}{4}$ inch or more.

			1906.	1907.	1908.	1909.	1910.
Weeks.			Number of days with $\frac{1}{4}$ inch or more rainfall.	Number of days with $\frac{1}{4}$ inch or more rainfall.	Number of days with $\frac{1}{4}$ inch or more rainfall.	Number of days with $\frac{1}{4}$ inch or more rainfall.	Number of days with $\frac{1}{4}$ inch or more rainfall.
June	...	1	1	...	...	2	2
	...	2	3	1	2	3	1
	...	3	3	4	4	...	2
	...	4	4	3	2	3	5
	...	5	3	2	6	4	5
July	...	6	2	...	4	6	1
	...	7	6	3	4	4	...
	...	8	7	6	2	4	2
	...	9	1	4	6	7	3
August	...	10	3	1	6	1	6
	...	11	1	7	2	...	5
	...	12	3	3	4	2	1
	...	13	5	1	1	3	2
	...	14	1	...	1	4	1
September	...	15	2	2	...	3	...
	...	16	...	...	3	...	3
	...	17	1	...	3	6	2
	...	18	...	1	...	...	3
October	...	19	...	...	...	...	...
	...	20	...	...	...	...	...
	...	21	...	...	1	...	...
	...	22	...	...	1	...	1
November	...	23	...	...	...	...	...
	...	24	...	...	...	...	...

APPENDIX III.

TABLE V.

Maximum and Minimum Temperature in Bombay—Weekly Averages.

Weeks.	1906.		1907.		1908.		1909.		1910.	
	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.
1	82.3	64.5	87.8	72.2	85.3	68.6	82.0	68.1	84.6	68.8
2	80.6	64.4	84.0	70.0	80.3	67.2	79.8	65.9	82.5	68.4
3	85.9	70.5	86.2	69.3	83.7	69.1	79.5	67.0	81.7	64.3
4	80.1	66.1	83.9	68.4	83.7	68.5	80.7	65.5	84.2	65.8
5	82.0	66.8	81.8	68.3	80.7	67.0	79.2	64.3	87.3	70.7
6	80.7	65.6	82.7	69.6	84.8	66.7	81.8	66.7	87.7	70.3
7	80.4	67.5	84.3	70.0	83.9	69.0	83.0	68.8	84.6	68.0
8	81.8	67.6	83.5	68.9	84.9	68.9	83.5	69.6	85.9	68.1
9	85.5	68.4	87.5	73.2	83.6	68.5	86.1	71.3	84.7	68.3
10	83.9	71.4	85.6	73.0	84.3	69.9	85.7	71.5	85.0	69.6
11	82.7	70.7	85.7	73.0	83.9	69.1	86.2	73.3	89.4	73.3
12	83.6	71.3	86.6	74.3	84.7	72.6	86.8	73.6	88.7	74.9
13	86.4	73.5	88.3	76.3	87.0	75.2	89.2	74.9	90.1	76.6
14	87.0	74.2	90.9	77.7	88.7	76.4	88.0	75.1	89.3	77.0
15	87.0	74.8	89.9	78.3	88.5	76.5	88.2	75.8	90.7	76.8
16	87.2	76.0	87.3	79.5	91.4	78.6	88.6	75.1	89.7	76.7
17	89.3	77.2	89.4	78.8	87.0	77.5	89.9	78.3	91.1	78.0
18	90.2	78.4	90.2	78.8	89.9	78.9	91.7	80.2	89.8	78.1
19	90.9	80.6	90.3	78.2	89.9	80.1	90.8	81.5	90.5	79.1
20	91.6	81.1	91.3	80.5	91.1	80.1	92.0	81.7	91.0	80.9
21	92.3	81.8	91.8	81.1	90.1	80.1	92.9	82.3	92.2	81.5
22	92.5	82.9	92.5	81.5	92.2	83.0	94.1	83.2	92.6	81.4
23	91.9	80.4	91.6	81.4	92.2	82.7	90.2	79.4	86.7	79.3
24	87.2	77.6	89.7	78.6	90.0	80.4	87.7	81.1	87.7	80.0
25	80.3	77.2	85.6	78.7	87.0	79.6	87.1	79.9	86.9	78.9
26	86.9	79.8	86.5	80.0	87.7	80.0	85.2	77.4	84.7	78.4
27	86.2	78.8	85.9	78.0	82.5	77.3	84.8	77.5	84.0	78.7
28	85.0	78.5	88.4	80.5	83.5	77.6	81.5	76.3	86.3	79.3
29	82.6	76.5	84.0	76.8	84.8	78.5	83.9	77.2	87.5	79.6
30	82.9	77.5	82.0	76.0	84.3	78.1	84.6	64.7	85.4	78.0
31	85.5	78.8	83.8	76.0	82.1	76.6	81.0	75.7	83.1	77.0
32	85.3	78.1	82.4	76.6	83.7	76.9	85.9	77.7	82.4	76.2
33	86.4	78.6	81.6	86.3	83.6	76.6	86.7	77.9	89.8	77.7
34	83.7	76.6	83.2	77.2	83.2	76.6	84.2	76.5	84.9	77.7
35	82.8	77.2	84.1	76.4	83.0	77.0	85.6	77.3	84.5	77.2
36	84.8	77.4	85.2	76.2	83.7	76.8	83.9	76.8	85.7	77.7
37	85.0	77.0	85.0	77.0	84.8	76.3	85.7	76.3	84.2	77.0
38	85.1	77.1	87.5	76.2	86.3	77.6	83.7	75.5	81.2	74.6
39	85.5	77.2	87.0	77.8	87.9	78.5	81.5	75.2	85.1	76.8
40	86.8	76.9	88.1	78.9	88.1	77.6	86.3	77.1	84.3	77.7
41	89.2	77.5	88.7	77.5	87.5	76.5	88.2	76.9	86.8	76.5
42	89.5	76.5	88.4	77.1	88.8	76.6	90.1	75.5	87.3	74.3
43	90.8	75.6	87.8	76.8	89.0	78.4	87.6	73.2	88.3	74.3
44	88.0	76.1	90.9	75.7	87.4	73.3	87.5	75.7	88.6	75.3
45	88.8	75.4	90.5	76.1	87.0	74.4	89.2	73.9	85.9	74.2
46	89.9	75.1	88.6	73.7	85.4	72.2	87.8	71.8	85.3	71.1
47	90.4	76.3	88.7	75.4	85.1	69.5	86.5	71.2	85.2	70.1
48	88.7	72.6	88.2	74.4	85.8	69.2	86.6	71.5	85.7	68.3
49	88.2	71.8	85.0	68.9	84.8	68.3	83.9	69.7	86.0	69.9
50	87.5	71.1	86.8	69.8	84.3	68.7	82.5	69.8	85.1	69.3
51	88.9	70.6	85.7	69.7	83.8	67.4	83.3	69.9	82.6	67.7
52	86.3	71.3	89.1	69.2	82.6	67.7	84.2	70.0	83.0	68.8

