



REPORT OF THE DIRECTOR OF PUBLIC
HEALTH, MADRAS, FOR 1939

INCLUDING

ADMINISTRATION OF VACCINATION
IN 1939-40

AND

FIFTIETH ANNUAL REPORT OF THE
SUPERINTENDING ENGINEER
(PUBLIC HEALTH)
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RAINFALL AND PRICE OF FOOD STUFFS

The average district rainfall was 51.59 inches in 1939 as against 45.21 in 1938. The seasonal distribution as compared with that in the previous year and the average for 5 years ending with 1938 is given below :—

	1938.	1939.	Average for 5 years ending 1938.
	INCHES.	INCHES.	INCHES.
Inter-monsoon period (January to May)	6.40	7.04	6.21
South-west monsoon period (June to September)	31.19	23.07	26.10
North-east monsoon period (October to December)	7.62	21.48	13.89
Total	45.21	51.59	46.20

The rainfall was nearly normal in the Ceded districts, South Arcot, North Arcot, Madura and Malabar districts and was in excess of normal in the districts of East Godavari, West Godavari, Kistna, Guntur, Nellore, Chittoor, Salem, Coimbatore, Trichinopoly, Tanjore, Ramnad and the Nilgiris. In the other districts, it was in defect of the normal. The highest rainfall of 123.12 inches was recorded in South Kanara district and the lowest of 21.49 inches in Anantapur district. On the whole, it was satisfactory during the year under report. However, the failure of north-east monsoon in the previous year caused famine in certain taluks of Coimbatore district, and economic distress was experienced in the districts of Chingleput, Chittoor, Trichinopoly, Madura and Ramnad.

2. The average prices of principal food grains are set forth in the following table :—

Grains.	Seers per rupee in			Percentage variation of prices in 1939 from 10 years average.
	1939.	1938.	Average for 10 years ending 1938.	
Rice (second sort)	9.9	10.3	9.7	- 2.0
Ragi	15.6	17.8	18.3	+ 4.5
Cholam	15.0	15.7	15.6	+ 3.3
Cumbu	14.4	15.7	15.1	+ 4.9

The prices of principal food grains have increased as compared with those of the previous year and excepting rice the prices also show a small rise over the average for the previous ten years.

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VITAL STATISTICS.

GENERAL POPULATION.

3. The extent of the Madras Province is 125,438 square miles and its population exclusive of the Indian States is 44,182,017 as per census of 1931. The density of population works out to 353 persons per square mile. According to census of 1931, the number of persons per occupied house in the British territory as it was then constituted was 5.05. The estimated mid-year population of the Province for 1939, calculated on the geometrical progression method is 47,927,200, while that arrived at by natural increase method is 48,717,030. As compared with the census population, these have increased by 8.5 and 11.0 per cent respectively. As no proper system of registration of births and deaths exists in Vizagapatam Agency the vital statistics relating to this area have been excluded in this report. The population for which vital statistics are recorded in this of which the urban population (municipalities and rural towns) is 6,190,709 and rural 37,794,488. The total number of villages and towns in the province exclusive of Vizagapatam Agency is 36,957 as per census of 1931.

MIGRATION OF POPULATION.

4. The following statement gives the number of emigrants during the previous quinquennium:—

Year.	Number of emigrants.	Year.	Number of emigrants.
1935	63,830	1938	51,472
1936	44,683	1939	34,709
1937	106,514		

The number of emigrants has still further decreased as the Government of India prohibited emigration to Malaya during the year and as emigration to Ceylon was stopped from August 1939. Most of the emigrants to Ceylon were recruited from the districts of Trichinopoly, Salem, Madura, Ramnad and Tanjore. The total number of immigrants who were either repatriated or assisted to return from Ceylon, Fiji and South Africa was 39,674.

REGISTRATION OF BIRTHS AND DEATHS.

5. As pointed out in the reports for the two previous years, registration of births and deaths is compulsory in all municipalities and in those villages to which the provisions of the Madras Registration of Births and Deaths Act, 1899, have been extended. During the year, the Act was further extended to only a few villages in Tanjore district, the percentage of villages where the Act is in force being 39. Proposals regarding the further extension of the Act are still under the consideration of the Government.

The mere extension of the Act will not by itself effect improvement in registration. Most of the rural population are not conversant with the rules regarding registration of births and deaths and the provisions of the

Act in regard to their obligation in reporting vital events should be made known to them. The health staff has been instructed to carry on propaganda on the importance of registration by means of talks and distribution of leaflets.

6. In municipalities and a few panchayats specially trained staff was employed as registrars of births and deaths. Twenty-four candidates were trained as birth and death registrars at Trichinopoly and Rajahmundry by the Municipal Health Officers concerned. In villages the agency employed for registration of births and deaths is the village headman. Under this system, it is not possible to record more detailed classification of causes of deaths. With a view to improving accurate registration, the Rural Medical Practitioners employed on public health work are required to note correct causes of deaths in the registers during their visits to the villages under their jurisdiction. This will solve the question only to a small extent. The employment of specially trained staff as birth and death registrars in big panchayats will go a long way in improving the accuracy of registration.

7. The health staff detected during the course of their routine inspection of villages 48,415 unregistered births and 15,286 unregistered deaths and of these 31,241 births and 8,653 deaths were detected during the off-season alone. The districts that reported the largest number of omissions were South Arcot, Ramnad, Salem, Nellore and Vizagapatam. The large number of omissions indicates the need for constant vigilance on the part of village headmen to enquire and register births and deaths that occur in their villages. It is hoped that the Revenue authorities will impress on the village headmen the importance of this branch of their work.

8. During the year, 20,938 defaulters under Act III of 1899 were reported to Tahsildars for prosecution. It is still observed in certain districts that most of the defaulters were let off with a warning and that no action has been taken in a few cases. The fines imposed by courts continue to be light. Prosecution of offenders under the Act and the imposition of deterrent punishment will have a salutary effect on registration of births and deaths in the Province.

9. It was suggested at the second meeting of the Central Advisory Health Board that statistics regarding age of mothers at confinement and order of pregnancy should be collected. Accordingly, provision has been made in the birth register to record such particulars. However, an attempt will be made to compile such statistics in 14 big municipal towns.

COMPILATION OF VITAL STATISTICS.

10. The compilation of vital statistics of this Province is done in the office of the Director of Public Health. The monthly birth and death returns of municipalities are required to be forwarded to the Director of Public Health by the 15th of the following month. The birth and death returns of villages where Act III of 1899 is in force, should be submitted to the Tahsildars by the 3rd of the following month in accordance with

rule 3 of the rules issued under the Act. The Tahsildars have to forward the birth and death returns of all villages under their jurisdiction in two batches, one on the 8th and another on the 18th of the month subsequent to the one to which the returns relate. It should therefore be possible for the Tahsildars to collect and forward the vital statistics returns of all villages due for each month at least with the second batch. It is however observed that in some instances returns relating to a particular month are not submitted even after the lapse of five or six months in spite of several reminders. During the year under report returns for 1,557 minor villages have not been received in time for inclusion in this report. They represent 0·37 per cent of the total number of returns due. The birth and death returns for all villages due for the year have been received from the districts of Malabar, the Nilgiris and Anantapur only. Large number of arrear returns were due from the Tahsildars of Namakkal and Attur taluks in Salem district, Pattukkottai taluk in Tanjore district, Koilpatti taluk in Tinnevely district, Sivaganga taluk in Ramnad district and Yellavaram taluk in East Gōdāvari Agency.

The monthly birth and death returns are posted and compiled and consolidated vital statistical statements for districts, municipalities and rural towns with a population of 10,000 and above are published in the *For St. George Gazette*.

GENERAL BIRTH AND DEATH-RATES.

11. The vital statistical rates for an intercensal year calculated on the census population do not provide a reliable index of the state of public health as no allowance is made for the growth of population since the last census. The following statement shows the birth and death rates calculated on the census and the mid-year estimated populations and their differences:—

Year.	Mid-year estimated population.	of Number births.	Birth-rate based on the estimated population.	Birth-rate based on the census population.	Difference.	of Number deaths.	Death-rate based on the estimated population.	Death-rate based on the census population.	Difference.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1931	45,302,074	1,606,403	35·4	35·5	-0·1	1,072,572	23·7	23·7	0·0
1932	45,763,500	1,627,381	35·6	36·0	-0·4	992,024	21·7	22·0	-0·3
1933	46,209,300	1,704,245	36·9	37·7	-0·8	1,068,423	23·1	23·7	-0·6
1934	46,659,239	1,663,906	35·6	36·2	-1·2	1,127,169	24·2	25·0	-0·8
1935	47,113,707	1,671,186	35·5	37·0	-1·5	1,124,336	23·9	24·9	-1·0
1936	46,543,720	1,659,635	35·7	37·8	-2·1	1,023,839	22·0	23·3	-1·3
1937	47,000,390	1,701,662	36·2	38·7	-2·5	1,054,430	22·4	24·0	-1·6
1938	47,461,550	1,709,545	36·0	38·9	-2·9	1,032,052	21·7	23·5	-1·8
1939	47,927,200	1,694,751	35·3	38·5	-3·2	1,111,231	23·2	25·3	-2·1

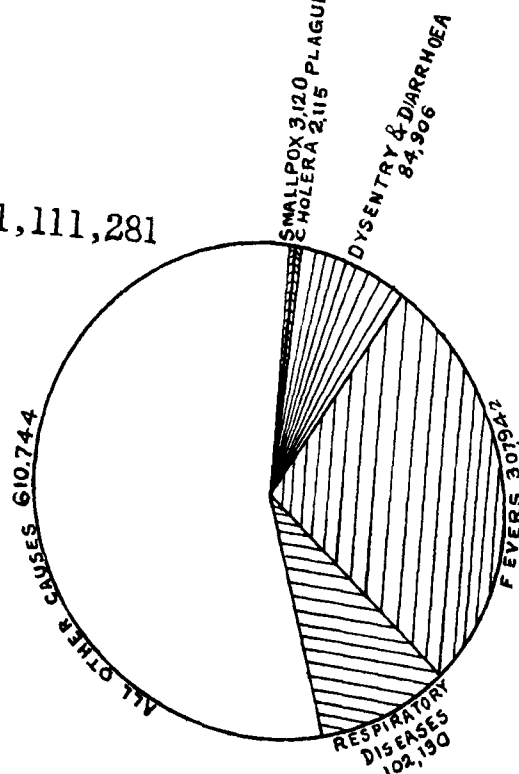
The difference between the rates becomes larger as years roll by since the last census. It has therefore been proposed to publish at least the birth and death rates for each district calculated on the mid-year estimated population. Annexure L gives the birth and death rates based on census population and the population estimated by geometrical progression and natural increase methods.

* The decrease is due to the transfer of a portion of this province to Orissa.

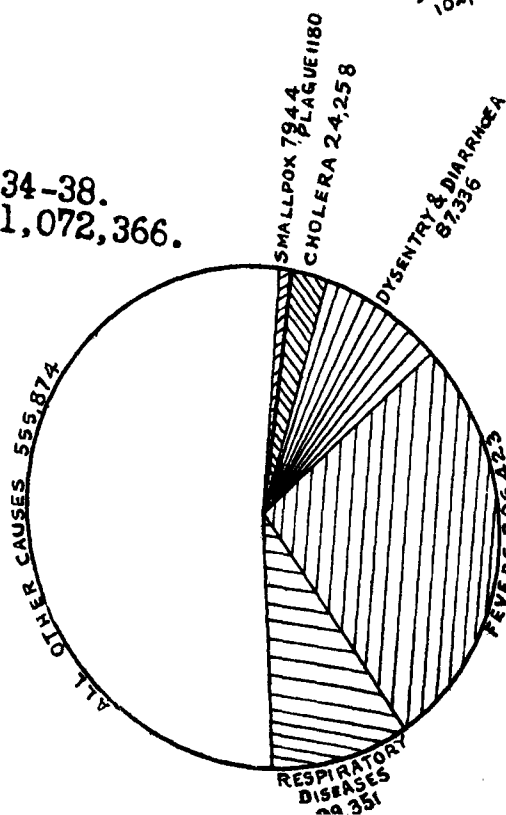
Comparative Diagrams of Deaths by Causes.

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1939
Deaths--1,111,281



Mean 1934-38.
Deaths--1,072,366.



12. The following statement compares the mortality from the several causes of deaths during 1939, 1938 and the quinquennial average for five years ending with 1938:—

Cause of deaths.	Number of deaths recorded in		Average for five years ending 1938.	Increase or decrease in 1939 as compared with	
	1939.	1938.		1938.	Quinquennial average for 1931-1938.
Cholera	2,115	10,252	24,258	-8,137	-22,143
Smallpox	3,120	2,273	7,944	+847	-4,824
Plague	324	1,156	1,180	-831	-856
Fevers	307,942	282,708	296,423	+25,234	+11,519
Dysentery and diarrhoea ...	84,906	71,064	87,336	+10,812	-2,430
Respiratory diseases ...	102,130	96,420	99,351	+5,710	+2,779
Maternal deaths	15,448	15,392	14,372	+56	+1,076
All other causes	595,296	549,788	541,502	+45,508	+53,794
Total	1,111,281	1,032,052	1,072,366	+79,229	+38,915

The recorded deaths under all causes except cholera and plague have increased as compared with those in the previous year. But when compared with the quinquennial average the mortality has increased in respect of fevers, respiratory diseases, maternal deaths and all other causes. The total number of deaths due to the epidemic diseases of cholera, smallpox and plague was responsible for only 0.5 per cent of the total mortality in the province as against 1.3 in 1938.

13. The salient features of the vital statistics recorded during the year are—

(1) A slight fall in the birth-rate from 38.9 to 38.5 per 1,000 of census population and from 36.0 to 35.3 per 1,000 of estimated population.

(2) An increase in the death-rate from 21.7 to 23.2 per 1,000 of census population and from 23.5 to 25.3 per 1,000 of the estimated population.

(3) The mortality from cholera during the year was the lowest on record during the past 58 years. A large fall in the mortality from cholera about 79 per cent as compared with the previous year and 91 per cent as compared with the quinquennial average.

(4) Though there was an increase of 37 per cent in smallpox deaths over that of the previous year, there was a large decrease of 61 per cent as compared with the quinquennial average.

(5) This year recorded the lowest mortality from plague since 1898 when it first occurred in the province. A considerable reduction of 72 per cent and 73 per cent in the deaths from plague as compared with the figures for the previous year and the quinquennial respectively.

(6) A large increase in fever mortality.

BIRTHS.

14. The recorded births during the year numbered 1,694,751 (865,144 boys and 829,607 girls) giving a birth-rate of 38.53 per 1,000 of population as against 38.87 in 1938 and the average rate of 37.70 during the previous five years. There were 259,039 births in urban areas representing a birth-rate of 41.84 per 1,000 of population as compared with 40.55 in the previous year. 1,434,712 births were

registered in rural areas giving a birth-rate of 37.97 per mille as against 38.59 in 1938. While the birth-rate in urban areas has increased the in rural areas has decreased.

The proportion of male to female births was 104 : 100, whereas the ratio in the previous nine years was 105 : 100.

The total number of births recorded among the principal communities and the birth-rates are as follows:—

Communities.	Number of births.	Birth-rate per 1,000 of population.
Hindus	1,490,621	38.34
Muhammadans ..	130,692	39.60
Christians	66,573	38.24
All communities ..	1,694,751	38.53

The highest birth-rate was recorded in the Muhammadan community.

The distribution of births during the months of the year is given in Annexure J. Largest number of births was registered in the third quarter.

15. Statement I of Appendix I gives the number of births and birth-rate registered in each district during the year. The birth-rate varies from 42.99 in Kurnool district to 32.36 in Tanjore district. Nine districts recorded birth-rates of over 40 per 1,000 of population, 15 from 35 to 40, and 2 from 30 to 35. The districts that registered low birth-rates were Tanjore (32.36) and East Godavari Plains (34.69) the low rate in the latter is reported to be due to defective registration. As compared with the previous year, the birth-rates have increased in eleven districts, the increase ranging from 3.13 in the Nilgiris to 0.10 in Guntur district. The birth-rates in other districts have decreased, the decrease ranging from 4.64 in Anantapur district to 0.48 in Salem district. The large fall in the birth-rate in Anantapur district is attributed to epidemic malaria and influenza prevalent in the district.

The birth-rate was in excess of death rate in all districts, the maximum being 19.31 in Madura district and the minimum (excluding Madras) being 3.75 in Anantapur district.

16. The number of still-births registered in the Province was 26,825 (14,830 males and 11,995 females) giving a rate of 15.84 per 1,000 live-births. This low rate as compared with the rate of 50.00 in municipalities only indicates that many still-births are not registered in rural areas.

BIRTHS IN MUNICIPALITIES.

17. The number of births registered in municipalities totalled 161,115 during the year giving a birth-rate of 43.90 per 1,000 of population as against 42.51 in the previous year. The total number of births and birth-rates registered in each municipality are given in Statement VI of Appendix I. Fifty-two municipalities, recorded birth-rates over 40 per mille 29 between 40 and 30, and one below 30 per mille Cannanore recorded the lowest rate of 28.47 per mille. When compared to the previous year, there was a rise in birth-rates in 54 municipalities and a fall in 27 while it was the same in one municipality.

8,056 still-births (4,498 males and 3,588 females) were registered during the year giving a rate of 50.00 per 1,000 live-births.

BIRTHS IN RURAL TOWNS.

18. Chirala municipality was abolished from 1st June 1939 and was constituted into Chirala and Perala Panchayats. As vital statistics for these two towns were not separately available for the whole year, the figures for the towns have been combined and given as for one town in Statement VI. The total number of rural towns with a population of 5,000 and above comes to 242.

97,924 births were recorded in the rural towns giving a birth-rate of 38.85 per 1,000 of population as against 37.65 in 1938.

19. It will be seen from the following table that registration of births has been gradually improving ever since 1923 when the health scheme was introduced:—

Birth-rates per mille of population.	1923.		1927.		1932.		1937.		1938.		1939.	
	Number of rural towns.	Percentage to total.	Number of rural towns.	Percentage to total.	Number of rural towns.	Percentage to total.	Number of rural towns.	Percentage to total.	Number of rural towns.	Percentage to total.	Number of rural towns.	Percentage to total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Over 40	19	8.8	60	32.1	55	22.4	89	36.9	90	37.5	106	44.0
40—30	60	27.0	95	44.1	122	49.6	119	49.4	110	45.8	104	43.2
30—20	93	43.3	41	19.1	60	24.4	31	12.9	35	15.9	30	12.4
Below 20	43	20.0	10	4.6	9	3.6	2	0.8	2	0.8	1	0.4
Total number of rural towns ..	215	...	215	...	246	...	241	...	240	...	241	...

The percentage of rural towns which recorded birth-rates less than 20 per mille in 1939 was only 0.4 as against 20 in 1922; and the percentage of towns which registered birth-rates between 20 and 30 per mille was 12.4 as against 43.3 in 1922.

Kandanur (Ramnad district) recorded the lowest birth-rate of 19.90 per mille.

DEATHS.

20. 1,111,281 deaths (563,478 males and 547,803 females) were registered during the year giving a death-rate of 25.26 per 1,000 of population as against 1,032,052 in the previous year with a rate of 23.46 and the average of 24.12 for the five years ending 1938. The total mortality recorded in urban areas was 178,963 giving a death-rate of 28.91 per 1,000 of population as against 26.71 in 1938. There were 932,318 deaths in rural areas representing a rate of 24.67 per mille as against 22.93 in the previous year. The death-rates in urban and rural areas have increased as compared with the previous year. The proportion of male to female deaths was 103 : 100.

21. Statement II, Appendix I, gives the recorded number of deaths and the death-rates per 1,000 of population according to sex for the several

districts in the Province. Excluding Madras which recorded a death rate of over 40 per mille 5 districts registered death-rates between 40 and 30 per mille, 19 between 30 and 20 and 1 below 20 per mille. High death-rates were recorded in the districts of Anantapur (36·11), Kurnool (34·18), Bellary (31·43), West Godavari (30·70), and East Godavari Agency (30·04). The lowest death-rate of 19·47 was returned from Salem district. When compared with the previous year, the death-rates have increased in 22 districts and decreased in 4 districts. The increases were high in the districts of Anantapur (+10·05), Bellary (+7·96), Madras (+5·46), Cuddapah (+5·12) and Kurnool (+4·62). The rise in the death-rates in the Ceded districts was mainly due to malaria and in Anantapur to influenza also that was prevalent in an epidemic form.

