

1-6-16

L. & M.
5,000-19-11-00.

INDEXED.

Local & Munl. (1897) Department.

MISCELLANEOUS.

G.O., No. 82m

DATED 25-1-97

DESPATCHED

[Despatch Abstract.]

Sanitation

Copy to the Munl. Council of
Madras with remarks, Recommendation of
the Army Sanitary Commission on the
Administration Report of the Munl. Council
for 1894-95.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

[5]
800-27-5-95.

LOCAL AND MUNICIPAL DEPARTMENT.

Papers to be read in Proceedings:—

Again G.O., dated

189 , No.

Current No. of 189 , dated

from the

Current No. 3259 of 1896 , dated 12 - 11 - 96. from the Secretary of State for India, Lon.

Order. No. 82 Madras d/ 25-1-97.

Communicated to the Municipal Commissioners of Madras.

2. The President is requested to state whether any explanation can be given for the difference between the proportion of still-births to every hundred children born alive in Madras (10.21) during 1894. He should also see that

Vaccination Statistics 3 For the future should be supplied in the form of Standard Statement No. I, prescribed by the Government of India.

4. The statement in para. 19 of the review of the Government on the administration report, that

there were but few unprotected children in the city to which exception is taken by the Army Sanitary Commission appears to have been based on the assumption

Kesh^d also state on what evidence he was assured that only 3 births & 5 deaths were left unreg^d during the year under review.

assumption that the number of
children who having been registered
born in Madras, left the town
the vaccination ^{or might fairly be taken} would be at least
equal to ^{the number} of children born
the Mufassal but vaccinated in

Madras. The President is requested
to state whether this ^{figure may be accepted as} is ~~is~~ well founded. He will also

CR
1/1/97

S.R. 22/1/97

~~5 The San. Comm. will be~~
~~expected to be paid enough to~~
~~offer any report on the observations~~
~~in the Memorandum, calling~~
~~on the accuracy of~~
~~in question the high percentage~~
~~of successful vaccinations.~~

Isuffice the
with subject in
death
Sept 10

Please see also letter to the President
should not this be sent to the President?
Not till we get a reply. This is
an informal reference.

To.

The President M.C. Comm.
" Sanitary Board
" Sanitary Comm.
Madras
Sept 26/1/97

[L. & M.]
500-15-8-96

Local & Munl. (189) Department.

CURRENT No. 3259m

Order

From
The Secretary of State for
India, London.

Statistics No. 1

Dated 12. 11. 96.

Received 5. 12. 96

Registered 5. 12. 96

Enclosures

Spare copies 70

SUBJECT.

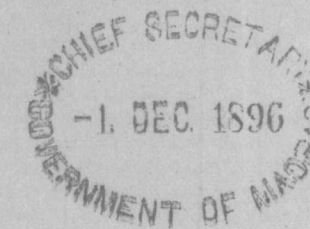
Forwarding 70 copies of a
memorandum by the Army
Sanitary Commission on the
Administration Report of the
Municipal Commissioners of
Madras for 1894-96.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.



India Office,
London, 12th November 1896.

Statistics,
No. 1.

To His Excellency The Honourable The Governor in
Council, Fort St. George.

SIR,

I forward, for the information of your
Excellency's Government, 70 copies* of a
Memorandum by the Army Sanitary Commission
on the Administration Report of the Municipal
Commissioners of Madras for 1894-95.

*By Book Post.** 12 by mail; 58 by book post.

I have the honour to be,

Sir,

Your most obedient humble Servant,

George Hamilton

*2.1/11.
30.11.96
To be sent in usual course
DO*

ENCLOSURE.

MEMORANDUM by the Army Sanitary Commission on the Administration Report of the Madras Municipality for 1894-95.