APPENDIX III.

TABLE VI.

Relative Humidity in Bombay—Weekly Averages.

Weeks.	1906.	1907.	1908.	1909.	1910.
1 ...	73	75	70	66	69
2 ...	67	74	71	79	83
3 ...	69	71	74	81	72
4 ...	76	78	74	74	69
5 ...	72	78	74	71	64
6 ...	75	79	62	78	67
7 ...	79	76	78	86	69
8 ...	72	69	58	80	67
9 ...	59	61	71	62	68
10 ...	74	78	57	65	68
11 ...	81	77	68	77	65
12 ...	81	73	81	76	70
13 ...	77	71	80	75	79
14 ...	75	75	75	81	77
15 ...	76	74	62	75	68
16 ...	81	73	78	72	74
17 ...	73	69	78	76	75
18 ...	80	70	76	78	74
19 ...	78	73	73	72	78
20 ...	71	74	72	74	80
21 ...	72	71	73	75	73
22 ...	71	73	71	74	75
23 ...	78	73	72	83	86
24 ...	86	82	84	82	82
25 ...	90	85	84	83	53
26 ...	83	86	83	88	88
27 ...	87	85	87	88	83
28 ...	87	84	88	90	80
29 ...	93	92	85	88	79
30 ...	88	89	86	87	89
31 ...	85	86	88	90	90
32 ...	85	88	88	84	88
33 ...	85	74	87	84	87
34 ...	93	67	87	91	88
35 ...	86	82	87	90	91
36 ...	84	83	89	92	82
37 ...	84	84	89	85	89
38 ...	89	83	92	92	92
39 ...	85	89	89	92	93
40 ...	84	89	86	84	88
41 ...	81	82	87	86	86
42 ...	80	83	82	80	84
43 ...	66	83	79	82	73
44 ...	79	74	90	86	78
45 ...	77	72	79	75	75
46 ...	74	69	72	76	74
47 ...	68	73	70	75	58
48 ...	66	65	68	65	71
49 ...	66	70	67	74	76
50 ...	71	58	70	81	76
51 ...	75	62	74	88	78
52 ...	68	70	64	82	80

APPENDIX IV.

TABLE 1.

Area, Houses and Population (1906 Census).