22. The following statement shows that the highest number of deaths occurred in the fourth quarter and the lowest in the second :—

				Number of deaths.	Percentage to total.
First quarter	..	..	..	264,022	23·8
Second quarter	..	..	..	256,627	23·1
Third quarter	..	..	..	276,020	24·8
Fourth quarter	..	..	..	314,612	28·3
Total	..			1,111,281	100·0

23. The death-rates among the principal communities given below show that the death-rate among the Hindus is the highest :—

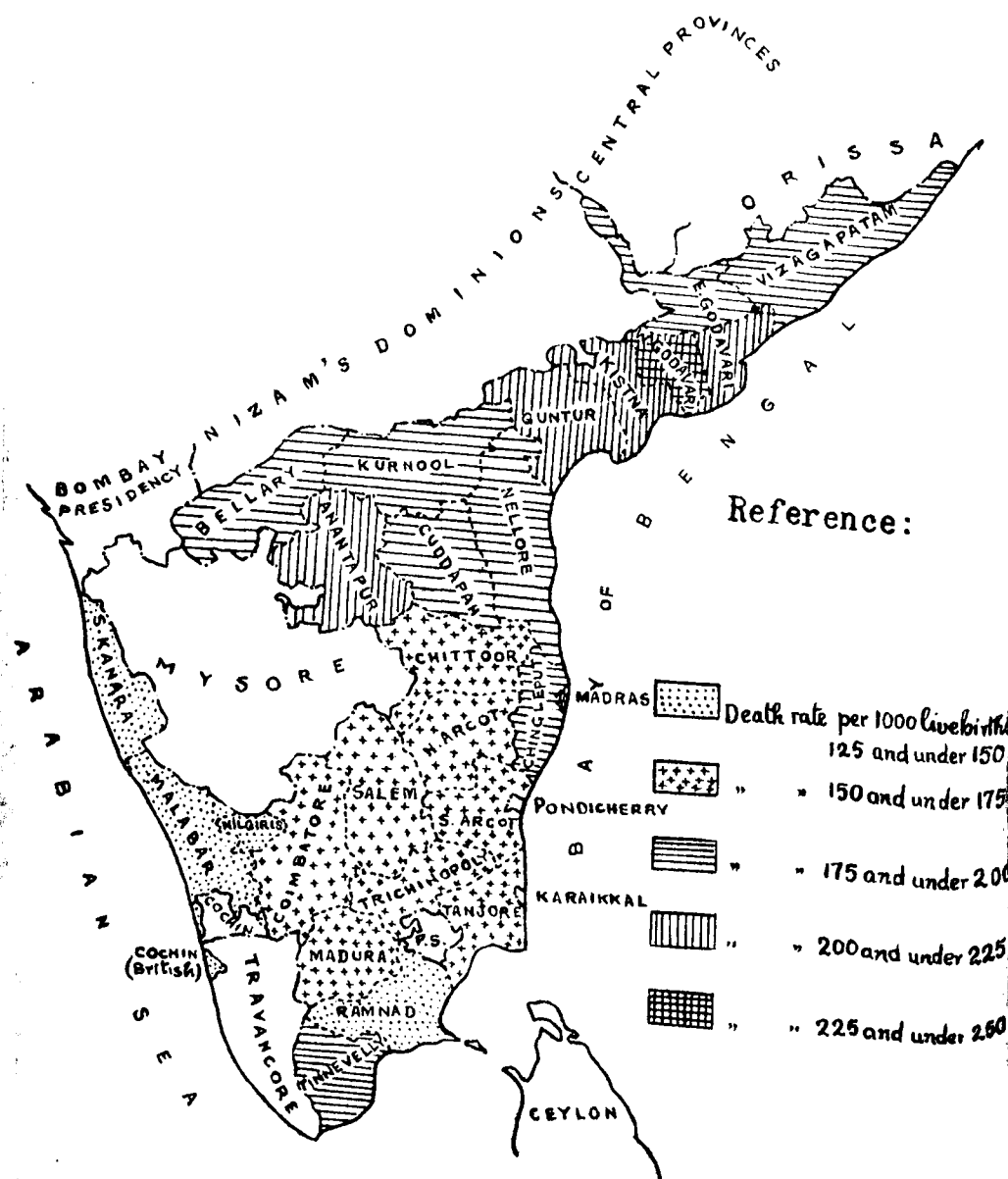
						Death rate per 1,000 of population.
Hindus	..	..	..	..	..	25·48
Muhammadans	..	..	..	..	..	24·39
Christians	..	..	..	..	..	22·07
All communities	..	..	..	..	..	25·26

DEATHS IN MUNICIPALITIES.

24. The recorded number of deaths in municipalities was 117,386 giving a death-rate of 31·99 per 1,000 of population as compared with 29·32 in the previous year. The number of deaths and the death-rate in each municipality are given in Statement VI, Appendix I. Four municipalities registered death-rates over 40, 18 between 40 and 30 and 56 between 30 and 20 and 4 less than 20. High mortality rates were recorded in Madras (46·05), Nellore (45·67), Guntur (41·56) and Ongole (40·67). The high rates in these towns are mainly due to the deaths of non-residents that occur in the medical institutions in the towns. Low rates were returned from Dharapuram (17·84), Bodinayakkanur (18·53), Sivakasi (18·93) and Vaniyambadi (19·35). As compared with the previous year, there was a rise in the death-rate in 62 municipalities and a fall in 10 municipalities.

Map I

MADRAS PROVINCE. INFANTILE MORTALITY RATE PER 1000 LIVE BIRTHS. 1939.



DEATHS IN RURAL TOWNS.

25. In the rural towns, there were 61,577 deaths during the year, giving a death-rate of 24.43 per 1,000 of population as against 22.85 in 1938. Details of the number of deaths registered and the rates are furnished in Statement VI, Appendix I. Two towns recorded death-rates over 40 per mille, 26 between 40 and 30 per mille, 172 between 30 and 20 per mille, 34 between 20 and 15 per mille and seven less than 15 per mille. Yemmiganur, Bellary district (43.99) and Vikramasingapuram, Tinnevely district (42.28) recorded high rates and the towns that recorded low rates were Kovur (11.46), Ilaiyangudi (13.19), Manamadurai (13.35), Kavali (13.88), Kamudi (14.63), Kandanur (14.85) and Sivaganga (14.93). The low rates are partly due to the fact that registration is defective and partly to the receipt of incomplete returns for the whole towns.

AGE AND SEX DISTRIBUTION OF DEATH-RATES IN URBAN AND RURAL AREAS.

26. Statement IV, Appendix I gives the number of deaths as per ages and sex in the rural areas in each district and in each municipality and rural town. The age specific death-rates in rural and urban areas of the Province are also furnished in this statement. An abstract of the statement showing the death-rates according to age and sex in rural and urban areas is given in Annexure K. The following conclusions reached from an analysis of the abstract confirm those of the previous year:—

(a) Excepting in the age group "under one month" and "five to ten years", the death-rates in rural areas are less than those in urban areas, indicating thereby that rural areas are generally healthier than urban areas.

(b) The female mortality rates are decidedly higher than that for males for the age periods 10-40 years, the opposite being the case in the other age periods. This striking fact explains the greater risk of females during the reproductive period.

(c) The age specific death-rates differ widely, the highest rates being recorded in the two extremes of life and the lowest during the age period 10 to 15 years.

INFANTILE MORTALITY.

27. There were 297,474 infantile deaths during the year giving an infantile mortality rate of 175.50 per 1,000 live-births as compared with 283,930 infantile deaths with a rate of 166.04 in the previous year. The number of infantile deaths accounts for 26.8 per cent of the total mortality in the Province. The infantile mortality rates for the age periods "under one month," "one to six months" and "six to twelve months" were 92, 43, and 40 per 1,000 live-births respectively. Graph No. I (a) shows the comparative mortality rates for the different age periods under one year during the past ten years.

28. The following table sets out the infantile mortality and its rate per 1,000 of live-births during the last decennium:—

Year.	Under one month.		One to six months.		6 to 12 months.		Total deaths under one year.	Infantile mortality rate.
	Number.	Percentage to total.	Number.	Percentage to total.	Number.	Percentage to total.		
1930	164,155	54	76,444	25	62,525	21	303,124	185.68
1931	154,383	51	71,462	24	74,064	25	299,909	186.63
1932	157,788	53	70,882	24	69,089	23	297,759	182.98
1933	165,177	52	75,427	24	74,632	24	315,236	184.94
1934	159,356	51	77,735	24	78,265	25	315,356	192.90
1935	153,361	51	74,300	25	70,735	24	298,396	178.47
1936	147,127	54	64,110	24	61,156	22	272,393	164.04
1937	152,931	53	68,693	24	67,296	23	288,920	169.70
1938	155,780	55	66,658	23	61,492	22	283,930	166.04
1939	156,239	53	72,995	25	68,240	22	297,474	175.50

The striking feature noticed in the figures given in the above table is that over 50 per cent of the infants die within one month of their life. The high percentage of neo-natal mortality shows the need for ante-natal care.

MATERNAL MORTALITY.

29. The number of mothers who died of puerperal causes was 15,448 giving a maternal mortality rate of 8.97 per 1,000 births (live and still) as against 15,392 giving a rate of 8.87 in the previous year and the average rate of 8.46 for five years ending with 1938.

GENERAL.

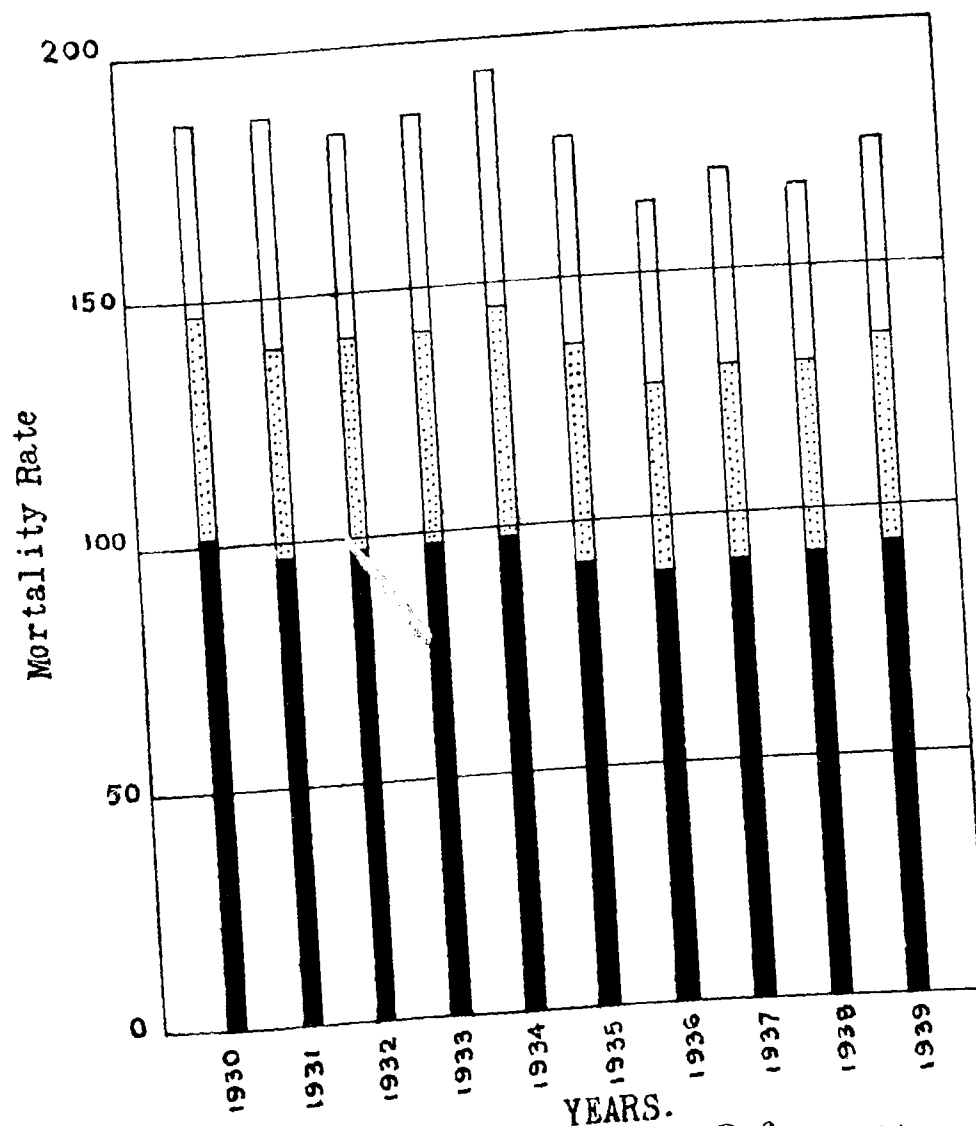
30. The vital index of the Province has decreased from 166 in 1938 to 153 in 1939. However this figure indicates the large addition of population of the province at the end of the year.

31. The vital statistical rates recorded in other provinces during the year are presented in the following statement for purposes of comparison. The standard of registration and compilation of vital statistics in the different provinces should be kept in view in comparing these rates.

Provinces,	Birth-rate.	Death-rate.	Survival rate.	Number of male births to 100 female births.	Number of male deaths to 100 female deaths.	Infantile mortality rate.
Assam	28.44	19.25	9.19	107	109	149.73
Bengal	...	...	...	...	...	...
Bihar	...	...	...	...	...	...
Bombay	43.16	27.55	15.61	108	105	152.70
Central Provinces	38.28	31.07	7.21	106	110	218.62
North West Frontier Province.	30.35	18.74	11.61	132	121	130.52
Orissa	34.92	28.18	6.74	106	100	197.41
Punjab	...	...	...	...	...	...
Sind	20.88	11.55	9.33	126	181	105.75
United Provinces	36.26	23.09	13.17	114	118	139.45
Madras	38.53	25.26	13.27	104	103	175.50

32. Straight lines have been fitted up by the method of least squares to the recorded birth and death-rates in the province since 1901. Chart No. 1 included in the report shows the actual variations in the birth

MADRAS PROVINCE.
Infantile Mortality rate per 1000 Live-Births.
During the years 1930 to 1939.



Reference:



Six to twelve months.

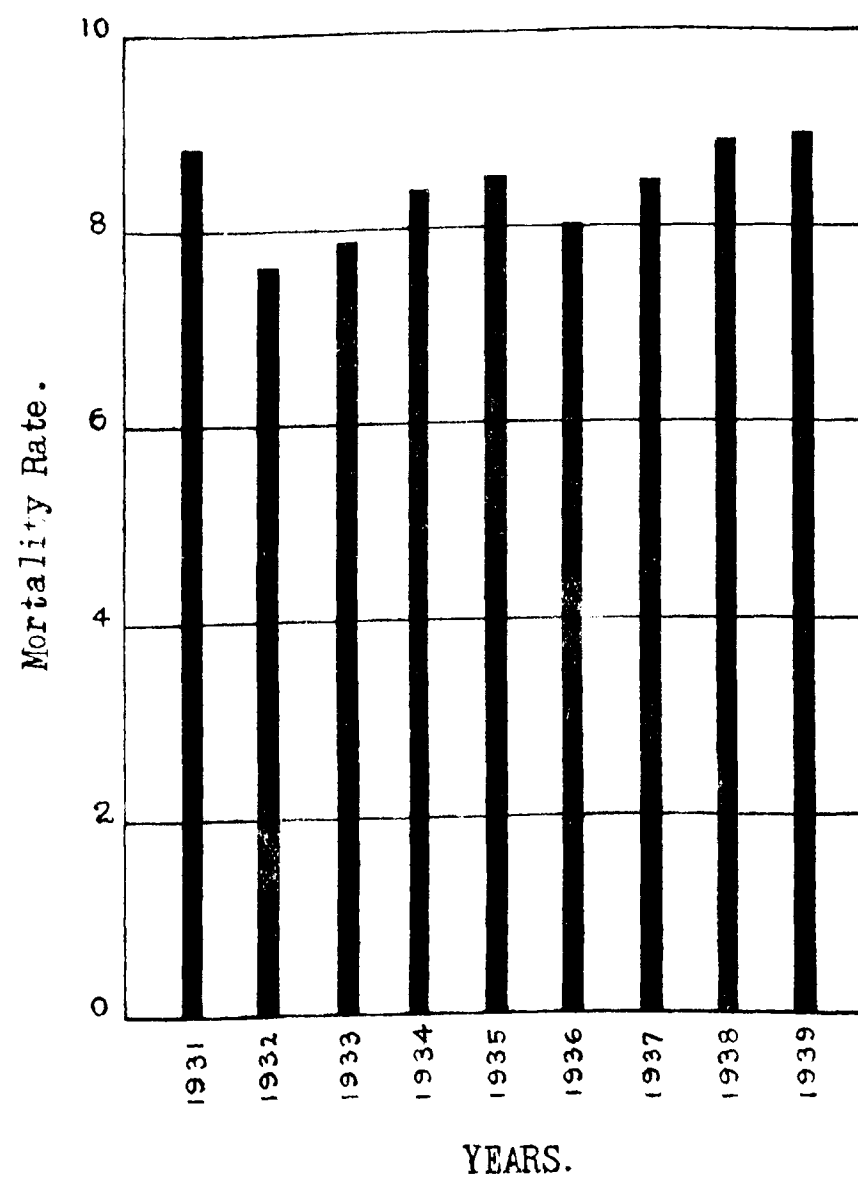


One to six months.



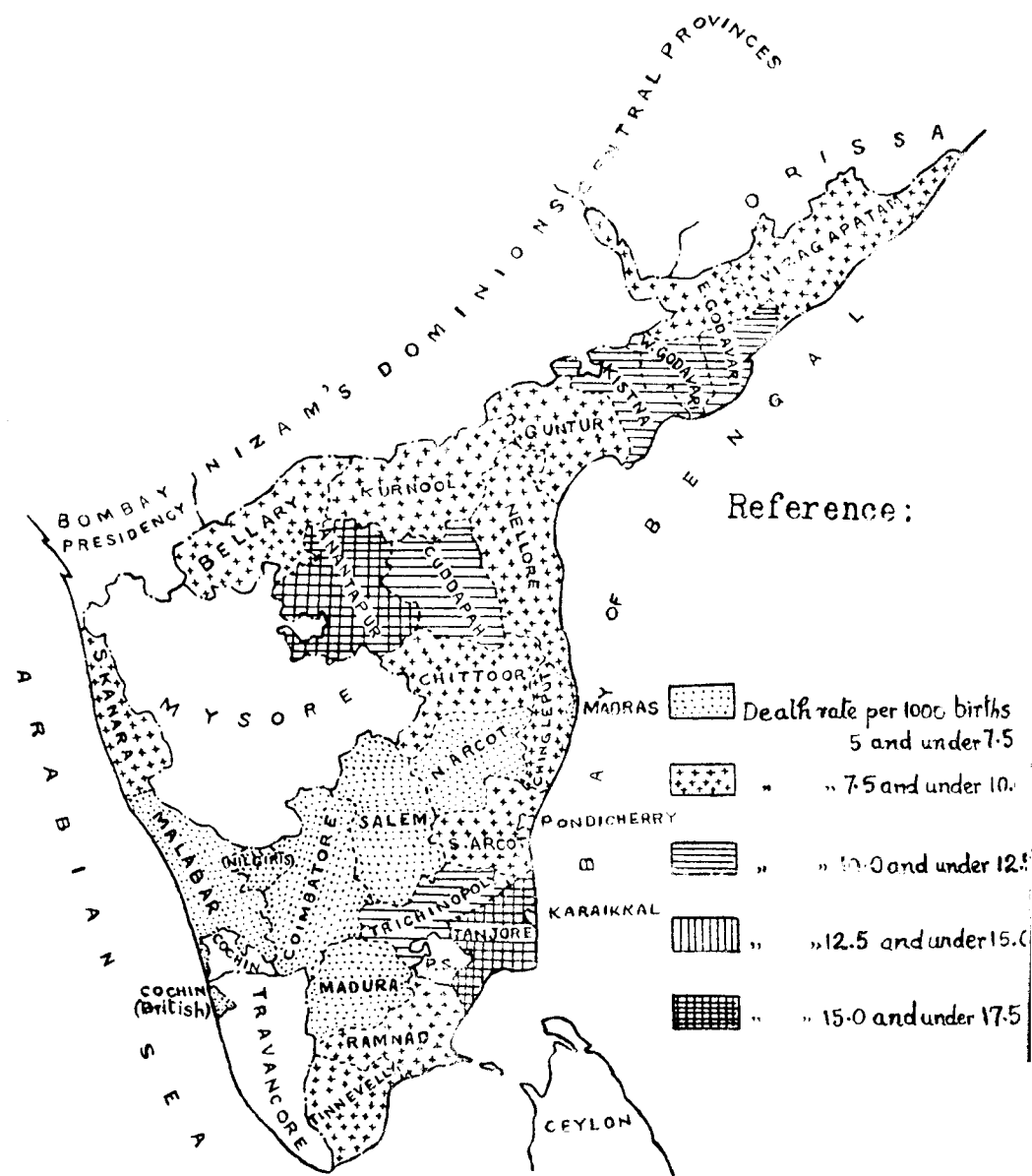
Under one month.

