

The Off^{ce} Secretary to
Sanitary Commission
Chicago

Dated 9th April 1888
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468506

No 408.

Forward Report on the
deaths in Leaden
during the 1st quarter
of 1886. —

No 530 dated 23 May 1888.

The proposal made at the conclusion
of this Report is approved.

N. C.

To the Q^{ueen's} ~~Sanitary~~ Commission
London

1. Number of pages.

2. Date of repair.

3. Details of Reference

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MADRAS RECORD OFFICE.

Government of Madras.

Public DEPARTMENT.

G.O. No.

530

Press
Mis.

Dated

23.5.

1866

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Department,
23rd May 1866.

Read the following :—

135. REPORT OF DEATHS IN MADRAS, DURING THE FIRST QUARTER OF 1866.

The health of Madras during the first quarter has been on the whole satisfactory. The total number of deaths registered has been 2960, being a slight decrease of 21·1 on that for the corresponding quarters for 10 past years, and a decrease of 284·6 for the past five years.

2. The striking difference in the comparison of the death of these two periods must be to a great extent attributable to the more accurate way in which the registration of mortality has been latterly carried out—a fact noticed by Mr. Cornish in his Annual Report for 1861; and greater confidence is, therefore, to be placed on the contrasts drawn between the present Returns and those prepared since the year 1861.

3. Taking the population at 450,000, the mortality during the quarter would be at the rate of 26 per mille per annum.

4. Cholera has been far less prevalent during the quarter than it has been for some time past, there having been only 269 deaths from this disease against a mean of 636·6 for the same period for five previous years. During the last two weeks, the number of deaths registered have greatly increased, most of the cases occurring in Triplicane and its neighbourhood.

5. The total mortality from miasmatic disease has been 1542, being 382 deaths less than that for the same period for five years past.

6. The Returns of mortality for 1865, which are now being compiled in the office, will also show a very low rate of mortality from miasmatic diseases as contrasted with five previous years; and from charts of mortality which have been constructed, it may be stated that the wave line of deaths from this cause only reaches the mean wave line at one point embracing a period of four consecutive weeks.

7. It cannot be doubted that much of this decrease is due to many sanitary improvements which have been made in the town of Madras since the date on which these Returns were first compiled, which is an encouragement to further efforts of this kind; for, much still remains to be done. The ground of many parts of the Native towns continues saturated with the contents of cess-pool and leaking drains, while poisonous emanations, which generate Typhus, Diarrhoea, Dysentery, and Cholera still abound. The Cooum river is still an open sewer, and teems with pestiferous exhalations and the germs of disease, and it may be safely said that, should an epidemic visit Madras, it will still find its population an unprepared and easy prey.

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8. The total deaths from different classes of the population during the quarter are as follows:—

Deaths in Madras, First Quarter of 1866.

	Europeans		East Indians.		Hindoos.		Mahomedans.		Total.		General total of both sexes.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
<i>Miasmatic Diseases.</i>											
Small-pox.....	...	...	...	...	15	12	...	1	15	13	28
Measles.....	...	...	...	1	...	...	...	...	...	1	1
Fevers.....	1	...	1	2	236	251	17	33	255	286	541
Dysentery.....	...	3	1	...	163	123	22	25	186	151	337
Diarrhoea.....	1	...	2	7	113	121	12	11	128	139	267
Cholera.....	4	2	7	6	118	113	37	34	166	155	321
Total.....	6	5	11	16	645	620	88	104	750	745	1495
Other Miasmatic diseases.....	1	...	...	...	15	6	2	2	18	8	26
Total of all other diseases.....	29	10	23	28	646	487	111	105	809	630	1439
Total.....	36	15	34	44	1306	1113	201	211	1577	1383	2960
<i>Mean mortality of ten 1st Quarters from 1856 to 1865.</i>											
Miasmatic diseases.....	12.9	4.0	17.1	17.1	731.4	661.4	123.2	137.4	884.6	819.9	1704.5
Other diseases.....	15.6	4.9	17.7	21.4	540.1	481.3	99.2	96.4	672.6	604.0	1276.6
Total.....	28.5	8.9	34.8	38.5	1271.5	1142.7	222.4	233.8	1557.2	1423.9	2981.1
<i>Increase or Decrease.</i>											
Increase.....	13.6	...	4.7	...	4.8	...	...	...	...	...	21.1
Decrease.....	...	...	...	...	...	...	44.2	...	...	...	...

Two Charts accompany this Report; one shewing the increment and decrement in mortality from certain diseases of the miasmatic class, whose origin may perhaps be traced to effects of locality and climate; and the other representing the meteorological condition of Madras for the past quarter—those climatic elements only being exhibited which more probably influence the health of the community. These charts, being constructed in the same form, offer facilities for comparing the mortality with changes of climate, which no figures, however plainly shown, could ever possibly do.

A reference to the mortality chart shows, at a glance, the following facts:—

1st.—Throughout the quarter, with the exception of the two last weeks there has been a marked decrease in the amount of Miasmatic disease, the rise during the two last weeks being due to an increase in the number of cases of cholera.

2nd.—The number of deaths from Fevers, Diarrhoea, and Dysentery has been above the usual average; but a marked rise took place in all at a period extending over the fifth and sixth weeks.

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3rd.—That Small-pox shows a marked decrease on the average number of deaths from this disease for the past five years.

4th.—That, although Madras has never been free from Cholera during the past quarter, yet the mortality from it has been far less than usual for 11 out of the 13 weeks. During the last fortnight a sudden rise has taken place.

1st.—A reference to the Meteorological Chart shows—

That the average atmospheric pressure has been the same as usual, but exhibits a sudden decrease in the 5th and 13th week, the former period corresponding to a change in the wind from N. E. to S. E.