Section.	Area in acres.	Houses.		Total Population.	Density per acre.	Number of occupied houses in 100 acres.	
		Occupied.	Unoccupied.				
A. Ward ...	Upper Colaba ..	144.19	38	6	3,775	26	26
	Lower Colaba ...	283.92	450	220	15,310	54	151
	Fort, South ..	131.70	233	106	3,994	30	176
	Fort, North ..	134.30	1,020	210	28,778	214	759
	Esplanade ...	663.77	598	135	11,015	16	90
B. Ward ...	Chakla ...	51.58	812	165	29,362	569	1,574
	Mandvi ...	164.66	915	342	38,158	232	555
	Umarkhadi ...	105.33	1,041	162	53,610	509	988
	Dongri ...	285.47	535	279	32,663	114	187
C. Ward ...	Market ...	89.11	902	191	35,305	396	1,012
	Dhobi Talao ..	99.69	1,126	193	36,594	367	1,129
	Phanaswadi ...	125.23	802	135	29,240	233	640
	Bhuleshwar ...	75.79	1,123	206	38,129	503	1,481
	Kumbharwada ...	46.06	642	96	32,784	712	1,393
	Khara Talao ...	41.64	575	105	26,935	647	1,380
D. Ward ...	Khetwadi ...	170.30	1,255	321	33,579	197	736
	Girgaum ...	124.60	1,027	206	28,449	223	824
	Chaupati ...	111.77	775	306	13,033	117	693
	Walkeshwar ..	545.43	1,354	495	12,685	23	248
	Mahalakshmi ...	642.01	1,684	618	24,650	38	262
E. Ward ...	Tardeo ...	228.68	593	275	28,193	123	259
	Kamatipura ...	66.14	1,030	238	36,484	552	1,557
	1st Nagpada ...	29.60	67	39	3,335	113	226
	2nd Nagpada ...	34.00	486	58	22,016	647	1,429
	Byculla ...	511.52	1,621	501	76,280	149	316
	Tarwadi ...	479.68	1,057	565	26,278	55	220
	Mazagaon ...	638.59	1,216	435	30,872	48	190
F. Ward ...	Parel ...	552.45	1,182	552	46,960	85	213
	Sewri ...	445.72	176	261	15,985	36	218
	Sion. ...	4,261.08	2,400	969	30,515	7	56
G. Ward...	Mahim ...	1,236.23	2,677	849	31,178	24	208
	Worlee ...	1,815.64	3,057	1,294	69,488	38	169
Harbour and Docks, Railways and Homeless.	.....	...	...	32,440	...	...
Total ..	14,385.591	33,267	10,533	977,822	68	231	

APPENDIX V.

TABLE I.

Statement showing the number of deaths from various causes between 1848 and 1909..

Year.	Population.	Deaths from Cholera.	Other bowel complaints.	Deaths from Fever.	Small-pox.	Other diseases.	Total number of deaths.	Ratio per 1000.	
1848	566,119	69	1,090	4,859	839	3,194	10,051	17.75	
1849		2,128	1,356	5,566	343	3,435	12,828	22.65	
1850		2,997	1,245	5,555	1,308*	4,032	15,137	26.73	
1851		5,485	1,321	4,808	510	3,826	15,950	28.17	
1852		1,520	1,425	5,913	1,003*	4,161	14,022	24.76	
1853		1,148	1,471	6,219	677	4,132	13,647	24.10	
1854		3,507	1,763	8,219	232	3,820	17,541	30.98	
1855		1,645	1,567	6,922	1,088*	3,640	14,826	26.25	
1856		1,816	1,621	7,281	179	3,834	14,761	26.07	
1857		2,181	1,785	7,857	346	5,707	17,826	31.48	
1858		115	1,259	7,508	1,714*	3,745	14,342	25.33	
1859		1,985	1,170	7,016	374	3,704	14,249	25.16	
1860		1,961	1,179	6,226	166	4,877	14,403	25.45	
1861		641	1,589	6,847	1,627*	4,310	15,014	26.52	
1862		3,170	1,467	6,979	163	4,030	15,809	27.92	
1863	2,209	1,643	9,078	1,059*	4,707	18,696	33.02		
1864	783,980	4,847	1,503	12,593	1,707*	4,365	25,015	31.90	
1865		2,887	1,581	18,767	567	4,729	28,531	36.39	
1866		332	1,184	9,870	1,079*	4,400	16,865	21.51	
1867		111	1,631	5,674	1,055*	7,029	15,500	19.77	
1868		227	1,645	5,481	1,123*	7,226	15,702	20.02	
1869		754	1,697	5,108	1,725*	8,429	17,713	22.59	
1870		386	1,285	4,745	556	7,914	14,888	18.99	
1871		263	1,346	6,341	919	7,195	16,064	20.49	
1872		190	1,670	7,512	1,854*	7,464	18,990	29.46	
1873		95	1,611	6,156	714	7,089	15,665	24.30	
1874		20	1,648	5,403	261	8,164	15,496	24.04	
1875		847	2,265	5,244	248	10,130	18,734	29.71	
1876		644,405	378	1,979	5,867	3,174*	9,385	20,773	32.25
1877			2,550	3,847	12,832	958*	13,324	33,511	52.00
1878			1,183	3,078	9,944	357	12,437	26,999	41.89
1879	324		2,494	8,445	479	10,785	22,527	34.95	
1880	30		1,728	7,513	207	11,668	21,146	32.81	
1881	546		2,062	6,437	35	12,776	21,856	27.26	
1882	192		1,618	5,453	92	13,113	20,468	26.47	
1883	1,027		1,806	5,903	1,461*	13,333	23,530	30.43	
1884	576		1,716	6,530	112	13,608	22,542	29.15	
1885	773,196		598	1,545	6,648	55	13,004	21,850	28.25
1886			16	1,516	5,820	19	12,703	20,074	25.96
1887			269	1,640	5,612	108	12,884	20,513	26.53
1888			379	1,716	6,642	482	13,202	22,421	28.99
1889			462	1,724	7,266	304	13,622	23,378	30.23
1890			102	1,412	6,489	150	12,331	20,534	26.55
1891		164	1,501	6,837	108	15,237	23,847	29.01	
1892		169	1,823	7,751	541	16,234	26,518	32.26	
1893		147	1,698	5,844	201	15,252	23,142	28.16	
1894		426	2,344	6,458	531	16,571	27,330	33.25	
1895		90	1,813	6,404	270	16,504	25,081	30.52	
1896		490	2,350	8,776	701	21,134	33,451	40.71	
1897		1,265	3,551	6,951	57	36,072	47,896	58.28	
1898		104	3,385	4,114	55	44,303	51,961	63.23	
1899		111	4,286	5,063	440	46,534	56,434	68.07	
1900	4,273	8,676	7,928	3,018*	55,455	79,350	96.35		
1901	198	3,716	7,921	159	47,501	59,495	76.66		
1902	75	3,269	4,518	288	40,264	48,414	62.38		
1903	776,006	17	3,134	2,333	1,477*	43,552	50,513	65.09	
1904		219	2,784	2,416	568	36,689	42,676	54.99	
1905		26	3,391	2,878	2,161*	39,306	47,762	61.54	
1906		1,241	4,778	4,882	276	41,697	52,874	53.97	
1907		439	3,489	3,633	86	31,040	38,687	39.56	
1908		95	3,184	3,403	1,026*	30,563	38,271	39.13	
1909		727	2,585	2,800	473	28,293	34,878	35.66	