MADRAS PROVINCE.
Maternal Mortality rate per 1000 Births.
During the years 1931 to 1939.

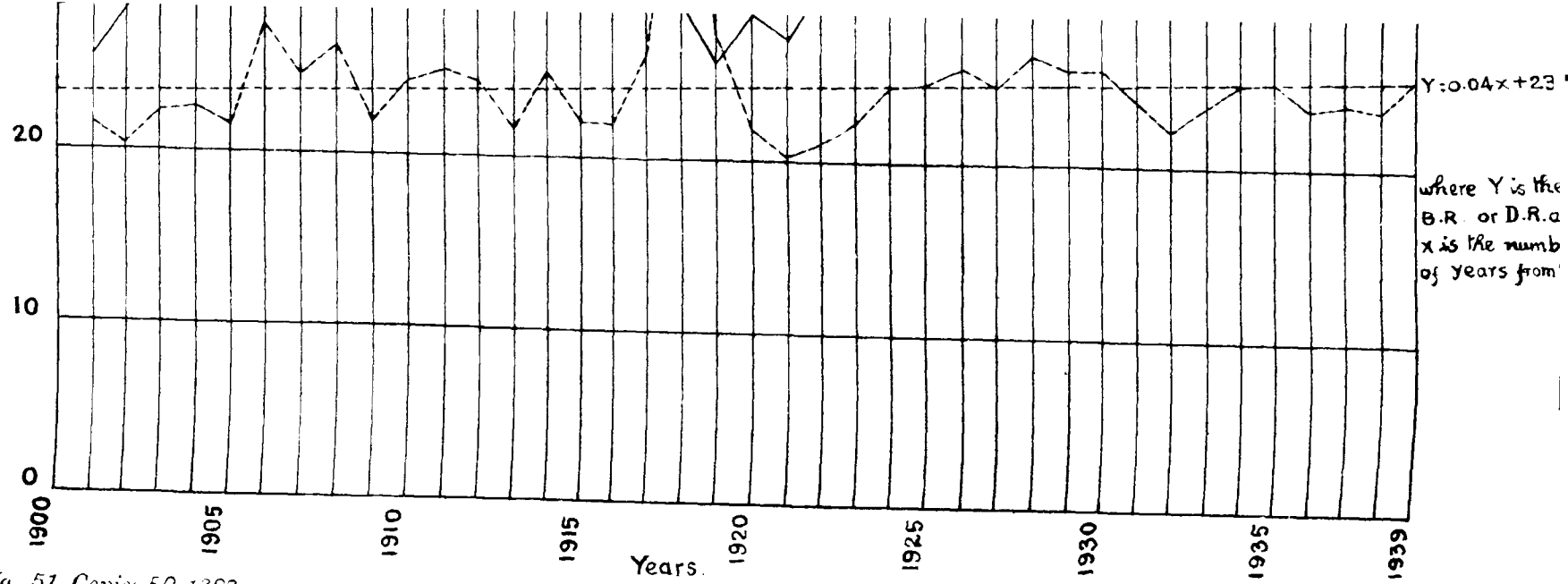


Map II

MADRAS PROVINCE.
MATERNAL MORTALITY RATE PER 1000 BIRTHS.
1939.



Rate per Mille of

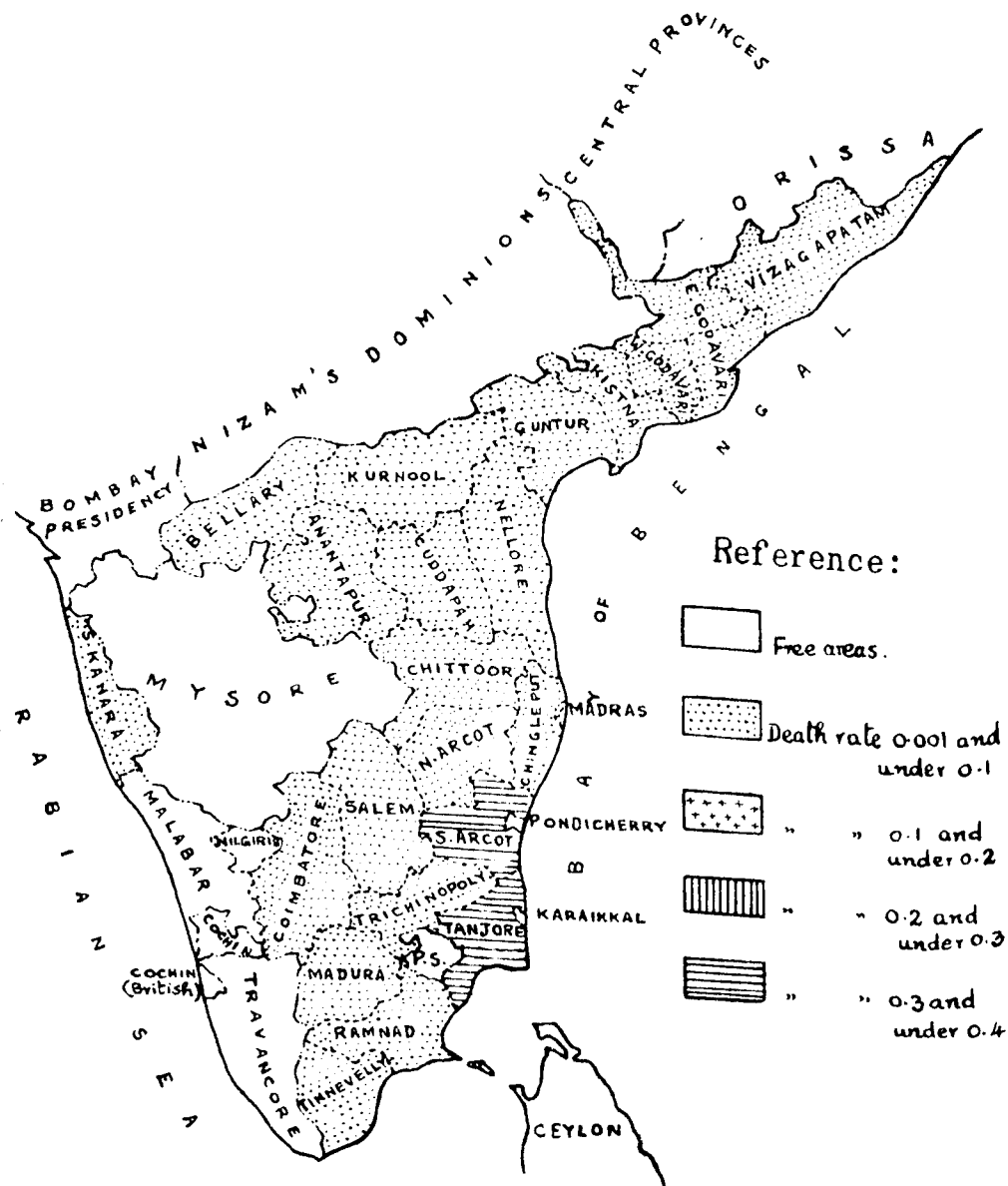


Map III

MADRAS PROVINCE.

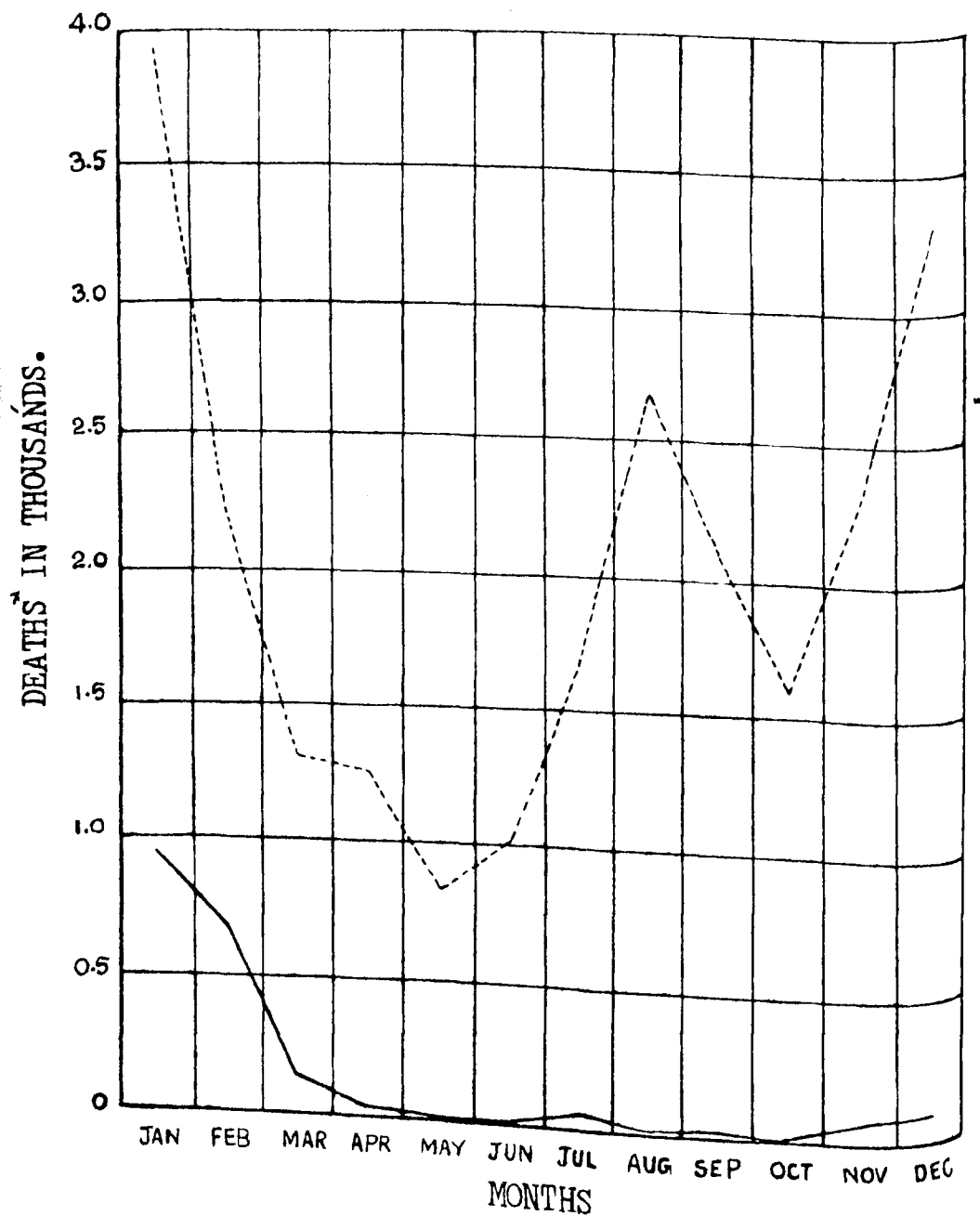
MORTALITY FROM CHOLERA.

1939.



MADRAS PROVINCE.

MEAN MONTHLY DEATHS FROM CHOLERA IN 1934--38
AND MONTHLY DEATHS IN 1939.



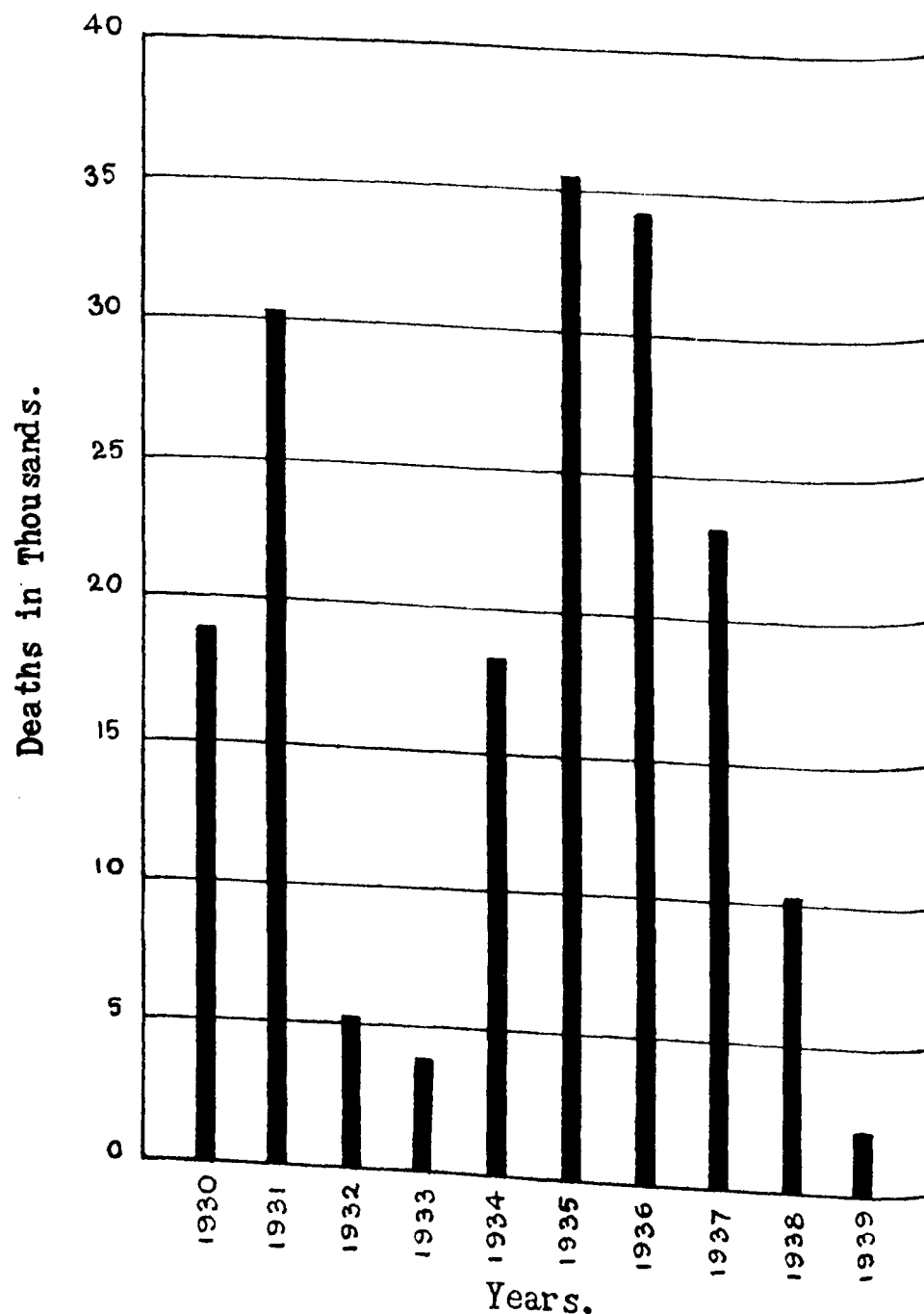
----- 1934-1938.

1939.

Graph III (

MADRAS PROVINCE.

Deaths from CHOLERA during the years 1930 to 1939.



and death-rates and the straight line fitted up to them. It will be seen from it that the average rate of increase of birth-rate is 0.25 per mille and that of death-rate is 0.04 indicating the steady growth of population of the province.

HISTORY OF THE CHIEF DISEASES AND THEIR EPIDEMIOLOGY.

33. One map and two graphs for each of the several important causes of death and one diagram showing the comparative mortality under various causes have been included in this chapter. The maps show the variations in the mortality rate from the several causes in the different districts of the province during the year. The graphs show the annual mortality during the past ten years ending with 1939 as well as the monthly mortality during the year, as compared with the average monthly mortality of the previous five years.

CHOLERA.

34. The following table shows the total cholera mortality in the province during the past decennium :—

Year.	Number of deaths from cholera.	Year.	Number of deaths from cholera.
1930	18,746	1935	35,456
1931	30,232	1936	34,117
1932	5,278	1937	23,307
1933	3,851	1938	10,252
1934	18,158	1939	2,115

The mortality during the year under report is the lowest on record during the past 58 years. It will be seen from the above table that the mortality from cholera after reaching the peak in 1935 has gradually decreased.

35. The number of attacks and deaths from cholera and the number of inoculations performed during the quarters of the year are exhibited in the following statement :—

Quarters.	Number of attacks.	Number of deaths.	Number of anti-cholera inoculations.
First	3,593	1,780	86,554
Second	202	67	8,269
Third	300	102	25,200
Fourth	374	166	23,526
Total	4,469	2,115	143,549

36. The number of deaths registered under cholera has decreased from 10,252 in 1938 to 2,115 in 1939 giving mortality rates of 0.23 and 0.05 per mille respectively. The mortality was highest in the first quarter and lowest in the second quarter. The districts of South Arcot, Tanjore and Trichinopoly experienced a severe epidemic during the first quarter and reported only stray cases during the other quarters being free from the

usual winter epidemic. These districts alone were responsible for 84 per cent of the total cholera deaths in the province during the year. There was a mild epidemic in Kistna district during the third quarter and in Bellary and Kurnool districts during the last quarter. The Nilgiris was completely free during the year, while the other districts were either practically free or reported only sporadic cases. Only nine municipalities were affected during the year and reported in all 67 deaths from cholera, the largest number being returned from Kumbakonam (27) and Mayavaram (21).

37. The winter epidemic of 1938 continued to persist in a severe form in Chidambaram taluk of South Arcot district, in Udaiyarpalaiyam taluk of Trichinopoly district and in Kumbakonam, Mayavaram, Nannilam and Shiyali taluks of Tanjore district. The infection in Trichinopoly district is reported to have been imported from the districts of South Arcot and Tanjore. The epidemic subsided by the end of April. During May and June only stray cases were reported. A mild epidemic broke out in Divi taluk of Kistna district in July, the cases reported being indigenous and was brought under control by August. After a period of quiescence during September and October, a mild wave of epidemic passed over Nandikotkur and Kurnool taluks in Kurnool district and in Adoni, Yemmiganur and Bellary taluks in Bellary during November and December.