1. As estimated by the mortality, the year 1894 was, for Madras, a comparatively healthy one. The deaths were fewer by 2,038 than in 1893. This diminution is attributed chiefly to the favourable meteorological conditions of the season, but partly, also, to a lower birth-rate, and partly to lower prices of food. The rainfall was 1.24 inches below the average. The heaviest fall was in August, when 13.24 inches were registered. This is nearly three times the average for this month, which is usually characterized by light showers, sufficient to moisten the soil, but not to flush the town and carry away offensive matters. It is largely attributable to this, writes the President, that the mortality in the third quarter was less by more than a thousand than in the previous year, and nearly eight hundred below the average. The temperature of the year was above the average, but below it in August, September, and November. The fact that bowel complaints were much less prevalent than usual in the third quarter may partly be attributed to this. The same effect is seen to follow a cool autumn in England. Food was appreciably cheaper. In previous years, the price of food has been shown to have considerable influence upon death-rates in Madras; and the President concludes that the fall in prices conduced materially to the lowering of the death-rate.

2. *Vital Statistics.*—The births registered during 1894 numbered 17,062, and were 1,159 fewer than those registered in 1893. The ratio per thousand of inhabitants was 37.7, as compared with 40.2 in the preceding year; but this ratio is still above the mean of the ten years from 1885, and was only exceeded in three of those years. The decrease in the rate, as compared with 1893, is not attributed to diminished activity in registration, but to some general influence, such as long-continued high prices, acting indirectly on the fecundity of the people by diminishing the number of marriages. The still-births numbered 541, or in the proportion of 3.4 to every 100 children born alive. In the city of Bombay this proportion was 10.21. The difference is striking and needs explanation. During the year, writes the President, 3 births and 5 deaths were left unregistered, against 1 and 5 in the previous year. He adds that the registration of deaths works satisfactorily, whilst that of births is not so satisfactory. From the numbers left unregistered, an opposite conclusion might be arrived at; but both births and deaths seem to be registered with an accuracy attained in no other city in India, if it be a fact that only 3 of the former and 5 of the latter failed to be registered during the year.

3. The registered number of deaths during 1894 was 16,542, giving a ratio per thousand of the inhabitants, of 36.35, as compared with a ratio during 1893 of 41.0; and with an average for the previous ten years of 39.5. According to sex, the death-rate per thousand of males was considerably lower than of females. This was especially marked amongst Europeans, East Indians, and Native Christians. Amongst Christians generally, the annual ratio of deaths per thousand was only 29.9, as compared with 37.1 for Hindus, and 37.6 for Mahomedans. In spite of the testimony given to the accuracy of the registration, we have some hesitation in accepting the conclusion that, in a comparatively healthy year, the number of live births exceeded the number of deaths by only 520, in a population approximating to half a million. We must not, however, overlook the circumstance of the very high death-rate which is an annually recurring feature of the returns for Madras. During this same year, the death-rate of Calcutta was 32.9. Although this rate was, for Calcutta, an unusually high one, it was 3.4 below the Madras rate, which was an exceptionally low one. In Bombay, also, the

year was a sickly one; yet the ratio of deaths per thousand of inhabitants, 33·25, was considerably below the ratio which prevailed in Madras during a season of low mortality.

Chief diseases.—Under the head of *Fevers* are recorded 6,128 deaths. This number, although smaller than the number for 1893, when it was 6,628, was yet greatly higher than the average for the previous ten years which was 4,767·1. The decrease, as compared with the year immediately preceding, is attributed to 1894 having been healthier and food cheaper. "For six years," writes the President, "the mortality from fevers has risen and fallen with the price of food, and there can be little doubt that within certain limits the one exercises an influence on the other, though cheap food by itself cannot be expected to reduce the fever-rate to the normal of a healthy town until adequate provision is made for drainage, the disposal of refuse, and other sanitary requirements." The incidence of the disease varied according to the sanitary conditions of the different localities. As might be expected, the mortality from fever was much less in the rural and suburban areas where aggregation is less and there are plenty of trees to dry the ground, than in the crowded area of Black Town where the want of adequate drainage is much more felt.

Dysentery and diarrhoea were less fatal than during the preceding year, and the death-rate due to them far below the average of the previous ten years. The deaths from these diseases fell from 2,708 in 1893 to 2,392 in the year under report. The average for ten previous years was 3,038·2. The decrease was probably due in part to the lower temperature of the months of August, September, and November, to the lower prices of food, and to the smaller number of births.