* These were epidemic years.

APPENDIX VI.

TABLE I.

Municipal Dispensaries at Colaba, Upper and Middle, Colaba Section, A. Ward.

Monthly admissions.				1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	612	573	607	722	580	629	421	445
	...	Fever	...	166	225	187	204	203	218	142	187
February	...	Total	...	504	473	476	575	466	481	391	436
	...	Fever	...	115	202	134	183	261	157	112	119
March	...	Total	...	591	501	501	785	527	472	532	842
	...	Fever	...	139	213	125	230	167	153	185	141
April	...	Total	...	543	726	558	842	627	578	603	584
	...	Fever	...	137	271	206	288	224	175	223	181
May	...	Total	...	596	757	582	801	615	524	574	499
	...	Fever	...	124	323	217	277	245	169	277	158
June	...	Total	...	598	568	495	693	617	560	452	419
	...	Fever	...	125	219	157	272	220	209	172	148
July	...	Total	...	718	648	488	1,081	761	570	745	651
	...	Fever	...	244	266	143	654	350	233	307	188
August	...	Total	...	1,023	663	693	1,226	811	680	877	626
	...	Fever	...	386	318	227	664	352	283	449	253
September	...	Total	...	854	612	716	974	881	805	756	548
	...	Fever	...	400	300	319	464	419	364	427	167
October	...	Total	...	699	569	748	899	915	888	766	660
	...	Fever	...	306	242	359	471	430	557	375	256
November	...	Total	...	692	563	642	848	712	609	641	577
	...	Fever	...	297	230	265	390	290	354	281	191
December	...	Total	...	563	476	738	697	676	533	576	548
	...	Fever	...	227	149	270	255	258	257	206	116

APPENDIX VI.

TABLE II.

Municipal Dispensary at Frere Road, Fort Section, A. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	308	452	454	764	772	709	551	548
	...	...	Fever	...	128	212	206	350	379	360	254	212
February	...	...	Total	...	269	429	407	776	638	588	503	483
	...	...	Fever	...	101	205	150	389	268	249	232	215
March	...	...	Total	...	303	467	480	862	712	729	600	529
	...	...	Fever	...	108	210	191	402	356	375	267	205
April	...	...	Total	...	319	465	493	759	688	848	534	507
	...	...	Fever	...	98	197	171	306	329	466	249	238
May	...	...	Total	...	339	473	604	680	808	1,100	609	590
	...	...	Fever	...	108	202	237	259	457	769	321	288
June	...	...	Total	...	365	491	556	700	868	926	710	611
	...	...	Fever	...	125	218	205	277	531	618	418	322
July	...	...	Total	...	444	688	661	900	979	941	771	866
	...	...	Fever	...	167	289	282	397	606	569	408	457
August	...	...	Total	...	524	712	873	1,102	1,255	1,143	902	803
	...	...	Fever	...	249	319	416	555	806	718	479	465
September	...	...	Total	...	488	586	856	899	1,211	1,335	912	771
	...	...	Fever	...	213	236	477	480	759	851	567	373
October	...	...	Total	...	556	664	1,003	958	1,504	1,489	775	875
	...	...	Fever	...	257	364	569	512	992	1,088	420	510
November	...	...	Total	...	558	631	1,011	982	1,074	1,119	666	696
	...	...	Fever	...	268	299	662	571	578	719	355	387
December	Total	...	420	497	916	777	911	739	625	674
	Fever	...	258	233	520	404	523	391	271	342

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TABLE III.