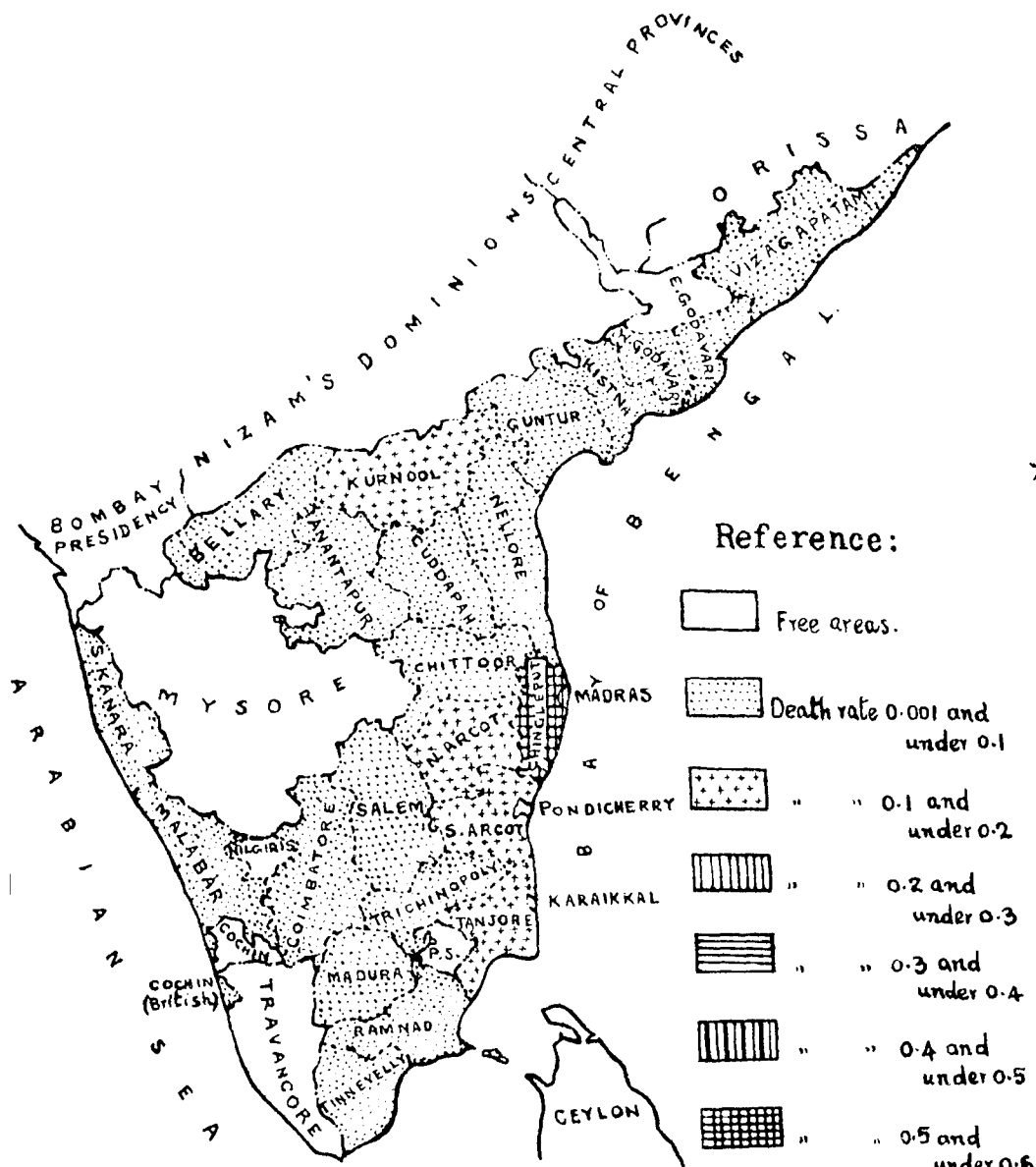
The taluks of Adoni and Yemmiganur in Bellary district and Moka village in Bellary taluk were notified under section 76 of the Public Health Act and powers were conferred on the Collector and the District Health Officer.

38. Two forecasts of probable trends of cholera epidemics in the province were made during the year and were published in the Press for the guidance of the public. These proved to be almost correct. Special circulars were issued to the health staff to take all preventive and precautionary measures in the district where epidemics were anticipated. In South Arcot district a system of pre-chlorination of all water sources a few days before the probable date of outbreak of cholera as forecasted by this office was started in the three taluks of Vriddhachalam, Cuddalore and Chidambaram with a special staff of 20 maistris under the supervision of Health Inspectors from August to December 1939. This perhaps accounts for the low mortality under cholera during the winter.

39. An interesting extract from the report of the District Health Officer, Tanjore, on cholera enquiry in the district is given below: "Enquiries were made promptly by the District Health Officer and the Officer in charge of the Cholera Enquiry of the Indian Research Fund Association, who has been specially deputed for this work. Investigations made clearly show that in none of these cases, cholera vibrios were isolated and these therefore cannot be taken as genuine cases of cholera. Samples of water taken from tanks by the Cholera Enquiry Officer from villages usually affected with cholera year after year showed complete absence of these vibrios."

40. In the final report of cholera in South Arcot district, the District Health Officer considered that the lower anicut is the focus of cholera for

1939.

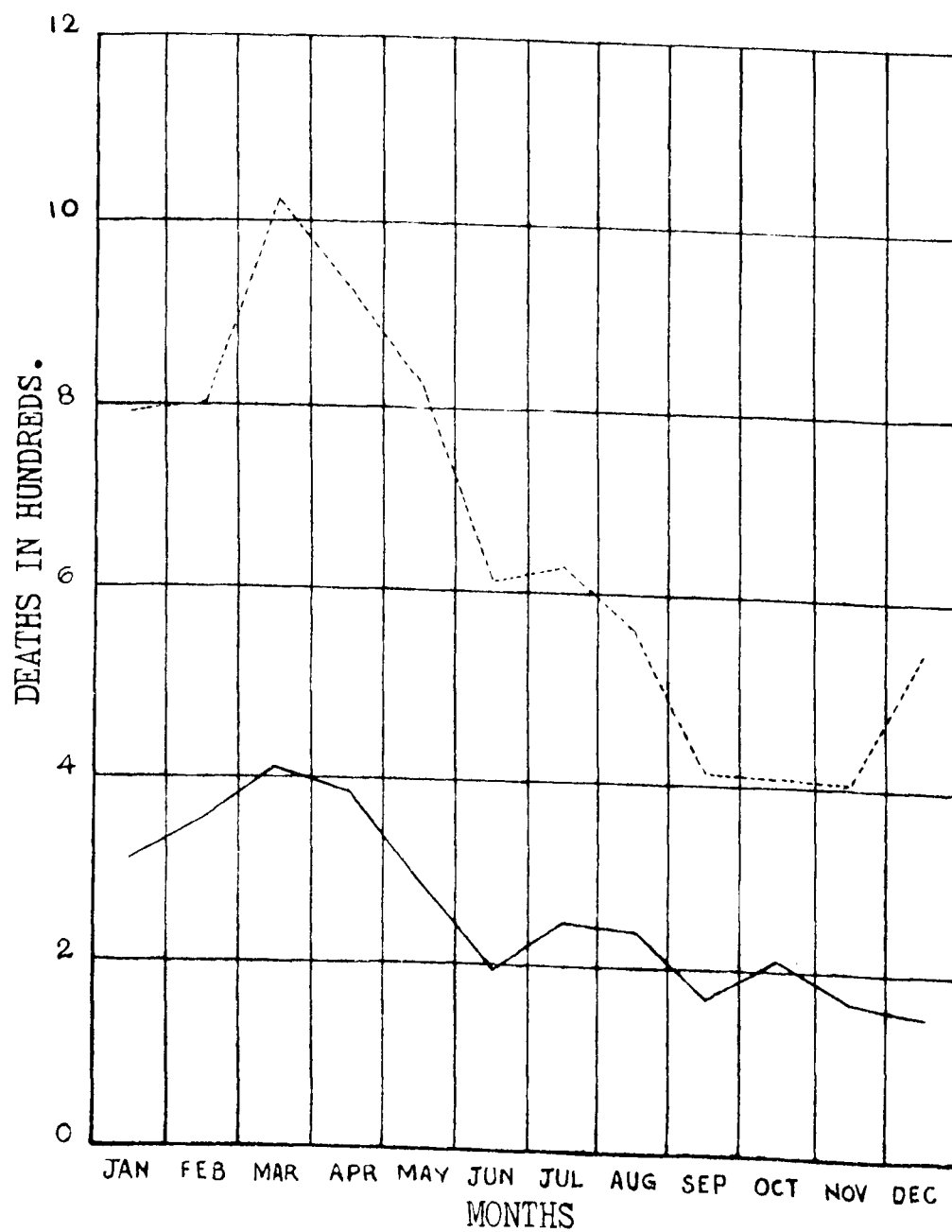


Graph IV (b)

MADRAS PROVINCE.

MEAN MONTHLY DEATHS FROM SMALLPOX IN 1934--38

AND MONTHLY DEATHS IN 1939.

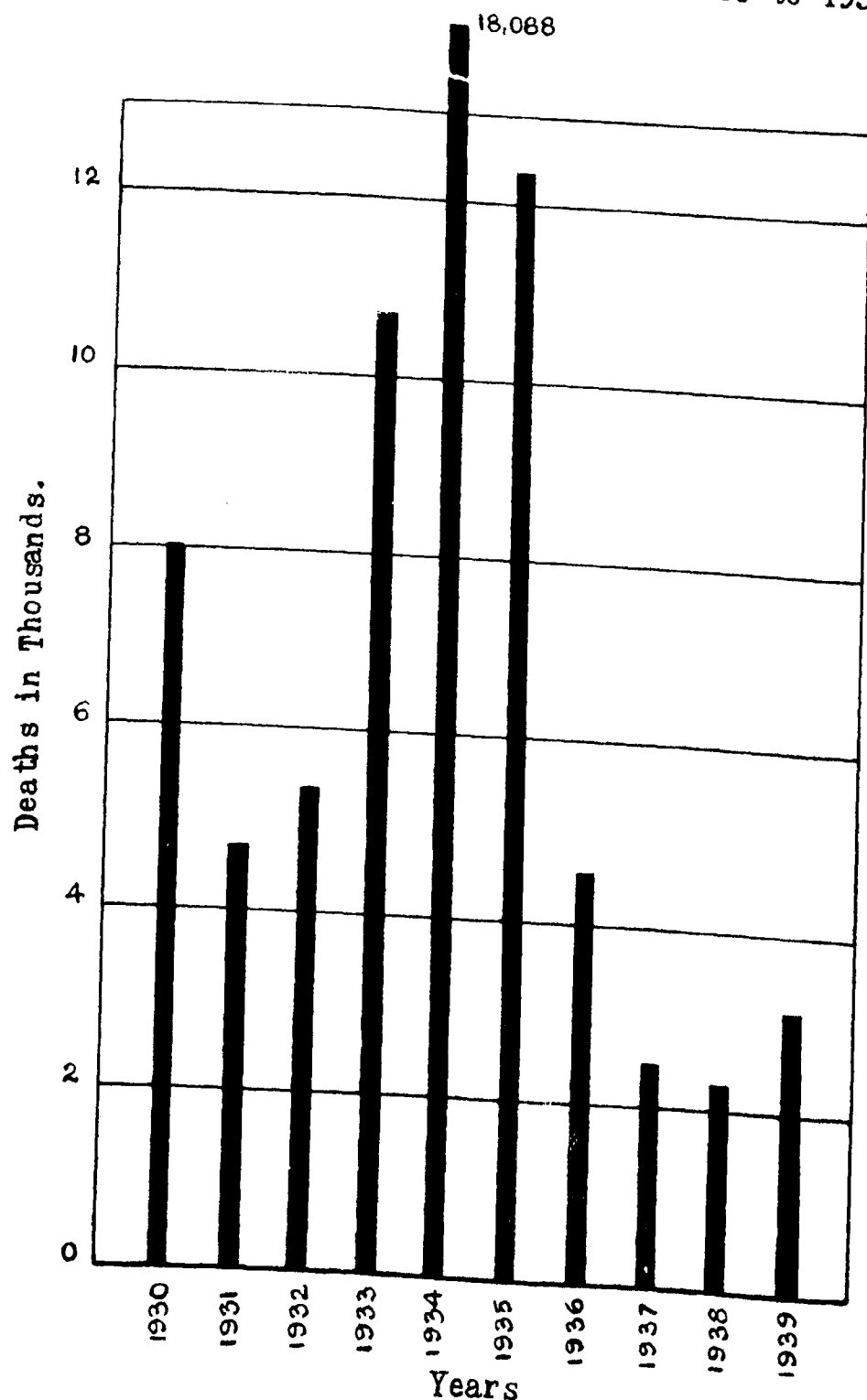


----- 1934-38.

———— 1939.

MADRAS PROVINCE.

Deaths from SMALLPOX during the years 1930 to 1939.



the three districts of South Arcot, Trichinopoly and Tanjore. The Government have requested the Director of Public Health to investigate the matter carefully and submit a report. In this connexion, two conferences of the Assistant Director of Public Health (Epidemic) and the District Health Officers of the districts of South Arcot, Trichinopoly and Tanjore were held during the year. Certain data regarding cholera statistics and graphs in the areas affected are under preparation.

41. Rules have been framed under section 81 of the Public Health Act for the prevention and control of cholera in municipal and rural areas and are under the consideration of Government. A separate set of rules has also been drawn for combating cholera in the city of Madras and is also under the consideration of Government. Government have framed rules for the conveyance of infected persons and commodities by public conveyances. Rules have also been issued in respect of attendants, nurses, etc., to accompany infected persons in public conveyances.

SMALLPOX.

42. The following table presents the trend of the mortality from smallpox during the past ten years:—

Year.	Number.	Year.	Number.
1930	8,025	1935	12,330
1931	4,660	1936	4,581
1932	5,363	1937	2,446
1933	10,745	1938	2,273
1934	18,088	1939	3,120

The mortality in the second half of the decennium shows a large fall as compared with the first half and is perhaps due to the vigorous campaign of primary and re-vaccinations in the last years of the decade.

43. The total deaths from smallpox numbered 3,120 during the year giving a mortality rate of 0.07 per mille, as against 2,273 in the previous year with a rate of 0.05 per mille, the quinquennial average rate being 0.18 per mille. As in the previous year, the maximum number of deaths from smallpox was recorded in the first quarter and the mortality gradually declined in the subsequent quarters. The Nilgiris district and East Godavari Agency did not return even a single death from smallpox, while the districts of Madura, South Kanara, Vizagapatam, Bellary, West Godavari, Tinnevely, Ramnad and East Godavari reported only stray cases. The districts severely affected were Chingleput (0.51), South Arcot (0.15), North Arcot (0.13) and Tanjore (0.13) the infection persisting throughout the year. In the other districts the epidemic was moderately severe.

Thirty municipalities registered in all 667 deaths from smallpox during the year giving a mortality rate of 0.18 per mille as compared with 0.20 per mille in 1938. The municipalities that recorded high mortality rates were Saidapet (1.42), Tiruvarur (1.18), Guntur (0.81), Vellore (0.68), Conjeeveram (0.44), Madras (0.41) and Salem (0.40).

44. The following table shows the distribution of smallpox deaths according to ages during the past ten years:—

Year.	Under 1 year.		One to 10 years.		Over 10 years.	
	Number.	Percentage to total.	Number.	Percentage to total.	Number.	Percentage to total.
1930*	2,324	33.5	1,865	26.9	2,753	39.6
1931†	1,610	40.2	907	22.6	1,488	37.2
1932	1,455	27.1	1,686	31.4	2,222	41.5
1933	3,081	28.7	3,009	28.0	4,655	43.3
1934	5,593	30.9	5,516	30.5	6,979	38.6
1935	2,338	27.1	3,751	30.4	5,241	42.5
1936	1,232	26.9	1,327	28.9	2,022	44.2
1937	677	27.7	713	29.1	1,056	43.2
1938	496	26.2	583	25.6	1,094	48.2
1939	724	23.2	954	30.6	1,442	46.2

The percentage of deaths from smallpox under one year of age has been steadily decreasing, while that for the age period over ten years has been increasing. The proportion for the age period 1 to 10 years does not show much variation.

45. In accordance with the instructions issued by the Government of India, a summary of the statistics relating to vaccinal conditions of smallpox cases treated in infectious disease sheds and isolation hospitals is given below:—

(a) Vaccinated in infancy as evidenced by one or more cicatrices	...	...	...	...	657
(b) Stated to have been successfully vaccinated in infancy but no vaccination cicatrix present	...	...	...	...	134
(c) Stated to be unvaccinated or unsuccessfully vaccinated and no vaccination cicatrix present	...	...	...	...	319
(d) Previously unvaccinated but vaccinated during the incubation period of smallpox	...	...	...	...	32
(e) Stated to have been successfully re-vaccinated	...	...	...	...	96
Total treated	...	...	...	...	1,307

PLAGUE.

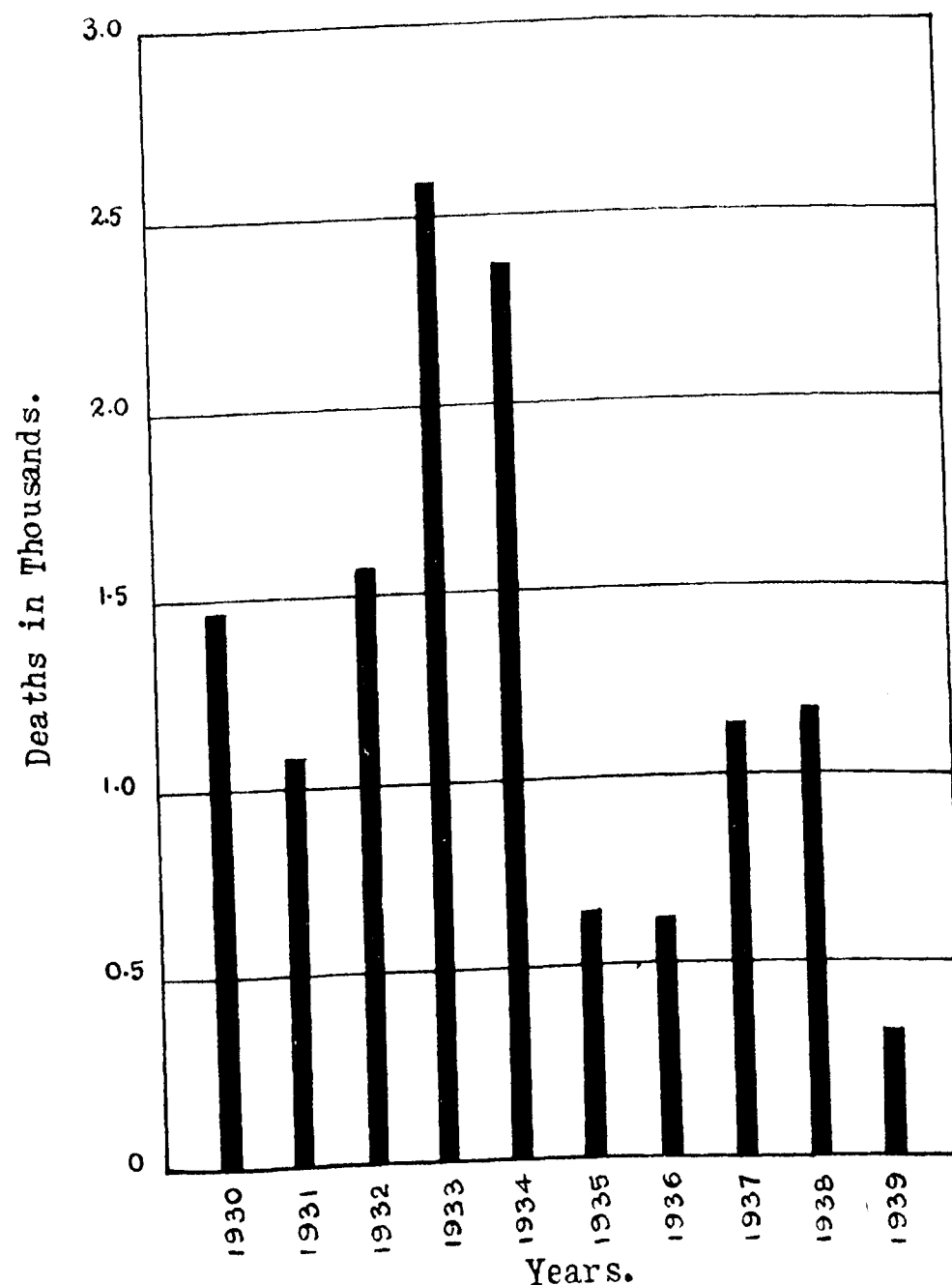
46. The following statement shows the comparative mortality from plague for each quarter during the past five years:—

	1935.	1936.	1937.	1938.	1939
First quarter.	276	136	302	435	188
Second quarter	17	29	120	91	24
Third quarter	92	205	298	301	26
Fourth quarter	280	245	407	328	86
Total	645	615	1,127	1,155	324

* The figures for this year are exclusive of those for two districts.
† Do. do. five do.