Cholera was happily in abeyance during the year. Although the disease was epidemic in the Presidency during the first quarter, and cases were from time to time imported into the town, it never showed much tendency to spread, "the seasonal conditions being presumably unfavourable." Only 77 deaths are attributed to cholera, as against 27 in 1893, and an average for the ten previous years of 593·4. The comparative immunity of these two years affords, unfortunately, no guarantee of a continuance of such immunity, so long as the sanitary defects of the town, especially of its drainage and water-supply, continue.

Small-pox and vaccination may be taken together, and in the case of the city of Madras the mortality from the former would seem to be a fair reflex of the efficiency with which the latter is carried out. The deaths from small-pox numbered 12. Only in 1886, when but a single death from small-pox occurred, has the mortality from this disease been so small. The total number of cases vaccinated during the season 1894-95 was 24,725, and of these 23,309, or 97·94, were successful. It is satisfactory to find that no fewer than 13,414 of the total number vaccinated were children under one year of age. Of these, 13,230 were successfully vaccinated. The total number of registered births in the vaccination season 1894-95 was 17,503. Deducting from this number 530 still-births, and 3,624 children who died under six months, the age of compulsory vaccination, there remained available for vaccination 13,349. More than this last number, or 13,414, were operated on, and 13,230 of them successfully. If all operated upon had been born in Madras, the children of this city might be regarded as thoroughly protected against small-pox. But of the 13,414 operated upon, only 9,597 were born in Madras itself, the remaining 3,817 having been born up-country. Viewed in this light, the results as regards protection of children under one year of age do not wear so favourable an aspect. Instead of finding that the 13,349 children available for vaccination were all vaccinated, this number becomes reduced to 9,597. It is explained that "some of the 3,817 were born up-country, where their

*I sh^d say the climate in-
fluences w^h.
affect the crop
& the price of food
also influence
the fever rate?*

8/24/97

"mothers went to be confined, and subsequently brought to Madras, the parents being permanent residents. In other cases, children born of *Mofassil* parents were brought to Madras and vaccinated after residing in the city for two months, under bye-law 8." The Secretary to the Government of Madras would appear to draw a more favourable conclusion from these figures than that arrived at by us. He writes in paragraph 19 of his review of the Administration Report:—"The actual number of births registered during the year (1894-95) was 16,973 excluding still-births; out of these 3,624 children died before they reached the age of six months, while 3,817 of the infants vaccinated are reported to have been born out of Madras. It may therefore be assumed that, supposing these figures to be correct, there were but few unprotected children in the city." The table given in paragraph 148 of the Report makes it clear that, although a total of 13,414 children under one year of age were vaccinated, only 9,597 of these were born and registered in Madras; whilst the number actually born and registered in that city—after deducting still-births and deaths of children under six months of age—was 13,349. Consequently, of the children under one year of age available for vaccination, who were born in Madras, the difference between 9,597 and 13,349, or 3,752, remained unvaccinated. In other words, so far from there being "but few unprotected children in the city," more than a fourth of the children registered as born in Madras, and available for vaccination, were not vaccinated.

On further examination of the returns of vaccination, it is seen that, although there was a total of 24,725 persons vaccinated, this number includes 4,227 cases of re-vaccination; so that there were in reality only 19,082 persons primarily vaccinated. Deducting from this latter number the unsuccessful and unknown cases, the exact number of primary successful vaccinations becomes reduced to 18,753. Of the 4,227 cases of re-vaccination, no fewer than 91·0 per cent. are recorded as having been successful. Nothing approaching to this percentage is probably, or, perhaps we might add, fortunately, to be found in any other province of India. In the Presidency of Bombay the percentage of success in cases of re-vaccination was 58·10, and in the North-Western Provinces, 63·22.

Of the 24,725 cases of vaccination, 15,695 were verified by the supervising staff. During the year, 1,184 summonses were taken out against parents and guardians for failing to obtain the vaccination of children after the service of notices. Vaccination was effected in 870 of the cases prosecuted. In the majority of the remaining cases, the children had left the town, or their vaccination was postponed on account of illness. This shows that the provisions of the Compulsory Vaccination Act are not permitted to become a dead letter in Madras.