2nd.—That the wind for the 1st, 2nd, 3rd, and 4th weeks has blown from a North-easterly quarter, and after this from a South-easterly one, its velocity being below the usual average for the quarter.

3rd.—That the temperature has been greater than the average during the quarter, more especially during the 6th and 8th weeks.

4th.—That the amount of humidity has been less than the average.

5th.—That the rain fall is below the average.

In contrasting the mortality and meteorological charts, nothing very particular can be traced between the wave line of deaths and climate till the 5th week when certain marked meteorological changes occur, viz., the wind passes from a North-easterly to a South-easterly direction, with a marked decrease in atmospheric pressure, and a sudden ascent in the temperature. At this period a rise takes place in the deaths from Fevers, Diarrhoea and Dysentery, which continues through the following week and falls with a decrease in the temperature.

No connection can be traced between the wave line of Cholera and any meteorological element, but it is worthy of remark that at the time the mortality increased during the fifth week from Fevers, Dysentery and Diarrhoea, a steady decrease took place in the deaths from this disease. The Cholera Commission in Bengal notice that when Cholera is at its minimum, the number of deaths from Dysentery and Diarrhoea amongst Europeans reaches its maximum, and that at these times the deaths from all diseases amongst Natives also reached their maximum.

In pointing out these facts, it should be stated that no conclusions drawn from them can have any decided foundation until comparisons between climate and disease have been extended over a series of years. Up to the present time this subject has been almost entirely neglected in India. In forwarding the report of deaths in Madras for 1865, it is intended to show the wave line of mortality from the same miasmatic diseases for the six past years, as contrasted with meteorological causes, should such a plan meet with the approval of Government.

Comparative table showing the mortality from Miasmatic diseases in the last thirteen weeks, as shown upon the accompanying diagram.

	Jan. 6th.	Jan. 13th.	Jan. 20th.	Jan. 27th.	Feb. 3rd.	Feb. 10th.	Feb. 17th.	Feb. 24th.	Mar. 3rd.	Mar. 10th.	Mar. 17th.	Mar. 24th.	Mar. 31st.	Total.
Fevers.....	46	50	43	35	31	46	52	38	44	46	36	39	45	551
Diarrhoea.....	19	18	23	25	26	43	19	12	17	19	13	19	18	270
Dysentery.....	31	24	22	21	32	30	24	19	30	33	23	25	28	342
Small Pox.....	4	1	2	1	4	2	...	1	2	...	4	3	4	28
Cholera.....	14	18	24	30	25	20	10	19	29	24	15	41	55	324
Other Miasmatic Diseases.....	2	1	2	2	2	2	3	2	3	3	3	...	2	27

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Average of the corresponding weeks for five previous years.

Fevers.....	33.0	41.2	44.2	36.6	42.0	44.6	38.2	39.4	40.2	39.0	38.2	40.2	41.6	525.6
Diarrhoea.....	19.4	21.1	18.4	17.6	18.4	17.4	16.0	16.6	18.4	15.8	15.2	18.4	15.8	228.8
Dysentery.....	25.4	23.2	25.4	24.8	25.0	26.2	20.8	24.0	22.8	23.4	23.2	23.4	21.8	309.8
Small Pox.....	5.8	7.4	10.6	8.4	8.6	16.2	17.8	17.6	15.4	16.8	21.2	22.0	17.8	185.0
Cholera.....	26.6	41.2	61.0	63.0	53.6	56.8	63.0	59.6	51.0	50.6	51.6	20.2	32.4	626.6
Other Miasmatic Diseases.....	3.2	2.2	1.6	2.6	2.0	3.0	3.0	2.2	3.6	3.4	3.2	3.4	4.4	38.2

Mean meteorological observations for the past thirteen weeks.

Barometer reduced to 32° F.....	29.984	30.010	30.014	30.078	29.917	29.913	29.951	29.951	29.927	29.907	29.95	29.9	29.81	29.963
Mean Maximum Temperature.....	81.4	80.6	81.4	81.4	83.9	87.01	85.02	84.01	85.04	87.8	88.8	90.3	90.6	85.17
Do. Minimum do.....	70.7	68.6	67.3	67.02	69.7	73.10	73.20	69.80	67.7	71.3	71.3	75.4	76.0	70.85
Mean Temperature.....	75.9	75.6	73.9	74.5	77.1	79.6	79.5	77.2	76.4	79.7	79.9	82.1	83.2	78.01
Do. Humidity.....	71.2	68.4	76.8	75.1	78.7	76.7	73.2	68.2	73.0	73.7	76.8	77.0	79.3	74.23
Prevailing Wind.....	N. E.	N. E.	N. E.	E. N. E.	S. E.	S. E.	S. E.	E. by S.	S. E.	S. S. E.	S. E.	S. by E.	S. S. E.	
Mean Velocity in miles.....	17.41	152.4	110.1	117.5	131.0	136.7	125.1	98.5	112.2	112.2	112.2	112.2	112.2	112.2
Rain fall.....	...	...	...	...	...	0.93	...	...	...	...	...	...	...	0.912

(Signed) W. A. SMITH, M. D.,

MADRAS, 9th April 1866.
 Offg. Secretary, Sanitary Commission.

No. 136.
 ORDER THEREON, 23rd May 1866, No. 530.

The proposal made at the conclusion of this Report is approved.

(True Extract).

Chief Secretary.

To the Sanitary Commissioner

Exd. J. H. Burns.

Dated 9th } April 1880
Recd 11th }

1880

No 408.

Towards Report on the
death in London
during the 1st quarter
of 1886.

No 530 dated 23 May 1888.

The proposal made at the conclusion
of this Report is approved.

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