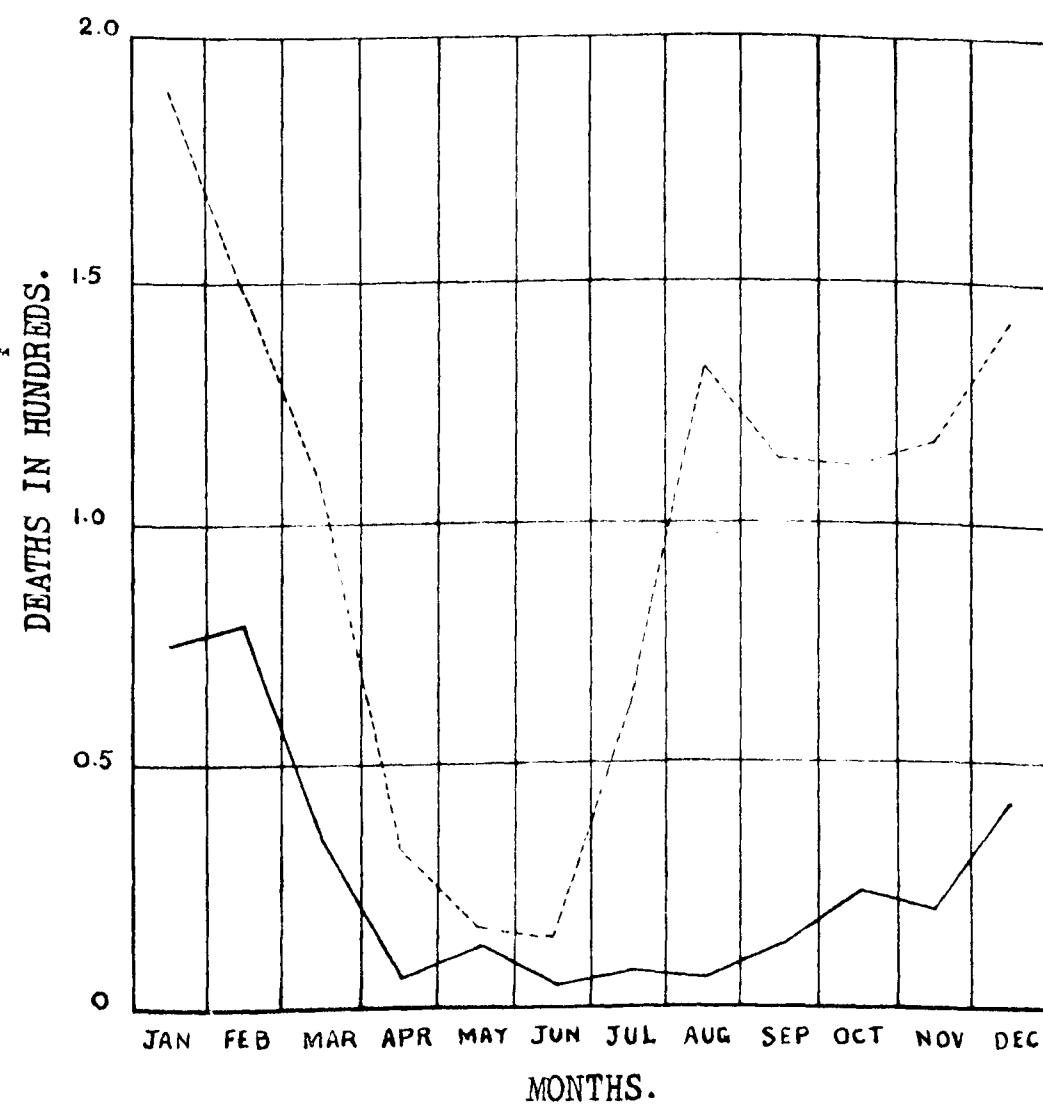
MADRAS PROVINCE.

Deaths from PLAGUE during the years 1930 to 1939.



MADRAS PROVINCE.

MEAN MONTHLY DEATHS FROM PLAGUE IN 1934--38
AND MONTHLY DEATHS IN 1939.



----- 1934-38.

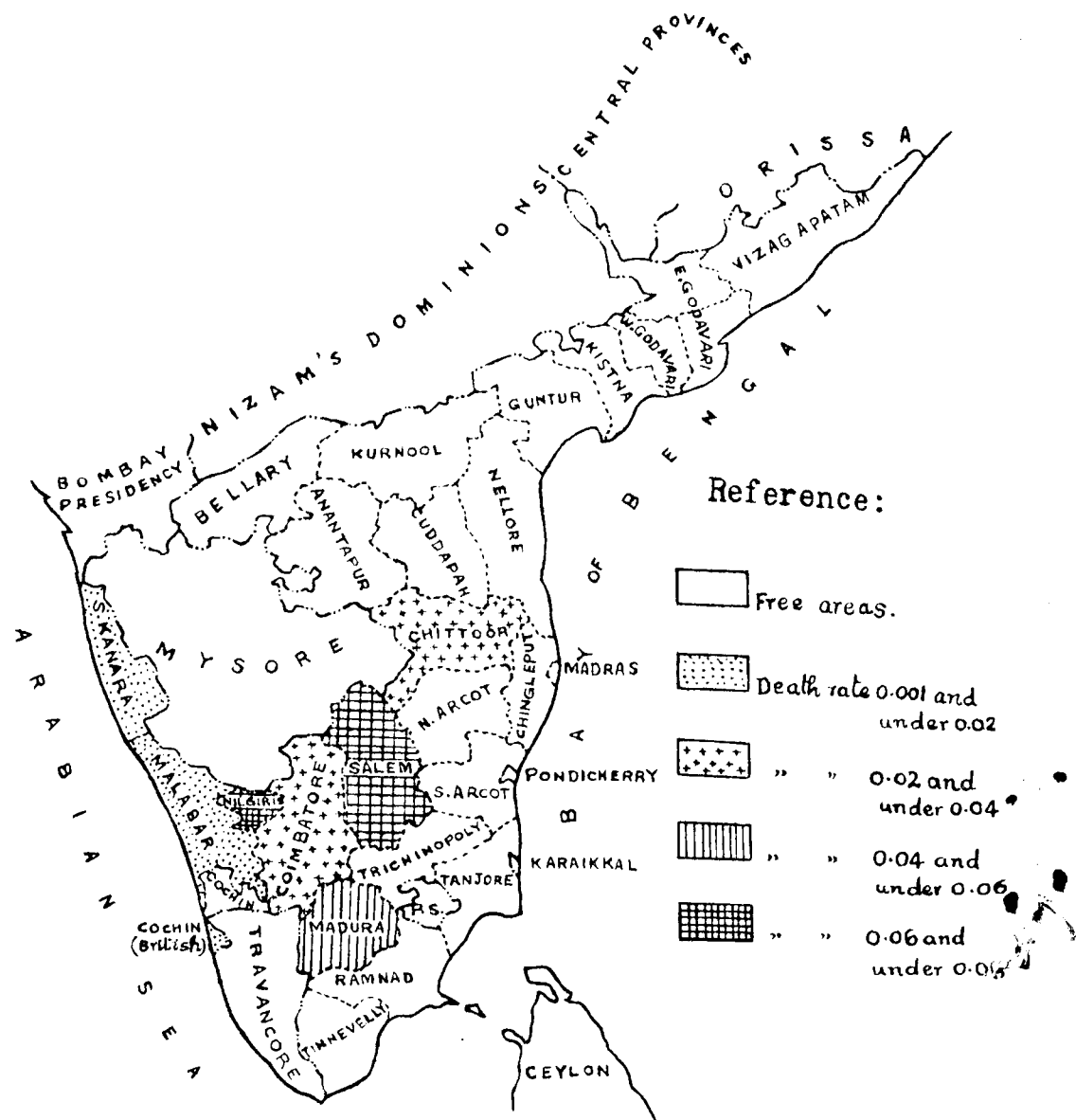
————— 1939

Map V

MADRAS PROVINCE.

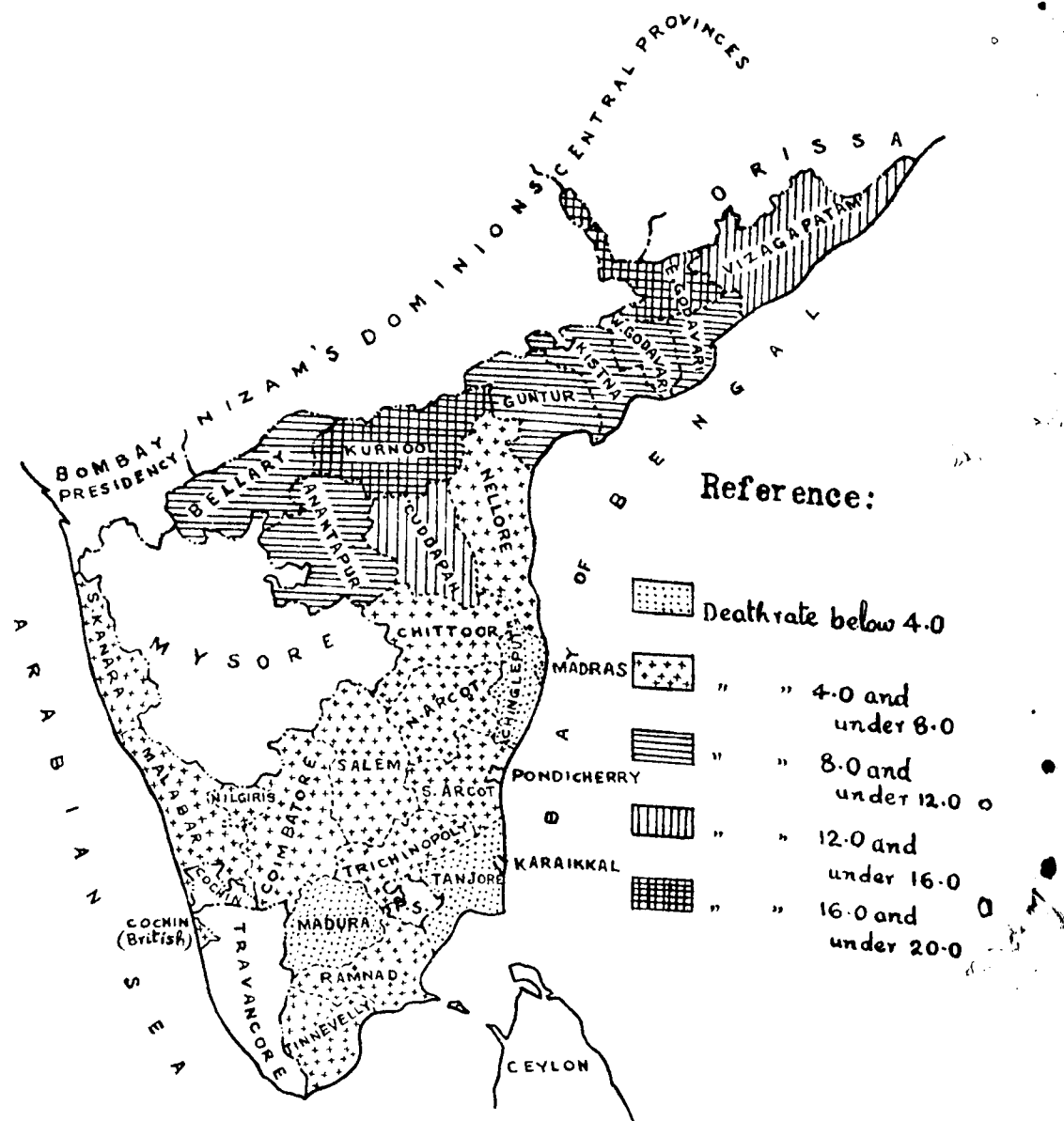
MORTALITY FROM PLAGUE.

1939.



Map VI

1939.

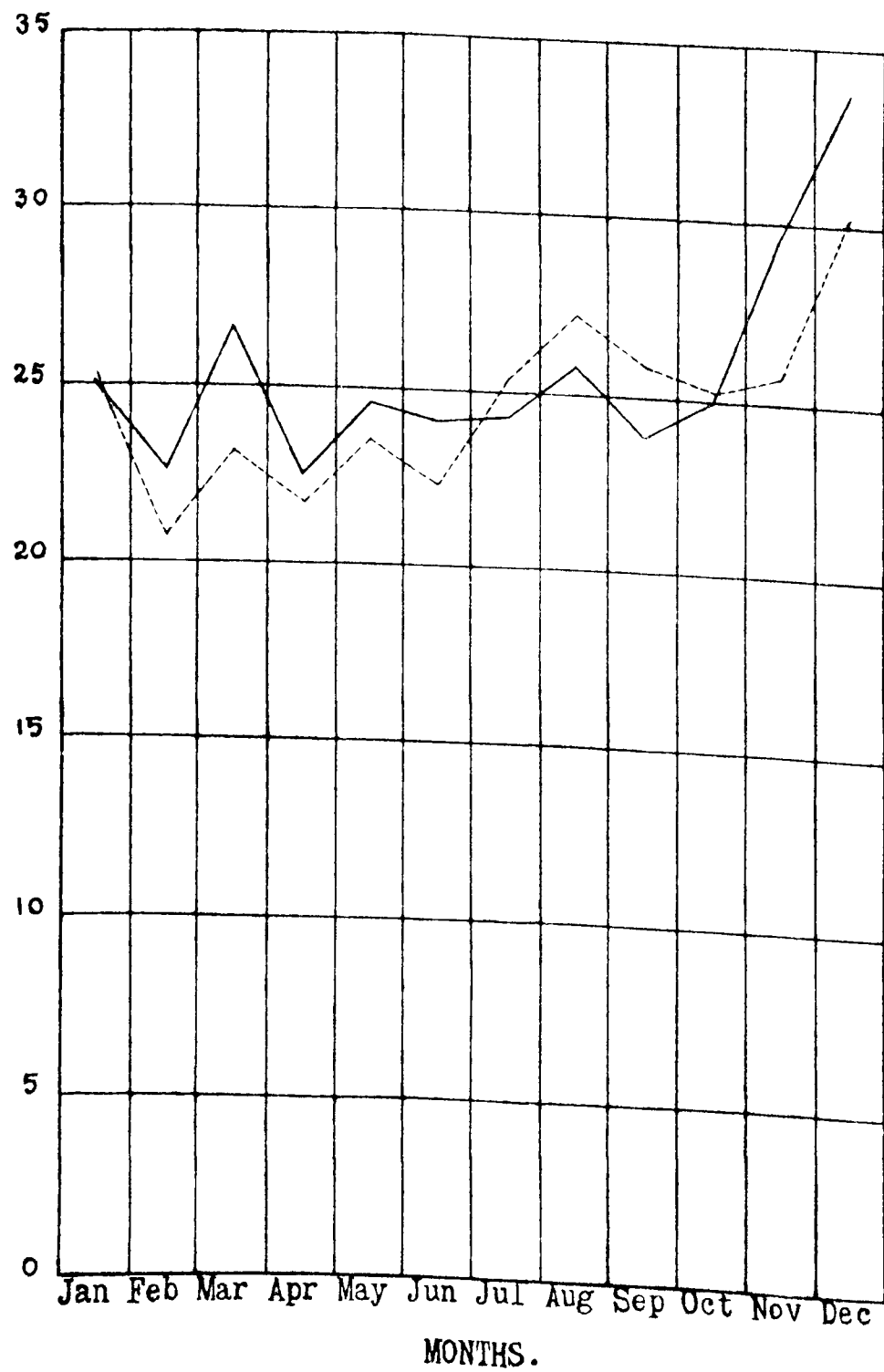


MADRAS PROVINCE.

Graph VI (b)

MEAN MONTHLY DEATHS FROM FEVERS IN 1934--38

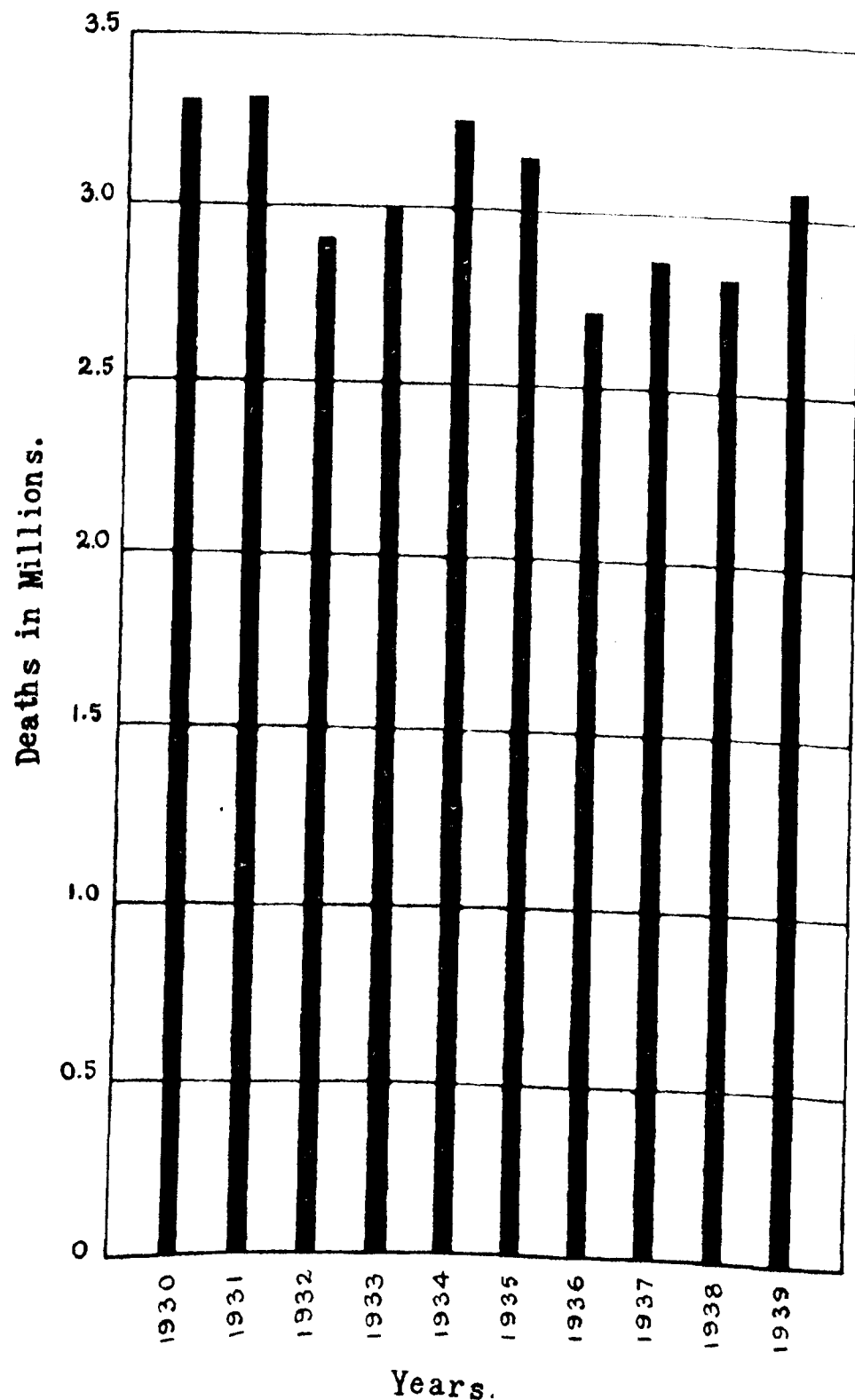
AND MONTHLY DEATHS IN 1939.



- 1934-38.

MADRAS PROVINCE.

Deaths from FEVERS during the years 1930 to 1939.