It would save much trouble and permit of the returns of vaccination for the different provinces or Presidency towns being readily compared with each other, if Standard Statement No. I, showing particulars of vaccination for the year, were everywhere adopted. This suggestion has already been more than once made by us in our memoranda, but has not been carried into effect.

Sanitary defects.—It is evident from the small sums expended during the year in improving the drainage and water-supply of the city, that no substantial progress has been made towards remedying the radical defects in either. Only a sum of Rs. 68,494 was expended on the former, and of Rs. 63,622 on the latter. The drainage scheme proposed by Mr. Cousins may be excellent, but it is very expensive; and the municipal authorities may be excused if they hesitate to undertake a work estimated to cost about 28 lakhs of rupees until after they have become convinced that the effectual drainage of their own cannot be carried out at less expense. Undoubtedly, as the President writes:—"When once the main arteries of a good sewerage system are laid down, the sanitation of the town will be much simplified."

A water-supply scheme has also been proposed by Mr. Cousins; but as this would involve an annual expenditure of four lakhs, it is considered beyond the utmost strain that the municipal finances could bear. It is clear from the description given of the water supplied to the city that this should undergo filtration before distribution; but as it has not a sufficient head to admit of its being conveyed on to the filter beds until first lifted by pumping, and as the cost of pumping would be prohibitive, the difficulty seems to be, for the present, insurmountable.

Other improvements having for their object the more efficient removal of night-soil and refuse, the prevention of intramural burial, the opening up of overcrowded parts of the town, the admission of sea-water into the stagnant and foetid Cooum river, and such like, need not be interrupted because of the delay in arriving at a decision regarding the proposed drainage and water-supply schemes. But until these latter are undertaken and carried out, Madras city will almost certainly continue to enjoy the unenviable reputation of being the unhealthiest of the three Presidency towns. All other improvements are of comparatively minor importance, and their effects, as measured by the death-rate, will probably be inappreciable.

12. In brief:—The year 1894 was, for Madras, a comparatively healthy one. Meteorological conditions and food prices were favourable to the public health. Fewer births were registered than during 1893, a result attributed to general causes operating indirectly on fecundity, and not to defective registration. The death-rate fell from a ratio per thousand of population of 41.0 in 1893 to 36.5; but was still considerably higher than that recorded in the other two Presidency towns, although in these latter the year was an exceptionally unhealthy one. Of the chief diseases, fever was, as usual, credited with the larger share of the deaths. Although it was less fatal than during the preceding year, the mortality caused by it was much in excess of the average for the previous ten years. Until the city of Madras is provided with an efficient drainage and sewerage system, diminution in the annual mortality from fevers need not be looked for. On the contrary, as pollution and sewage-logging of the soil must go on increasing in the absence of effectual drainage, the death-rate from fevers may be expected likewise to increase. The mortality from dysentery and diarrhoea although high, was below the average. The indifferent quality of the water-supply doubtless favours the prevalence of these diseases. Of small-pox there was very little: only 12 deaths were recorded as due to this disease. Vaccination is carefully carried out in Madras. The number of children under one year of age who were vaccinated exceeded the number born, after deducting still-births and children who died before reaching six months, the age of compulsory vaccination. But as more than a fourth of the children vaccinated were not born and registered in Madras, the statement that the number of vaccinations exceeded the number of children born in Madras and available for vaccination might convey a too favourable impression regarding the extent of the protection against small-pox. Standard Statement No. I, sanctioned by the Government of India, should be used in the preparation of vaccination statistics. This suggestion has been already made by us in our memoranda, but without effect. Unless there is uniformity in the preparation of these statistics, comparison between the results in different cities and provinces is difficult, or impossible. No substantial improvement was actually effected in the sanitary condition of the city during the year. The drainage and water-supply schemes absolutely necessary before Madras can ever hope to become a healthy town are still in abeyance. The cost in the case of the former is very heavy, and in the case of the latter is considered to be prohibitive.

14th October 1896.

No. 10.

Statistics

12th November 1896

The

Letter to Fort St. George,
No. 1, and enclosure.

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When copied

When examined

When signed

1897

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. 189

DATED

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