Municipal Dispensary No: 2 at Kolsa Mohla, Chakla Section, B. Ward.

Monthly admissions.				1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	175	443	403	280	270	278	263	362
	...	Fever	...	10	11	14	10	12	24	21	60
February	...	Total	...	140	369	308	314	246	284	254	300
	...	Fever	...	12	10	14	11	10	13	12	38
March	...	Total	...	193	330	304	336	276	354	291	326
	...	Fever	...	9	12	10	12	11	8	14	24
April	...	Total	...	229	366	414	299	243	220	247	302
	...	Fever	...	7	9	8	6	10	15	15	24
May	...	Total	...	235	453	356	316	336	262	295	309
	...	Fever	...	11	8	7	6	7	5	27	16
June	...	Total	...	355	375	315	227	294	233	296	295
	...	Fever	...	10	6	7	4	5	11	31	30
July	...	Total	...	480	587	309	300	338	266	357	450
	...	Fever	...	8	4	5	7	8	19	29	72
August	...	Total	...	599	582	392	404	392	338	459	408
	...	Fever	...	12	10	6	5	9	51	64	67
September	...	Total	...	467	509	384	345	372	418	477	454
	...	Fever	...	14	11	10	17	19	60	127	61
October	...	Total	...	463	535	380	482	378	475	519	357
	...	Fever	...	12	11	9	4	6	59	182	72
November	...	Total	...	480	461	346	367	370	406	430	365
	...	Fever	...	10	13	8	10	10	78	126	43
December	...	Total	...	450	435	309	332	361	296	358	287
	...	Fever	...	14	9	7	11	2	84	61	28

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TABLE IV.

Municipal Dispensary No. 3 at Mázagaon Bridge, Umarkhádi Section, B. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	308	292	1,062	1,036	925	853	705	519
			Fever	...	.....	.....	319	896	310	286	41	55
February	...	...	Total	...	305	281	910	1,111	802	829	710	540
			Fever	...	.....	.....	305	381	298	278	49	47
March	...	...	Total	...	306	276	1,054	1,006	910	849	821	684
			Fever	...	.....	.....	290	371	291	260	74	41
April	...	...	Total	...	262	250	1,072	1,009	919	850	846	772
			Fever	...	.....	.....	271	346	286	243	18	45
May	...	...	Total	...	260	218	1,114	1,008	1,009	765	736	761
			Fever	...	.....	.....	261	311	262	231	28	41
June	...	...	Total	...	242	210	1,003	1,015	887	818	757	667
			Fever	...	.....	.....	259	313	240	224	35	45
July	...	...	Total	...	235	205	976	1,131	852	872	827	1,030
			Fever	...	.....	.....	248	314	241	220	51	63
August	...	...	Total	...	230	201	1,054	1,096	932	836	745	939
			Fever	...	.....	.....	240	310	263	224	92	85
September	...	...	Total	...	263	221	1,130	1,091	1,058	844	923	919
			Fever	...	.....	.....	301	321	274	230	139	56
October	...	...	Total	...	301	231	1,355	1,209	1,100	865	904	1,064
			Fever	...	.....	.....	308	330	301	254	186	135
November	...	...	Total	...	303	253	1,225	1,233	1,068	958	947	1,023
			Fever	311	358	303	271	176	102
December	Total	...	307	271	1,120	995	863	909	887	714
			Fever	314	372	313	295	72	70

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TABLE V.

Municipal Dispensary No. 4 at Cathedral Street, Bhuleshwar Section, C. Ward.

Monthly admissions.				1908.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	34	224	201	188	267	248	258	502
	...	Fever	...	.....	60	66	60	64	11	64	113
February	...	Total	...	35	188	194	213	221	262	307	430
	...	Fever	...	.....	41	33	45	43	15	100	98
March	...	Total	...	41	234	221	243	293	212	323	415
	...	Fever	...	.....	76	59	54	74	9	83	97
April	...	Total	...	32	250	256	265	255	234	287	363
	...	Fever	...	.....	44	51	44	43	12	54	75
May	...	Total	...	20	263	213	235	255	342	269	354
	...	Fever	...	.....	71	38	28	70	13	66	66
June	...	Total	...	31	232	256	262	272	306	279	415
	...	Fever	...	.....	25	45	42	24	24	57	60
July	...	Total	...	23	229	238	260	216	292	347	452
	...	Fever	...	.....	29	49	48	25	17	87	79
August	...	Total	...	36	221	255	295	256	392	210	418
	...	Fever	...	.....	46	54	59	41	37	55	71
September	...	Total	...	24	260	285	267	267	285	284	411
	...	Fever	...	.....	38	63	66	34	39	70	71
October	...	Total	...	28	281	279	239	306	348	335	441
	...	Fever	...	.....	50	53	54	50	60	101	95
November	...	Total	...	35	238	246	289	235	378	399	427
	...	Fever	18	70	65	14	41	123	77
December	...	Total	...	57	202	260	295	219	345	506	366
	...	Fever	11	79	70	8	11	151	58

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TABLE VI.