The plague deaths registered during the year is the lowest on record since 1898.

47. There were 324 deaths from plague as against 1,155 in the previous year, the mortality rates being 0.01 and 0.03 p.m. respectively. The average rate for the previous quinquennium is 0.03 per mille. As usual, the second-quarter recorded the lowest mortality. The districts of Salem, Madura, Coimbatore and Chittoor recorded 142, 95, 48 and 21 deaths respectively. The taluks in these districts that were mainly infected were Hosur and Krishnagiri in Salem district, Periyakulam taluk in Madura district, Gobichettipalayam and Kollegal taluks in Coimbatore district and in Palmaner in Chittoor district. The infection of the previous year in Salem district continued during the year in the taluks of Hosur and Krishnagiri. Bellary district which used to be affected was completely free.

Five municipalities were affected during the year recording in all only seven deaths.

The usual preventive measures such as evacuation and rat and flea destruction by cyanogas fumigation were adopted. Fifty-nine thousand seven hundred and fifty-seven inoculations against plague were performed.

48. During the year, the Government sanctioned cyanogas fumigation scheme in the districts of Bellary, Coimbatore, the Nilgiris, Salem, Madura and Anantapur and in the municipalities of Bodinayakkanur, Hospet and Vaniyambadi. The remarkable reduction in the incidence of infection generally in the Province can be said to be attributable to a large extent to this valuable measure.

The Plague research work conducted under the auspices of the Indian Research Fund Association was taken up by the Government with contributions from the Indian Research Fund Association, Government of Travancore and the Madura District Board.

FEVERS.

49. The number of deaths registered under fevers increased from 282,078 in 1938 to 307,942 in 1939 giving mortality rates of 6.43 and 7.00 per mille respectively, while the quinquennial rate was 6.66 per mille. Fevers were responsible for 28 per cent of the total number of deaths in the Province. The incidence of fever mortality reached the maximum during the last quarter. Statement IX, Appendix I, gives the number of deaths recorded under fevers and the mortality rates in each district. Fever mortality rates returned from the districts of Kurnool (17.33), East Godavari Agency (16.80), Cuddapah (15.35), Vizagapatam (12.49), Anantapur (11.90), East Godavari Plains (10.78), Guntur (10.26) and Bellary (10.22) were high. The high rates in the Ceded districts were due to the prevalence of malaria in an epidemic form. The districts that recorded low rates were Tanjore (2.25), Madura (3.41) and Chingleput (3.89).

In the municipalities 10,926 deaths were recorded under fevers giving a rate of 2.98 per mille as compared with the rate of 2.79 per mille in 1938. Fever mortality rates were high in the municipalities of Narasaraopet (10.58), Tadpatri (8.32), Peddapuram (8.25), Karur (7.35), Rajahmundry (6.78) and Guntur (6.12).

Sixteen thousand six hundred and forty-one deaths were registered under fevers in the rural towns giving a mortality rate of 6.60 per mille as against 6.04 per mille in the previous year.

DYSENTERY AND DIARRHOEA.

50. Dysentery and diarrhoea accounted for 84,906 deaths in the Province during 1939 giving a rate of 1.93 per mille as against 74,064 in 1938 giving a rate of 1.68 and the average rate of 1.96 for the previous five years. While cholera mortality has decreased during the year as compared with that of the previous year, the deaths recorded under this group has increased. Deaths from these three bowel diseases represent nearly 8 per cent of the mortality from all causes during the year. The third-quarter recorded the maximum and the first the minimum mortality from this group of causes.

The number of deaths and death-rates from dysentery and diarrhoea are given in Statement X, Appendix I. The districts that recorded high rates from these diseases were the Nilgiris (3.14), Nellore (2.64), Guntur (2.56) and West Godavari (2.52), while Tanjore district recorded the lowest rate of (0.96).

Twelve thousand nine hundred and seventy-six deaths were registered under Dysentery and diarrhoea in municipalities giving a rate of 3.54 per mille as compared with the rate of 2.88 in the previous year. The municipalities that registered high rates were Chicacole (7.72), Ongole (6.18), Tiruppur (5.76), Madras (5.60), Narasaraopet (5.58), Karaikudi (5.54), Bimilipatam (5.19), Nellore (5.06) and Vellore (5.01).

In rural towns 5,309 deaths were recorded under this group giving a rate of 2.11 per mille as against 1.98 per mile in 1938.

51. The Director of Public Health was requested by Government to investigate in collaboration with the Surgeon-General the causes of the prevalence of dysentery in an endemic form in the Penitentiary, Madras, and to report the measures necessary to improve existing conditions. A detailed report after inspection of the Penitentiary was submitted to Government with specific recommendations.

RESPIRATORY DISEASES.

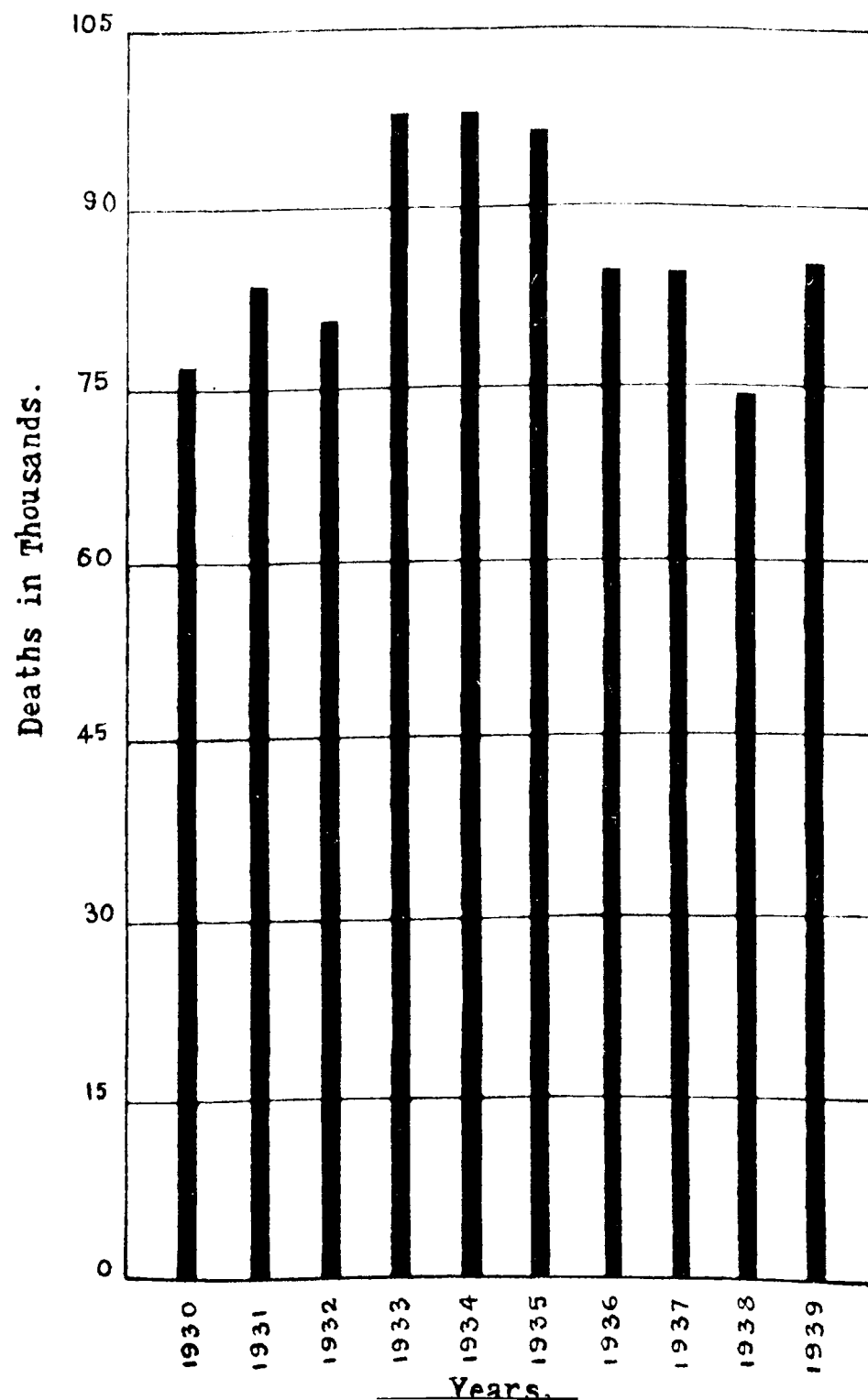
52. The mortality from respiratory diseases increased from 96,420 in 1938 to 102,130 in 1939 giving death rates of 2.19 and 2.32 per mille respectively, the average rate for the previous five years being 2.23 per mille. The death-rate from respiratory diseases in urban areas was 4.90 per mille while in rural areas it was 1.90. The high rate in urban areas is perhaps due to over-crowding and congestion. As in the last year the maximum mortality was recorded in December and the minimum in April.

The monthly mortality and the death rate from respiratory diseases in each district are given in Statement XI, Appendix I. The districts that recorded high rates were the Nilgiris (4.91), Madura (3.56), Coimbatore (3.29) and East Godavari Agency (3.17). The first three districts registered high death rates in the previous years also. Tanjore district returned the lowest rate of 1.19 per mille.

MADRAS PROVINCE. Graph VI

Deaths from DYSENTERY and DIARRHOEA.

During the years 1930 to 1939.

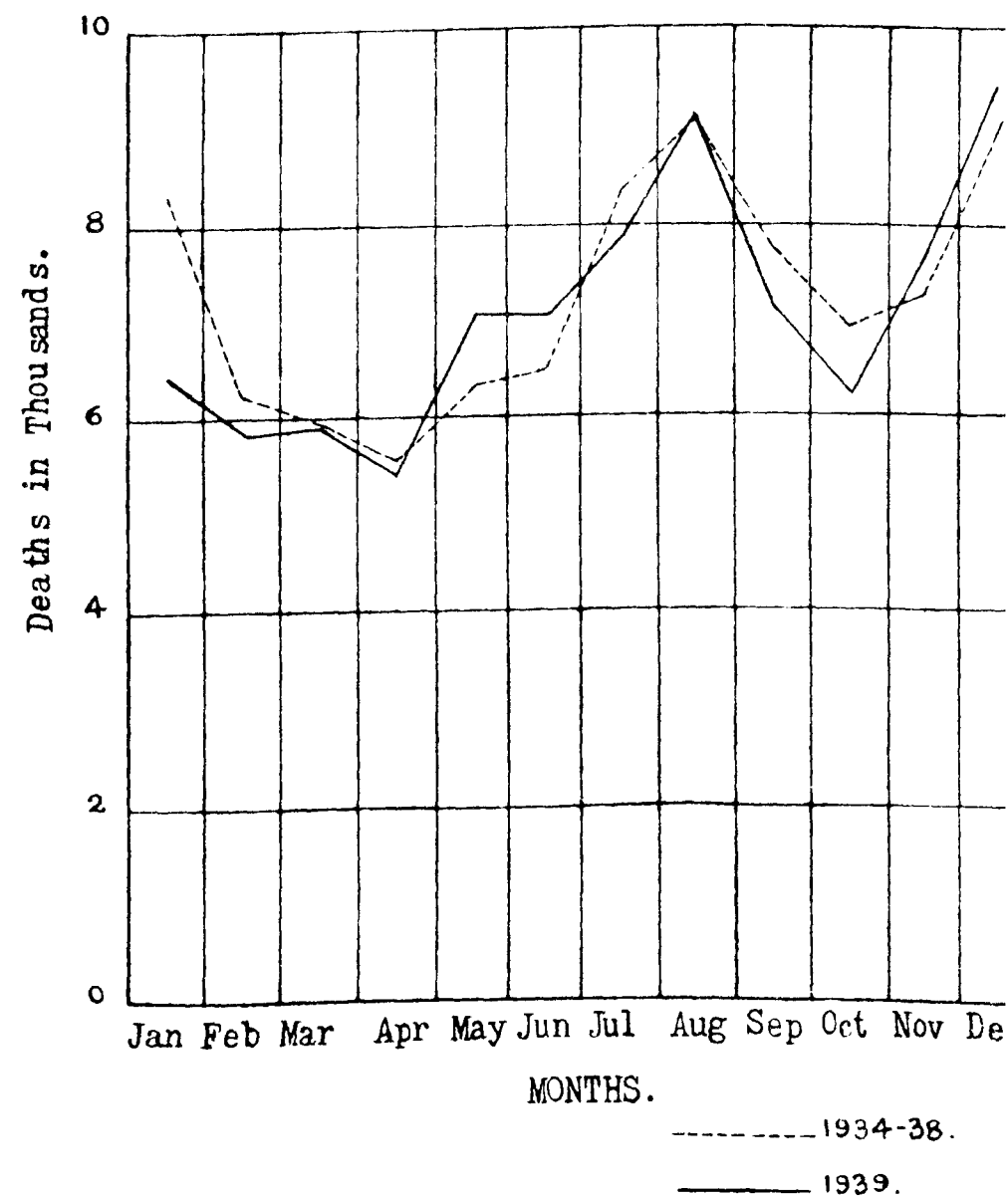


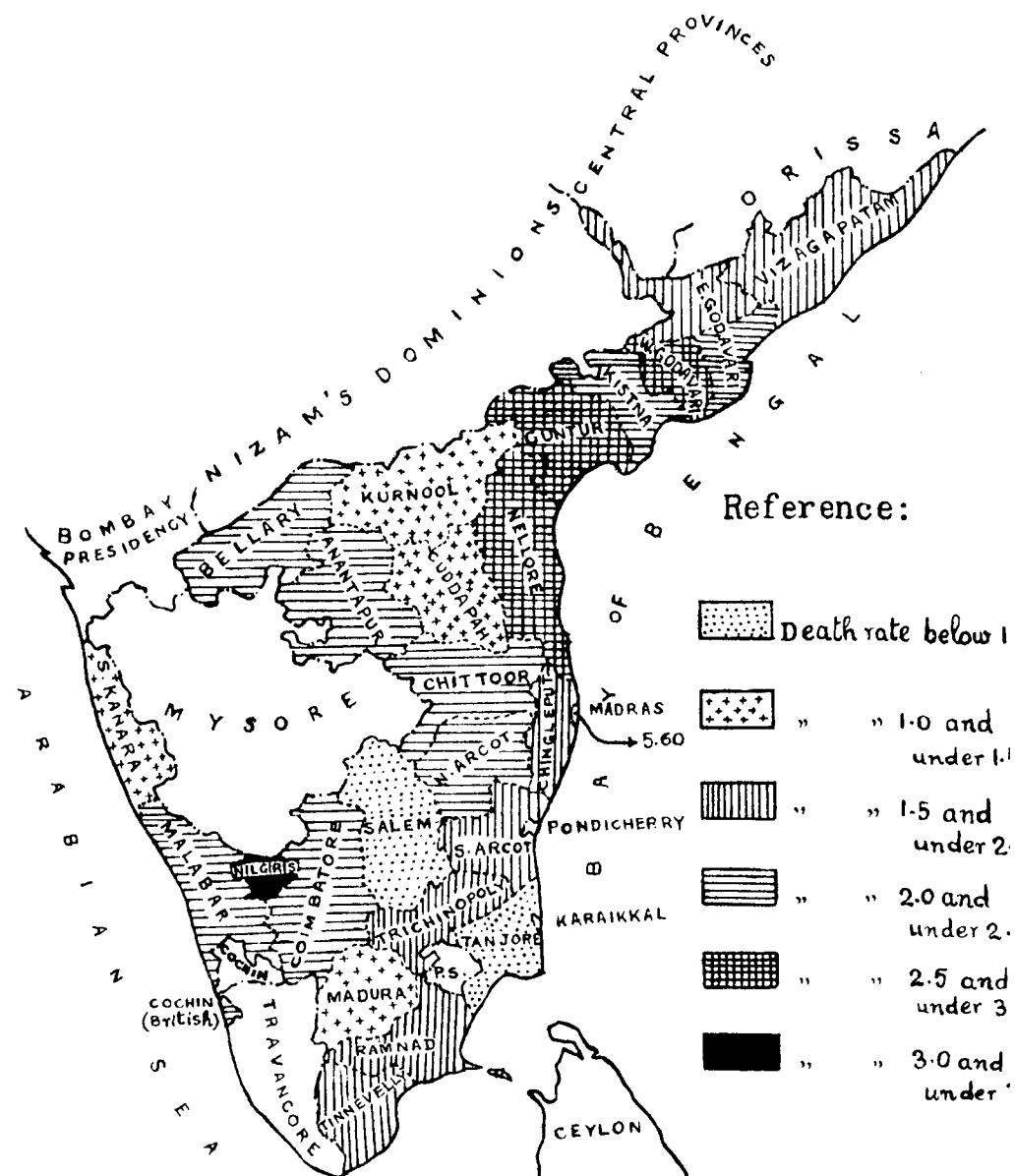
MADRAS PROVINCE.

MEAN MONTHLY DEATHS FROM DYSENTERY AND DIARRHOEA
IN 1934--38

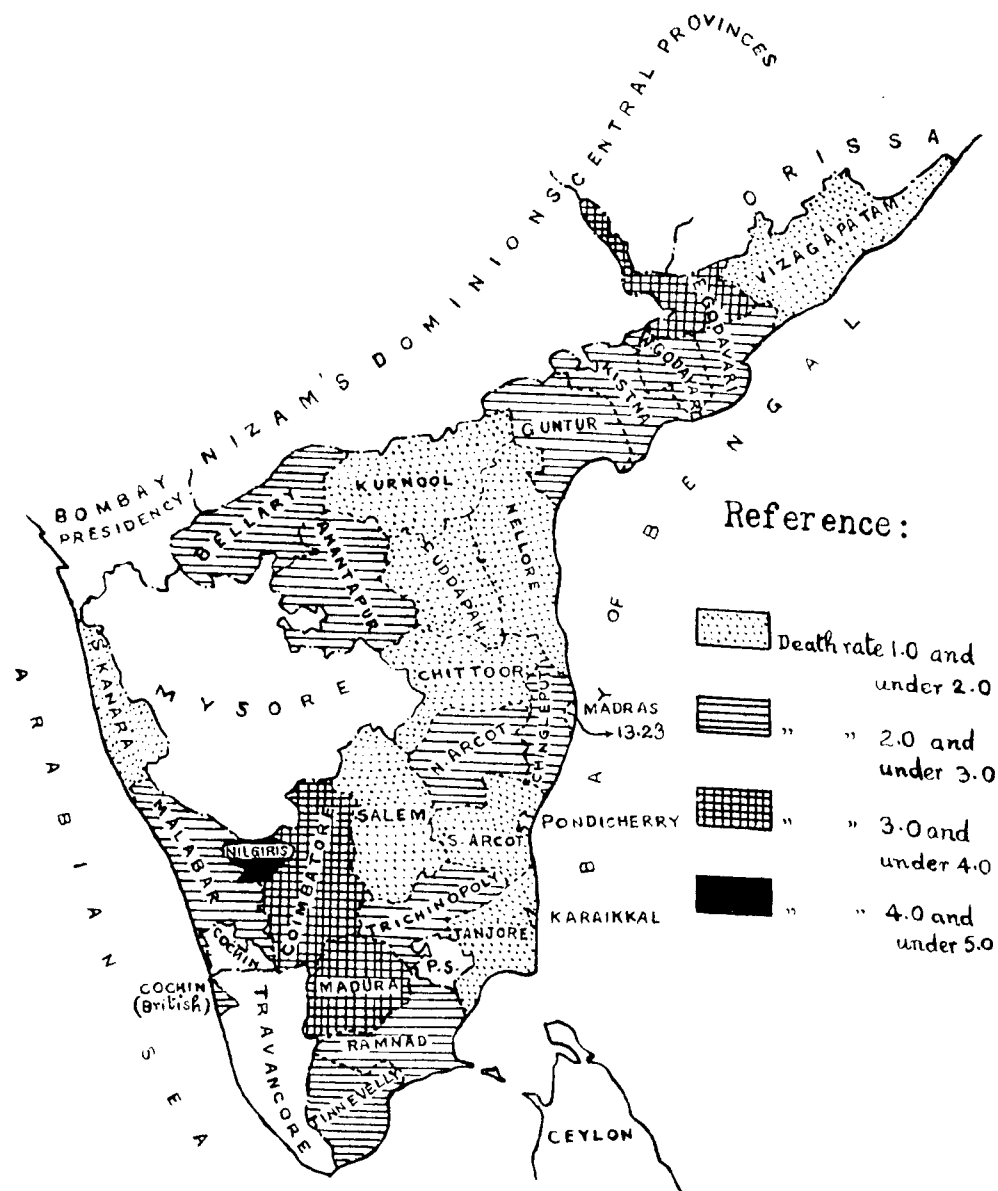
AND MONTHLY DEATHS IN 1939.