Municipal Dispensary No. 5 at Grant Road, Kumbhadrada Section, C. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	84	787	746	755	568	669	707	3,331
			Fever	...	.....	94	76	144	111	89	43	84
February	...	...	Total	...	72	612	729	605	507	578	516	3,416
			Fever	...	.....	88	86	126	84	76	39	71
March	...	...	Total	...	120	569	773	799	575	693	730	3,655
			Fever	...	.....	110	70	143	95	105	57	59
April	...	...	Total	...	101	774	696	736	565	708	798	949
			Fever	...	.....	105	53	131	98	83	65	59
May	...	...	Total	...	93	774	793	698	578	659	745	948
			Fever	...	.....	85	66	100	105	96	41	34
June	...	...	Total	...	70	618	703	632	690	623	646	1,026
			Fever	...	.....	65	86	98	118	124	66	71
July	...	...	Total	...	120	831	840	597	735	568	791	1,370
			Fever	...	.....	112	103	92	129	137	55	119
August	...	...	Total	...	134	1,009	1,034	809	961	652	1,035	1,231
			Fever	...	.....	124	137	99	165	141	67	118
September	...	...	Total	...	140	896	1,077	850	909	721	994	1,186
			Fever	...	.....	135	163	109	180	198	51	126
October	...	...	Total	...	215	932	1,023	782	505	730	1,305	1,252
			Fever	...	.....	195	169	118	130	116	95	156
November	...	...	Total	...	124	763	897	758	825	682	987	1,103
			Fever	109	131	147	149	135	88	145
December	Total	...	73	507	831	724	937	753	853	944
			Fever	83	151	156	130	147	79	55

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TABLE VII.

Municipal Dispensary No. 6 at Kándewádi, Girgaum Section, D. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	281	345	364	299	323	441	390	315
			Fever	...	84	91	62	89	81	80	121	60
February	...	...	Total	...	181	248	225	235	259	294	315	296
			Fever	...	66	83	64	84	82	75	109	86
March	...	...	Total	...	167	267	190	278	276	300	295	264
			Fever	...	58	82	56	93	81	97	98	77
April	...	...	Total	...	193	278	232	197	270	299	267	240
			Fever	...	68	74	51	81	98	89	91	66
May	...	...	Total	...	251	353	292	299	342	298	383	201
			Fever	...	66	110	64	77	97	81	119	55
June	...	...	Total	...	294	304	295	311	353	350	362	310
			Fever	...	85	81	72	103	143	126	123	61
July	...	...	Total	...	358	398	381	398	455	408	418	425
			Fever	...	105	111	94	138	154	124	172	89
August	...	...	Total	...	443	412	407	449	478	431	410	352
			Fever	...	148	160	95	147	176	131	138	79
September	...	...	Total	...	445	400	451	446	521	481	376	311
			Fever	...	161	132	105	179	181	149	119	32
October	...	...	Total	...	420	403	423	420	502	432	450	396
			Fever	...	133	120	110	181	182	174	77	62
November	...	...	Total	...	374	371	355	425	461	424	384	343
			Fever	...	130	143	102	193	188	153	104	62
December	Total	...	361	351	332	290	413	372	330	310
			Fever	...	138	103	101	161	138	122	94	63

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TABLE VIII.

Municipal Dispensary No. 7. at Belasis Road, Byculla Section, E. Ward.

Monthly admissions.				1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	185	1,627	1,727	1,195	1,002	798	810	788
		Fever	...	...	227	138	116	43	30	64	39
February	...	Total	...	100	1,597	1,858	1,200	934	601	868	812
		Fever	...	...	206	88	67	50	38	22	22
March	...	Total	...	220	1,485	1,503	1,320	1,007	698	931	873
		Fever	...	...	248	87	130	67	45	33	10
April	...	Total	...	269	1,430	1,339	1,291	912	655	835	801
		Fever	...	...	254	91	125	73	40	15	1
May	...	Total	...	190	1,478	1,430	1,347	938	634	864	901
		Fever	...	...	189	60	117	90	45	32	10
June	...	Total	...	180	1,523	1,291	1,303	922	620	727	752
		Fever	...	...	97	97	54	83	42	12	9
July	...	Total	...	224	1,491	1,222	1,288	1,003	604	903	1,058
		Fever	...	...	136	118	59	85	50	46	15
August	...	Total	...	310	1,298	1,372	1,446	1,247	899	1,142	923
		Fever	...	...	165	171	46	82	62	54	23
September	...	Total	...	263	1,366	1,144	1,445	1,085	1,031	947	878
		Fever	...	...	119	130	57	93	83	41	11
October	...	Total	...	285	1,487	1,295	1,520	1,351	959	1,087	998
		Fever	...	...	160	242	84	105	75	51	17
November	...	Total	...	330	1,508	1,099	1,303	996	1,027	956	914
		Fever	...	...	173	139	86	90	70	91	6
December	...	Total	...	248	1,536	1,145	1,240	921	788	910	672
		Fever	185	171	73	69	45	40	9

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TABLE IX.