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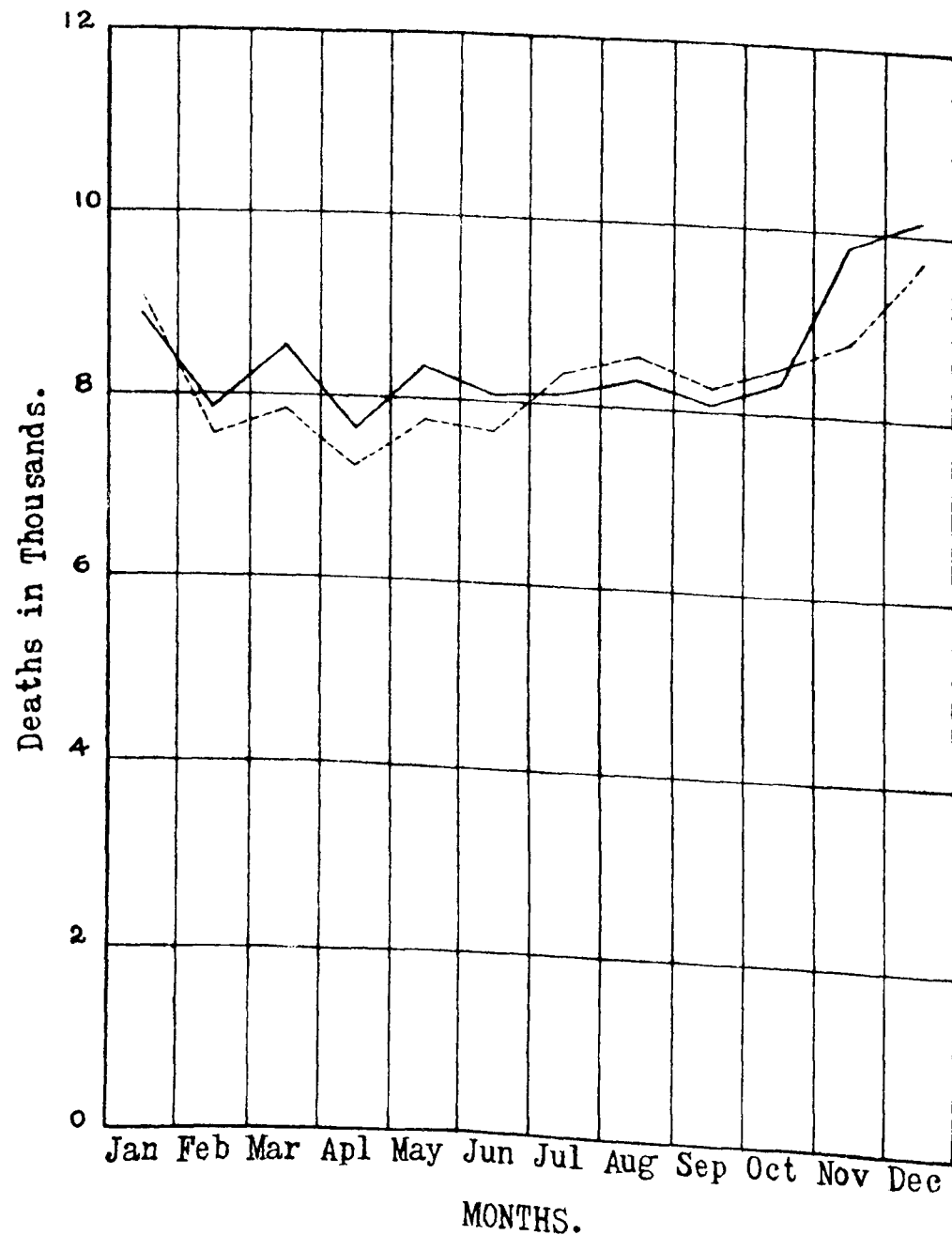
MADRAS PROVINCE.
MORTALITY FROM RESPIRATORY DISEASES.
1939.



MADRAS PROVINCE.

MEAN MONTHLY DEATHS FROM RESPIRATORY DISEASES
IN 1934--38,

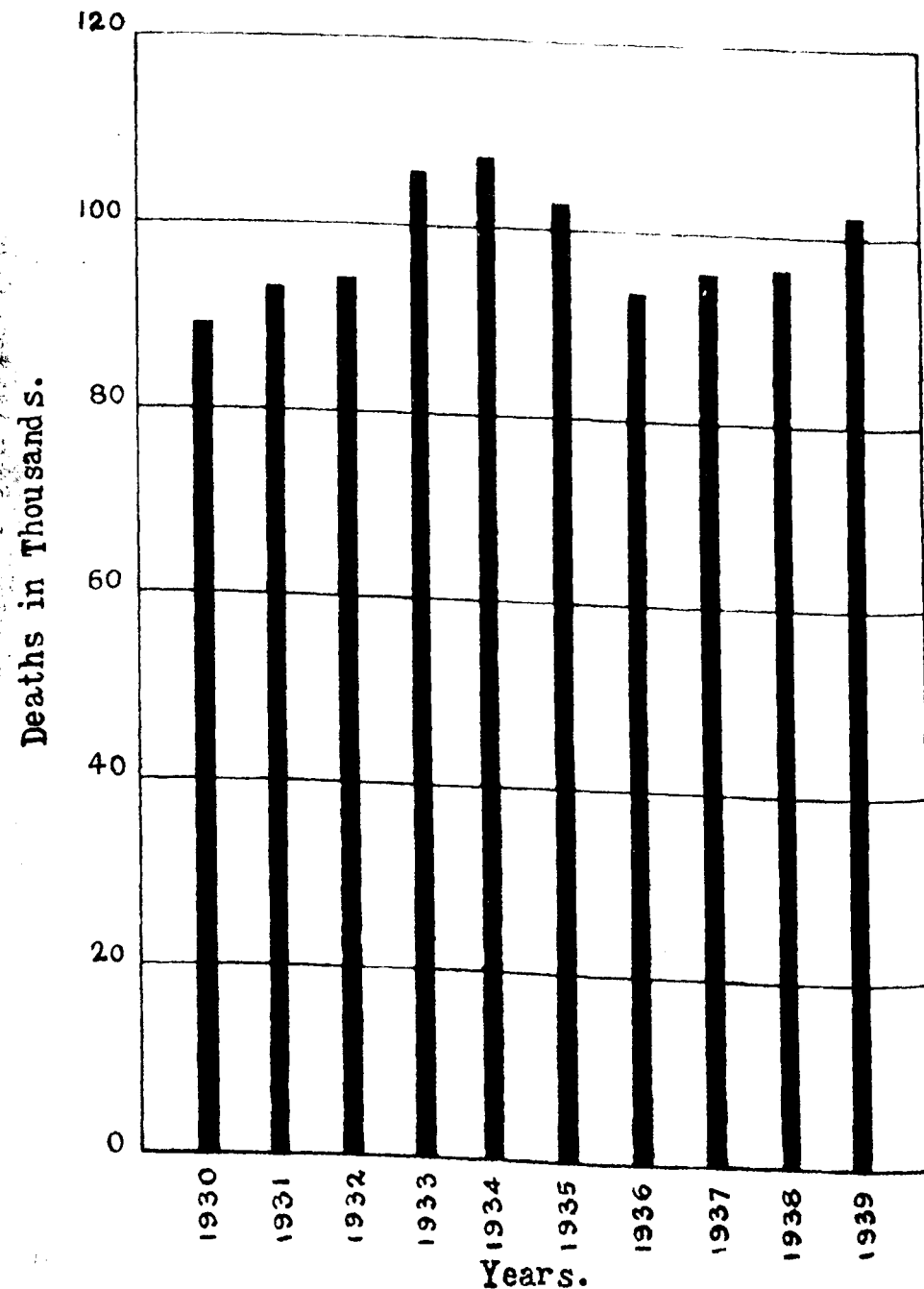
AND MONTHLY DEATHS IN 1939.



----- 1934-38.

————— 1939.

MADRAS PROVINCE.
Deaths from RESPIRATORY DISEASES.
During the years 1930 to 1939.



In municipalities 25,007 deaths were registered under respiratory diseases giving a mortality rate of 6·81 as against 6·36 per mille in the previous year. These diseases were responsible for 21 per cent of the total deaths in the municipalities indicating the highly favourable conditions for the spread of respiratory diseases in big towns. High mortality rates were recorded in Madras (13·23), Palni (12·33), Anakapalle (10·35), Ootacamund (9·14) and Bellary (8·97). The municipalities that recorded low rates were Peddapuram (1·50) and Ellore (1·90).

Five thousand three hundred and thirty-eight deaths from respiratory diseases were recorded in the rural towns giving a mortality rate of 2·12 per mille as compared with the rate of 2·00 in the previous year.

PULMONARY TUBERCULOSIS.

53. Statistics relating to pulmonary tuberculosis are available only from municipalities. During the year, there were 6,966 deaths due to pulmonary tuberculosis giving a mortality rate of 1·90 per mille. Of these 1,400 deaths or 20 per cent were registered in Madras City alone. The total mortality contributed by this disease in municipalities was 6 per cent of the deaths recorded under all causes.

RABIES.

54. The deaths from rabies numbered 1,306 during the year. Of these, 1,064 were recorded in rural areas and 242 in urban areas.

DIPHTHERIA.

55. Cases of diphtheria were reported in Salem municipality in July, 1939, and within the course of two months 13 cases were reported of which 6 proved fatal. All preventive measures were adopted and further spread of the disease was checked. Sporadic cases of diphtheria were reported from Dindigul and Vizagapatam municipalities also.

TYPHOID.

56. There was a widespread prevalence of typhoid in the City of Madras during the year. Necessary action was taken by the Corporation Health staff. Additional staff was also appointed to carry on anti-typhoid inoculation. There were 604 attacks and 187 deaths during the year 1939 and a total of 63,706 anti-typhoid inoculations were done. Cases of typhoid were also reported from several districts and municipalities of the province and the concession in regard to the supply of typhoid vaccine, issued in G.O. No. 3098, P. H., dated 31st August 1938, was availed of by the concerned local bodies.

57. Draft rules for the prevalence and control of the following diseases under the Madras Public Health Act have been forwarded to Government for approval: (1) Diphtheria, (2) Anthrax, (3) Rabies, (4) Typhoid, (5) Plague, (6) Infectious diseases—General (section 81 of Madras Public Health Act) and (7) Infectious diseases—Prevention of infection through animals.

MEASLES.

58. In November 1939, the District Health Officer of North Arcot reported an unusual outbreak of about 100 cases of dysentery in Nammi-yandal village in Chengam taluk. All these cases occurred in children under four years of age within one to four weeks of recovery from measles. The mortality rate in this dysentery epidemic was 5 to 6 per cent.

OTHER CAUSES OF DEATHS.

59. 581,123 deaths or 52 per cent of the total mortality were recorded under this broad classification during the year. No inference could be drawn from this without particulars regarding the details of the precise causes of deaths that go to form this group. In the absence of medical registrars in villages information regarding more detailed classification of causes of deaths is not possible. However, in 15 municipalities statistics regarding detailed causes of deaths according to ages were compiled and consolidated in Annexure A. It will be seen from it that only 7 per cent of total deaths were registered under this group.

RESEARCH.

PLAGUE.

60. During the year, plague experiments in the Cumbum valley were continued on the same scale as last year, by the Government of Madras, with the usual grants from the District Board of Madras, good the reduced grants from the Indian Research Fund Association and Travancore Government.

Cyanogas fumigation in villages.—This was continued on an altered plan. Villages were grouped for refumigation every quarter, half-year or those which had to be taken up at once owing to onset of actual plague. The idea was to keep down the rats in anticipation of infection and should plague appear even after that, the incidence would be low. The results of a round of trials on this basis have been extremely promising. Plague incidence was the lowest and its free season the widest, since its first invasion of the Cumbum valley in 1920. Of the 203 attacks and 94 deaths during the year, over 91 per cent of both occurred during the first quarter alone, the rest of the year reporting only sporadic cases in a south-western sector of the valley. During the month of March, there was a limited outbreak of pneumonic plague with 12 attacks and 12 deaths in Ponnampatti, hamlet of Vallanadhi village, all among the immediate contacts of a septicæmic case imported from Thevaram village.

The research units confined fumigation work to 10 villages around Cumbum, and of these 1 was fumigated thrice, 5 twice and 4 once, 174,179 rat holes and 646 cracks in man or rodents after fumigation. area were fumigated. 3,270 house-rats, 189 bandicoots, 10,967 house-mice, 5 snakes and 46 musk rats were obtained during these operations.

In all 12,616 rodents obtained during fumigation or trapping operations, were examined for plague in the laboratory but only 4 proved positive. One hundred and nineteen carcasses of rodents, including 13 squirrels, suspected of plague were also examined and in 57 including 8 squirrels, plague infection was proved.

Trapping versus cyanogas fumigation.—In three villages only systematic rat trapping, once every quarter, is being done so as to compare the results and cost with those where only cyanogas fumigation is being tried. Results will be reported as soon as the experiment is completed.

Rats in thatched roofs.—Attempts were made in 400 thatch-roofed houses to trap the rats nesting in the roofs, after first estimating the infestation in the floors and walls by cyanogas fumigation of the burrows, cracks, etc. It was found that for every rat which was trapped, about six had been killed during the preliminary fumigation. For a more direct approximation another batch of 64 houses was totally cyanogased for the sake of the roofs, after a preliminary fumigation as stated above. Seventy-two rats were so recovered from the roofs, against 55 obtained from other sources during the first fumigation. It is therefore emphasized that disinfection measures, specially of infected houses, cannot be said to be thorough unless due attention is paid to the roofs.

Study of fleas.—During the last two years, over 2,800 adult fleas and 17,400 of their first filial generation, from 127 rat nests, have been studied under varying factors of climate, habitat, rodent host and nesting materials. Another equally important problem studied on the bionomics of fleas was to determine the proportion of fleas found at any time on the body of a rodent to those in the rat's nest. So far about 2,700 fleas, from 170 gerbills and 57 of their young ones and 64 of their nests, have been examined for this purpose. While the adult rodents were found to have only 10.5 fleas each, each nest had 14 loose fleas. These studies are as yet incomplete, but are being continued, as more information on the bionomics of fleas in nature is fundamentally important in the study of plague and plague control measures.

Study of sylvatic plague.—During the year an investigation of plague in the Nilgiris was undertaken. The susceptibility to plague of the prevailing wild rodents was either determined or indicated. The presence of plague among these wild rodents or their fleas-sylvatic plague was not proved during the enquiry, though contributory features have been pointed out.

The endemic plague of the district is kept smouldering through the seasons by the team work of a variety of efficient plague fleas which prevail on the domestic, semidomestic and field species of rodent in the area. That *Stivalius* and *Certophyllus* species of fleas predominating on the field rodents, are comparatively good vectors of plague, was demonstrated by actual transmission experiments. The need to keep the potatoe fields from their present field rodent menace has been emphasized as a necessary precautionary measure against the possible extension of plague from house-rats to field-rats.

Model rat-proof dwelling house.—Observations on the efficiency of the rat-proof devices employed in the construction of the experimental house

mentioned in the previous year's report were completed. Designs of this model house were submitted at the last Medical Research Workers' Conference in Delhi and were approved by them. These designs have since been referred to the Superintending Engineer, Public Health.

Treatment of plague cases.—A scheme was sanctioned by Government in G.O. Ms. No. 2204, P.H., dated 20th June 1939 for hospitalization and treatment of plague cases. This work could not be taken up during the year owing to the absence of plague cases in the area.

FILARIASIS.

61. Various divisions of Madras City and environs were taken up one after the other for determining the infection rats among the mosquito vector—*C. fatigans*. So far Theagaroyanagar, Teynampet, Thousand Lights, Triplicane, Mount Road, Royapetta, Mylapore, Chepauk, Egmore, Perambur and Sembien Panchayat area, have been completed. The infection rate in the mosquito appears to be correlated to the proportion of human population with micro-filaria in their blood and who form the reservoirs of filarial infection. The rates based on mosquito infection should therefore give an accurate enough index for preventive purposes. People suffering from chronic sights of filariasis show few purposes as for other considerations of morbidity. Out of the 3,180 *Culex* mosquitoes dissected, 16.9 were found infected with some stage or other of filarial larvæ (*F. bancrofti*) and 3.1 per cent of these had their fully developed infective stages in the head or proboscis. When work in the remaining divisions of the city are also completed, it will be possible to analyse the whole data and mark out areas according to their degrees of filarial infection.

During the year a complete filariasis survey of Nayudupet in Nellore district was also carried out at the instance of the Inspector of Local Boards and Municipal Councils.

GUINEAWORM.

62. A scheme for investigation and control of guineaworm disease (dracontiasis) by the biological method has been sanctioned by Government. The method is on the line successfully demonstrated in the Chitaldrug district of the Mysore State. Certain small species of fish have been found to be efficient cyclopæcides. In Mysore the species of fish adopted are *Barbus puckelli* (*dorsalis*), *Barbus ticto*, *B. Sophore*, *Rasbora doniconius*, *Lepidocythys thermalis*, and *Gambusia*. Any of these fish or others found to be efficient consumers of cyclops, indigenous to each area are proposed to be utilized for this purpose, in a combination of, surface, column and bottom feeders. It has been found that most of these listed fish prevail naturally in and around Madras, in certain tanks and lakes. A few nurseries of these fish have already been started in Guindy, Alandur and Chetput. The district boards of Nellore, West Godavari and Bellary have agreed to start the work in their infected areas and others are expected to follow during the coming year.

During the year, an unusual incidence of guineaworm disease with 27 cases in a labour colony of 127 people, occurred in the Old Mambalam area of Saidapet where the only sources of drinking water are three well constructed draw wells. This incidence was investigated from several aspects. It is emphasised that as draw wells also contain cyclops, unless special precautions are taken to avoid their contamination, they may become sources of guineaworm disease just as the usually incriminated step wells.

LEPROSY.

63. Government having approved the proposal that specialised investigation of the problems connected with leprosy and the direction of specialised clinics should be under the direct control of the Provincial Branch of the British Empire Leprosy Relief Association, these two phases of activity were entrusted to the Provincial Branch, the headquarters of which were transferred to the Lady Willingdon Leprosy Settlement near Chingleput. Routine treatments of leprosy cases were carried out in clinics and medical institutions under the general supervision and control of the respective District Medical Officers.

The special work done during the year in connection with leprosy work comprised (a) investigation of child leprosy at Saidapet, (b) rural and urban investigation units, (c) investigations in Lady Willingdon Leprosy Settlement and (d) child segregation schemes.

Besides the above, the following training classes were conducted during the year; three for Medical Officers of Health, two for 21 doctors and one nursing sister. These courses are becoming better known and doctors from other parts of India are coming for training.

64. The work in Saidapet clinic includes within its scope the investigation of the factors contributing to the development of the different types of child leprosy with special reference to the severe types of infection and of the factors associated with the spread of infection. The activity of the rural investigation unit is concerned chiefly with intensive survey in the villages in the unit area, and investigation into economical and effective methods of control. The establishment of a segregation unit serving a group of villages is also an item of activity of the unit. As regards urban investigation unit, the organization has recently been completed; preliminary surveys have been carried out and the work has commenced.

The investigations at Lady Willingdon Leper Settlement include clinical studies, dietetic and therapeutic experiments and laboratory work.