Municipal Dispensary No. 8 at Foras Road, Tardeo Section, E. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	867	760	978	827	738	803	681	561
	...	...	Fever	...	105	69	147	150	150	124	115	54
February	...	...	Total	...	662	659	899	764	625	764	679	513
	...	...	Fever	...	107	32	142	146	110	103	108	86
March	...	...	Total	...	712	701	967	1,089	755	795	791	551
	...	...	Fever	...	85	48	158	266	132	66	128	61
April	...	...	Total	...	820	627	1,059	966	743	764	675	543
	...	...	Fever	...	73	42	159	239	160	85	135	65
May	...	...	Total	...	802	682	1,050	898	736	690	687	459
	...	...	Fever	...	69	37	150	181	113	113	110	34
June	...	...	Total	...	845	673	785	770	631	743	696	589
	...	...	Fever	...	101	41	159	158	121	140	111	27
July	...	...	Total	...	948	971	909	825	717	809	787	882
	...	...	Fever	...	93	82	183	138	144	136	139	108
August	...	...	Total	...	1,116	1,092	1,018	1,140	798	826	859	696
	...	...	Fever	...	109	87	201	220	172	144	131	86
September	...	...	Total	...	1,179	1,024	981	971	898	992	726	662
	...	...	Fever	...	123	95	214	191	193	176	129	61
October	...	...	Total	...	1,140	1,052	1,097	933	966	990	821	698
	...	...	Fever	...	159	108	233	205	205	222	179	53
November	...	...	Total	...	1,034	960	868	898	862	896	786	637
	...	...	Fever	...	135	40	195	264	195	168	176	91
December	Total	...	881	843	890	713	929	838	687	581
	Fever	...	119	41	197	143	198	129	99	91

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TABLE X.

Municipal Dispensary No. 9 at Elphinstone Road, Parel Section, F. Ward.

Monthly admissions.					1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	...	Total	...	440	342.	488	462	334	374	286	570
			Fever	...	33	68	51	29	36	64	33	39
February	...	...	Total	...	270	308	345	443	317	290	282	518
			Fever	...	17	20	30	18	18	30	20	55
March	...	...	Total	...	313	357	348	510	360	392	367	574
			Fever	...	26	10	9	9	19	37	26	48
April	...	...	Total	...	322	373	369	448	375	340	394	579
			Fever	...	25	22	13	13	9	44	38	31
May	..	...	Total	...	270	320	400	385	405	407	369	565
			Fever	...	22	21	13	19	19	50	32	46
June	...	...	Total	...	399	329	386	419	340	411	449	578
			Fever	...	28	19	11	8	15	51	28	31
July	...	...	Total	...	592	582	480	521	423	257	613	919
			Fever	...	45	32	17	12	22	29	54	94
August	...	...	Total	...	668	673	605	616	499	336	649	860
			Fever	...	58	32	28	25	22	36	55	73
September	...	...	Total	...	508	511	607	520	511	403	654	804
			Fever	...	47	24	18	20	28	51	67	88
October	...	...	Total	...	519	439	511	418	484	415	868	938
			Fever	...	77	50	20	37	68	102	59	90
November	...	...	Total	...	520	376	460	502	490	448	687	827
			Fever	...	35	16	39	38	66	100	84	102
December	Total	...	447	389	481	420	391	336	621	702
			Fever	...	84	29	40	33	71	76	55	80

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TABLE XI.

Municipal Dispensary No. 10 at DeLisle Road, Worlee Section, G. Ward.

Monthly admissions.				1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	1,539	1,105	1,019	1,204	923	1,192	730	1,092
	...	Fever	...	109	107	137	141	139	129	54	35
February	...	Total	...	1,085	1,127	983	1,060	664	973	786	909
	...	Fever	...	116	114	117	184	117	110	100	46
March	...	Total	...	1,139	1,198	1,065	1,123	860	1,008	883	932
	...	Fever	...	169	171	179	167	187	169	81	44
April	...	Total	...	1,227	976	988	1,128	813	908	896	814
	...	Fever	...	187	189	193	189	179	191	73	42
May	...	Total	...	1,322	668	1,041	1,148	892	861	907	856
	...	Fever	...	199	178	201	199	189	163	47	53
June	...	Total	...	1,422	1,175	1,099	1,141	828	839	925	977
	...	Fever	...	206	194	196	203	187	196	34	42
July	...	Total	...	1,512	1,463	1,336	1,186	797	994	908	723
	...	Fever	...	101	115	113	99	97	85	45	47
August	...	Total	...	1,502	1,475	1,691	1,370	820	1,401	1,238	933
	...	Fever	...	123	119	143	107	111	93	50	50
September	...	Total	...	1,472	1,449	1,765	1,224	1,013	1,070	1,079	998
	...	Fever	...	111	109	117	136	121	119	62	56
October	...	Total	...	1,465	1,653	1,623	1,163	1,042	953	1,037	1,046
	...	Fever	...	139	117	113	131	107	99	97	75
November	...	Total	...	1,266	1,435	1,336	961	1,198	868	750	903
	...	Fever	...	129	99	96	119	139	91	47	68
December	...	Total	...	1,285	1,289	1,154	917	1,146	571	756	778
	...	Fever	...	111	127	109	136	107	89	35	42

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TABLE XII.

Northcote Police Hospital.

Monthly admissions.				1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
January	...	Total	...	161	144	168	140	131	153	110	163	154	144
	...	Fever	...	88	67	76	60	59	74	41	89	98	43
February	...	Total	...	160	184	102	103	132	118	99	125	124	134
	...	Fever	...	85	56	42	47	43	58	21	58	70	42
March	...	Total	...	95	187	138	109	93	124	108	128	133	123
	...	Fever	...	38	59	39	86	21	44	30	48	62	47
April	...	Total	...	143	160	103	112	107	152	125	112	157	125
	...	Fever	...	69	79	56	37	42	67	36	62	81	66
May	...	Total	...	142	155	101	142	114	148	144	184	177	109
	...	Fever	...	74	61	42	49	36	79	43	100	92	52
June	..	Total	...	113	152	103	133	125	133	125	175	231	140
	...	Fever	...	51	59	45	64	45	63	37	118	132	64
July	...	Total	...	164	171	157	177	147	189	168	214	255	247
	...	Fever	...	101	78	86	82	76	85	72	119	144	134
August	...	Total	...	191	156	146	177	186	186	211	241	223	231
	...	Fever	...	128	79	73	81	110	110	80	164	137	103
September	...	Total	...	189	141	142	215	231	175	186	307	328	250
	...	Fever	..	114	73	72	141	154	78	132	230	241	160
October	...	Total	...	190	202	147	182	275	192	237	372	302	293
	...	Fever	...	122	125	70	111	200	98	164	323	211	291
November	...	Total	...	207	174	204	160	207	202	215	273	218	233
	...	Fever	...	149	116	126	107	134	86	143	119	117	145
December	...	Total	...	130	160	159	153	190	129	191	208	186	175
	...	Fever	...	76	101	88	82	114	48	114	99	70	80

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TABLE XIII.

Jaffer Suleman Dispensary.

Monthly admissions.		1905.	1906.	1907.	1908.	1909.	1910.
January	Total	603	659	556	572	618	713
	Fever	37	41	36	46	103	94
February	Total	559	468	396	475	603	685
	Fever	32	40	25	38	60	63
March	Total	611	667	487	571	851	611
	Fever	30	32	19	28	93	83
April	Total	727	608	527	650	694	778
	Fever	36	38	22	30	60	120
May	Total	843	741	624	650	851	696
	Fever	52	58	25	67	38	107
June	Total	679	656	577	692	767	642
	Fever	44	25	37	155	66	121
July	Total	756	665	655	714	848	875
	Fever	42	44	41	98	219	21
August	Total	816	704	671	806	865	779
	Fever	50	34	45	68	181	45
September	Total	797	655	710	700	695	741
	Fever	48	49	48	100	193	31
October	Total	628	700	799	813	848	763
	Fever	16	44	43	157	261	43
November	Total	584	704	662	871	841	764
	Fever	32	42	32	231	244	70
December	Total	653	516	563	659	721	620
	Fever	29	33	35	64	133	55

TABLE XIV.

Port Trust Dispensary.

Monthly admissions.		1906.	1907.	1908.	1909.	1910.
January	Total	329	302	308	352	406
	Fever	83	78	94	131	122
February	Total	336	255	262	349	372
	Fever	86	56	72	133	115
March	Total	362	263	255	403	386
	Fever	114	66	75	152	128
April	Total	328	341	323	396	454
	Fever	75	89	113	155	146
May	Total	359	306	375	409	459
	Fever	70	75	131	157	132
June	Total	328	285	369	400	481
	Fever	64	73	136	137	153
July	Total	377	402	443	554	635
	Fever	83	110	171	234	197
August	Total	431	469	434	600	562
	Fever	88	155	195	275	243
September	Total	421	394	510	516	553
	Fever	90	143	271	254	266
October	Total	444	471	636	550	639
	Fever	126	167	440	263	361
November	Total	429	346	449	488	573
	Fever	164	132	256	200	276
December	Total	291	303	375	409	460
	Fever	262	111	166	146	148