A child segregation scheme as an experiment is to be started in Salem shortly.

MALARIA CONTROL.

65. Anti-malarial measures in Krishnadevipeta (Vizagapatam Agency) were continued with satisfactory results. Out of the four villages near Krishnadevipeta which were under investigation for the purpose of

formulating a general scheme of malaria control, in the case of Saravana-palem it has been considered that a system of flushing the streams round about the village by means of sluices will be an useful measure. But till finances are available for such a measure, temporary control by treatment with paris green is being carried on.

In July 1939, a mosquito collector was sanctioned for carrying out some preliminary observations in Baruva in the Uddanam area of Vizagapatam district. An extremely useful and important investigation was carried out with the result that the notorious career of malaria, *A. sundaicus*, was discovered for the first time in Madras Province, in Baruva. The study is proposed to be intensively pursued in 1940-41. The discovery of this mosquito has an important bearing on the coastal malaria of the Province.

The question of increasing the anti-malarial staff in the Papanasam Hydro-Electric Project scheme is under consideration.

The usual routine of weeding irrigation channels in Siruguppa (Bellary) was carried on. It is considered that the menial staff employed for this work may be kept under the supervision and control of the Health Inspector, Siruguppa and the Collector has been accordingly addressed.

The approved scheme of anti-malarial works was carried out in Hospet Municipality and the results were satisfactory. It is hoped that the Council will find funds to continue the useful work hitherto carried out.

The anti-malarial works carried out from the Government of India grant in 1935-36 were maintained in Rameswaram (Ramanad) and Nellore district.

Routine anti-malarial measures were carried out in Vizagapatam Municipality, Rameswaram Island and in Vriddhachalam (South Arcot). Anti-malarial measures carried out in Kodur and Kothakodur villages of Nellore district were continued.

66. Experimental anti-malarial measures were carried out at Pattukkottai (Tanjore district) Sultan's Battery, Kalpetta and Meppadi in Wynaad taluk of Malabar district and in Kathivakkam (Ennore) of Chingleput district according to the scheme under the combined grant from the Indian Research Fund Association and the Government of Madras.

Pattukkottai.—Water-tight calco gates for irrigation channels in Pattukkottai were installed during the year. Progressive use of these gates will also be made for the purpose of control of water in paddy irrigation fields and for prevention of waste of water. The Public Works Department continued to fill up the further burrow pits and the work is very much appreciated. Further improvement in the work of filling up of burrow pits by the Public Health Department was also effected. The demonstration carried out in the previous year by properly re-aligning the irregular and badly aligned irrigation channels having proved satisfactory, further areas were improved on the same principle of extending the work of water-tidiness to the whole place. It is hoped that this work of re-alignment in all the areas will be completed by the end of June 1940.

The construction of the central fish nursery was completed during the year, but since it was not found sufficient, another natural nursery

has been planned. The scheme for controlling nuisance mosquitoes is also carried on with satisfactory results.

Wynaad.—In Sultan's Battery, Kalpetta and Meppadi, different experiments for controlling the breeding of *A. fluviatilis* were carried out, chief of them being shading and planting of suitable plants in the course of the water channels and herbage packing. Herbage packing was considered to be not satisfactory and therefore it has been proposed to give it up. Shade trees will take some more time to yield results and therefore this experiment is being continued. Sluicing at intervals of the water courses will be another method of control that will be considered in the future.

Ennore.—Owing to the difficulty of control of breeding of *A. culicifacies* in Casuarina pits by the introduction of fish in them the method had to be given up. Temporary control was established by treatment of the casuarina pits with Pyrocid 20. There has been a considerable reduction in the spleen rate in the area under control. Experiments with covered ring wells in the place of casuarina pits are proposed to be tried.

An unusual epidemic of malaria broke out in Narasaraopet Municipality (Guntur) in July 1939. The Malaria Officer visited the town and minor anti-malarial measures, such as oiling of wells, etc., were immediately started and the epidemic was controlled.

67. *Quinine distribution.*—During the year, the scheme of free distribution of quinine was extended to Ernad and Walluvanad taluks in Malabar district. In the last quarter of the year there was a general wide spread epidemic of Malaria almost throughout the Ceded districts. The scheme of free distribution of quinine was extended to large areas in these districts. A quantity of about 2,000 lb. of quinine has been distributed free during the year and about 190,000 persons have actually received the treatment among a population of two millions benefited by the scheme. Putting up ten-tablet treatments for sale has been adopted during the year throughout the Province and it is hoped that the public will avail themselves of the treatment with quinine more fully.

Schemes of anti-mosquito campaigns were organized in several municipal towns and panchayats, and the results continue to be satisfactory.

FAIRS AND FESTIVALS.

68 There were 897 festivals during the year of which 570 were major and 327 minor. Eighty-nine festivals were celebrated in municipal areas and the rest in rural areas. The local bodies concerned undertook the responsibility for the sanitary arrangements which were carried out under the control and supervision of the respective health staff. In municipalities without Health Officers, District Health Officers were consulted in respect of festival sanitary arrangements as usual. The arrangements were financed by local bodies out of their general revenues and by contributions received from temple trustees. In the case of cattle fairs, the local bodies concerned had a substantial income from the fairs. In the case of festivals, the income was negligible, except in those

instances where pilgrim-tax was levied. Now that rules have been framed under sections 117 and 118 of the Madras Public Health Act for levy of tax and tolls on men and vehicles, the local bodies in case of notified festivals can have sufficient income to meet expenditure in connection with permanent sanitary arrangements, etc. In about 118 cases roughly, local bodies received contributions from the temple authorities concerned towards the cost of festival sanitary arrangements. In a few instances, local bodies did not carry out in full the recommendations made by the Health Department, on the usual plea of financial difficulties. The importance of attending to the sanitary needs of such gatherings has been stressed on these local bodies and they are being persuaded to sanction the recommendations in full. In one or two instances delay in sanction handicapped the health staff in carrying out the arrangements in time. Now that the Public Health Act has been introduced, most of these defects will be rectified.

69. The following festivals were notified under section 116 (1) of the Madras Public Health Act, 1939: (1) Cattle fair at Samayapuram, Lalgudi taluk in Trichinopoly district, (2) Vaikunta Ekadasi in Srirangam Municipality, Trichinopoly district, (3) Karthigai Deepam in Tiruvannamalai Municipality, North Arcot district, (4) Arudra Darsanam in Chidambaram Municipality, South Arcot district.

All these festivals have been conducted successfully and what is more important was the entire absence of cholera in any of the festivals. The provisions of Chapter XIII of the Act are reported to have worked satisfactorily. The Municipal Health Officer, Chidambaram, recommended the opening of Special Courts during Christmas for enquiring into the cases under Public Health Act that may be launched during the Arudra festival. The Collector was also agreeable to the suggestion. The Government have been addressed to sanction the creation of Special Courts.

It is gratifying to record that there was the closest co-operation between the Police, the Railway authorities and the health staff in all festivals. In almost all major festivals the services of scouts and other volunteers were fully utilized by the health staff in the control of sanitary arrangements.

Rules have been framed by Government under sections 118, 122, 122 (1) (b), 124 (1), 125 and 120 of the Madras Public Health Act.

RURAL SANITATION CAMPAIGN.

70. As in the previous years, the activities of the rural sanitation campaign were directed mainly towards the prevention of soil pollution and control of hookworm infection. There are six rural sanitation units, four permanent and two temporary. The rural sanitation unit in Tanjore district was transferred to Trichinopoly district in September 1939. The unit in Malabar district was retained in that district for a further period of one year from 1st April 1939. At the end of the year, the six rural sanitation units were working in the districts of Trichinopoly, Malabar, Kurnool, Nellore, the Nilgiris and Guntur.

71. The activities of the rural sanitation units during the year under report were (1) Hookworm survey, (2) Educational propaganda on hookworm disease and dangers of soil pollution, (3) Mass treatment against hookworm and (4) Construction of latrines in rural areas.

Routine examinations of faecal specimens by the rural sanitation units were continued during the year. 10,495 specimens were examined. 3,564 specimens were positive to hookworm, giving an infection rate of 33.9 per cent. Details of work done by each unit under this item of work are given below:—

Names of districts.			Number examined.	Positive.	Percentage.
1. Kurnool	..	..	1,833	320	17.4
2. Guntur	..	..	1,657	280	16.9
3. Tanjore	..	..	1,222	716	58.5
4. Trichinopoly	..	..	596	243	40.8
5. The Nilgiris	..	..	1,590	723	45.5
6. Nellore	..	..	1,896	305	16.1
7. Malabar	..	..	1,701	977	57.0
Total			10,495	3,564	33.9

Propaganda.—In the course of their propaganda work, 85 cinema shows, 961 magic lantern demonstrations, 1,652 talks on hookworm were conducted by the rural sanitation unit staff. The total audience that attended these shows and lectures is approximately three lakhs. About 39,000 pamphlets were distributed.

All the rural sanitation units except the one in Kurnool have been equipped with portable cinema and films on popular health subjects. The portable cinema equipment available in the rural sanitation section was lent to one municipality. The rural sanitation units took part in the health and exhibitions conducted in conjunction with the Health Week or Khadi and Swadesi Exhibitions in districts where they were stationed by exhibition of borers, model borehole latrines, posters, magic lantern demonstrations and cinema shows.

Mass treatment.—205,444 treatments were given, of which 54,133 treatments were given by the rural sanitation units and the rest by the medical officers in charge of hospitals and dispensaries.

Provision of latrines.—Seven hundred and twenty-three latrine seats were put up and 146 seats were either repaired or reconstructed. This includes 658 private latrines constructed as a result of propaganda by the units. Most of this work was done in the districts of Kurnool, the Nilgiris, Guntur, Nellore and Malabar. The local bodies in these districts co-operated with the units in providing necessary funds.

72. The ultimate success of soil sanitation work in any area depends upon the extent to which the construction and use of private latrines are encouraged. The units therefore endeavoured their best by intensive propaganda in introducing borehole latrines as private latrines in as large a number as possible. Squatting slabs for borehole latrines were given either at half-cost or at concession rates by the concerned local authorities in the districts of the Nilgiris, Guntur, Malabar, Nellore and Kurnool.

As many as 658 private latrines were constructed in these districts by the rural sanitation units.

The District Boards of Nellore, Guntur, Malabar and Kurnool, appointed soil sanitation maistris to assist the units in the construction of public and private latrines.

73. In accordance with G.O. No. 765, Public Health, dated 1st June 1922, Hookworm reports were received from all the local bodies. These reports show that 147,940 treatments, 10,341 lectures, 3,367 magic lantern demonstrations, 157 cinema shows and 355 exhibitions to a total audience of about 15 lakhs were conducted. 1,070 public latrine seats and 19,367 private latrine seats were constructed and 1,246 public latrine seats were either repaired or reconstructed during the year. The amount allotted by all the local bodies for soil sanitation is Rs. 1,03,605-12-0. The local bodies in the districts of Anantapur, Coimbatore, East Godavari, West Godavari, Kistna, Cuddapah, North Arcot and Tinnevely evinced interest in pushing on soil sanitation work.

HEALTH PROPAGANDA.

74. Health education, one of the routine duties of the staff of the Public Health department was conducted throughout the whole year. Lectures with cinema shows wherever possible or with magic lantern slides, short talks to groups of individuals, illustrated posters, leaflets, were all utilized by the department for the purpose.

One hundred and sixteen leaflets and 24 posters on different subjects have so far been issued. During the year, book-marks, health maxims and five leaflets on various subjects were issued.

Such of the leaflets and posters that were out of stock and which were greatly in demand were reprinted during the year. The number of copies printed are shown below:—

A.—Leaflets.

Language.					Number of kind of leaflets and pamphlets reprinted.	Total number of copies printed.
1. English	..	..	..	..	6	25,000
2. Tamil	..	..	..	..	51	446,000
3. Telugu	..	..	..	..	36	510,000
4. Kanarese	..	..	..	..	7	27,000
5. Malayalam	..	..	..	..	11	55,000

B.—Posters.

1. Tamil	..	..	..	..	1	2,500
2. Telugu	..	..	..	..	1	2,000

520,713 leaflets and pamphlets and 42,520 posters on various subjects and in the languages noted below were issued for sale from the Propaganda section of this office.

Language.	Leaflets.	Posters.
English	72,989	10,168
Tamil	244,105	16,947
Telugu	165,419	12,543
Kanarese	12,500	2,195
Malayalam	25,700	667

In addition to the above, the following number of book-marks and health maxims were also issued:—

Health maxims	300 sets.
Book-marks	41,552

The set of magic lantern slides on malaria was revised. As there was a heavy demand from the local bodies for magic lantern slides on Rural Reconstruction, two additional sets were purchased.

There are at present cinema films on 20 different subjects in the film circulating library of the Health Propaganda section. The total number of copies available in all the subjects is 31. During the year under report, 3 copies of films were purchased and added to the film circulating library. A film on the sanitary arrangements made during fairs and festivals and plague preventive measures was produced departmentally.

Copies of films as per details given below were printed from the negatives stocked in the Health Propaganda section and sold to local bodies realizing a royalty of Rs. 641-2-0.

Saving of the Race—One copy.

Unhooking the Hookworm—Five copies.

Models available in the Health Propaganda Section were loaned to one voluntary association and four local bodies.

The National Health and Baby Week was celebrated during the year in many important towns and villages in the province. A report on these celebrations will be sent separately.

75. Consequent on the introduction of the Madras Public Health Act, 1939, intensive propaganda on the salient features of the Public Health Act was done by the health staff. This was supplemented by the local voluntary agencies. The first of November 1939 was observed as a Public Health Act Day throughout the province when intensive propaganda was done. The Director of Public Health broadcast a talk on the Public Health Act from the Broadcasting station of the All-India Radio at Madras. Copies of the talk were printed in all the languages and distributed throughout the province. Copies of Government Communique No. 19, dated 17th March 1939 on the salient features of the Public Health Act were distributed widely in all the languages of the province. In addition to the above, many of the local bodies printed their own hand-bills, pamphlets and booklets on Public Health Act for distribution in their local areas. Village or Ward committees were formed in many centres for conducting propaganda throughout the year.

76. The Public Health Department participated in the broadcasting programmes of the All-India Radio at Madras and Trichinopoly by contributing (1) short talks of ten minutes duration on public health subjects; (2) broadcasting public health conditions of the presidency every week; (3) the conditions of public health at places where important fairs and festivals were held, so as to warn intending pilgrims about the prevalence of any epidemic. During the year 1939, 94 talks on public health subjects (from all sources) were broadcast through the All-India Radio, Madras and Trichinopoly.

Weekly bulletins on the public health conditions of the presidency were regularly published in the daily local newspapers and special prominence was given to the conditions of public health at places where important festivals were held so as to warn intending pilgrims about the prevalence of any epidemic.

The statement below shows the various activities under "Propaganda" during the year:—

1. Lectures with magic lantern demonstrations ..	30,896
2. Ordinary lectures	29,749
3. Short talks	146,188
4. Cinema shows	1,739
5. Health dramas	3,114
6. Health exhibitions	1,902

It is estimated that a total audience of ten millions attended these functions.

77. The health propaganda work in municipal towns shows a general improvement when compared with the previous years. It has however to be remarked that the outturn of propaganda work (particularly under magic lantern lectures) in the municipalities of Chicacole, Calicut, Mangalore, Hindupur, Narasaraopet, Peddapuram, Anantapur, Tadpatri, Villupuram and Walajahpet is poor. It is hoped that these municipalities will realise the importance of constant propaganda on public health matters and pay greater attention in future to this branch of public health work. The District Boards of Cuddapah, Chittoor, Coimbatore, Guntur, Godavari East and Tanjore continued to use mobile propaganda units equipped with cinema machines, magic lanterns, etc. Ballad singers for health propaganda work were continued to be employed in Kistna district. They gave 102 performances.

78. *Prohibition*.—During the last two years, prohibition has been introduced in the districts of Salem, Chittoor and Cuddapah. In addition to the above, it was extended to the district of North Arcot during the year. Investigation is being carried on in all the areas where prohibition has been introduced to watch the effects of the new prohibition policy on the social, economic and health condition of the addicts.

79. The financial statement required in G.O. Ms. No. 748, Public Health, dated 20th March 1939, is furnished in the Annexure C.

POONAMALLEE HEALTH UNIT.

80. The health unit scheme financed partly from the Government of India grant for Rural Development and partly by the Rockefeller Foundation of America has been doing useful work. An encouraging feature is that the local people have begun to take a lively interest in the work of the unit and are clamouring for its retention even after September, 1940 when the sanctioned period expires. The continuance of the scheme on a modified scale and at a reduced cost is being considered.

81. Maternity and child welfare branch of the health unit is doing exceptionally good work and has become very popular in the rural areas. As a result of constant advice and house-visiting the women and children attend in large numbers the six centres where clinics are held, their attendance being 3,056 ante-natal cases, 4,012 nursing mothers, 2,005 infants and 2,499 pre-school children. The Woman Medical Officer and 4 health visitors paid altogether 27,192 house visits during the year. The health unit midwives conducted 1,297 deliveries or 68·8 per cent of the total live births as against 70·1 in the previous year. Including the number of labour cases conducted by two other qualified midwives in the area, 78·0 per cent of the live births received skilled assistance from qualified midwives. Apart from this, the midwives made 10,121 post-natal visits.

82. An investigation into the infant mortality in cases that received skilled assistance at the time of birth was carried out for the period covering July 1936 to December 1939 and the Health Officer reports the following results:—

	1936 (six months).	1937.	1938.	1939.
1. Infant mortality rate in cases that received skilled assistance from Health Unit staff at the time.	137·0	126·0	118·5	143·9
2. Infant mortality rate in cases that received skilled assistance from other qualified midwives in the area.	48·3	178·6	273·5	214·3
3. Infant mortality rate in cases conducted by barbor-midwives.	191·1	298·4	230·8	253·2

It will be seen from the above figures that deaths among infants that had skilled assistance were sometimes even less than 50 per cent of those conducted by barbor-widwives. This clearly indicates that a good deal can be done by providing suitable midwifery service in rural parts to bring down infant mortality.

83. To educate the people in matters of health, the staff conducted 137 cinema shows, 322 magic-lantern demonstrations, 338 lectures without lanterns and 12,295 informal talks on various health subjects. The total attendance is estimated to be 190,275. Seven health exhibitions were held and 9,481 leaflets on health subjects were distributed.

84. The health inspectors inspected 7,243 houses during the year and had 5,299 backyards cleaned, 3,523 fly breeding places and 402 mosquito-breeding places cleared, 65 borehole latrines put up and 43 soakage pits constructed.

85. Six borewells were completed during the year with the help of contribution from villagers who supplied free labour, the panchayats putting up the platforms and pumps. In addition to this, 3 public wells were constructed and provided with pumps as part of the protected water-supply scheme.

86. During this year there was not even a single case of cholera. There were 64 cases of smallpox with 14 deaths. Intensive vaccination and revaccination were carried out the total number performed during the year being 14,048.

87. The unit is serving various purposes. Besides being a demonstration centre, it serves as a training field for public health workers and for students who undergo training in public health work. Rural Medical Practitioners are given public health training at this centre and so far 137 have been so trained. Pupils of the health visitors' classes and B.S.Sc. and L.P.H. students also receive their field training at the unit. Public health workers from other provinces also are sent here for training.

PORT HEALTH ADMINISTRATION.

88. The Assistant Directors of Public Health inspected the following ports in the course of their routine inspections during the year:—

Bimlipatam.	Cuddalore.	Tellicherry.
Calicut.	Mangalore.	Tuticorin.
Cocanada.	Masulipatam.,	

In consultation with the Public Health Commissioner with the Government of India, the list of headings in the summary of Port Health work at minor ports was changed. A large number of additional items of information have been added. The statement is appended as Annexure 'H'.

During the year the Government constituted an Advisory Committee for the administration of the Negapatam Port. The Committee was empowered to take cognizance of any specific or general grievances of the emigrants, assisted or unassisted and make recommendations to the various authorities concerned for necessary redress.

The Madras Port Health Rules were issued during the year and the rules, making the production of vaccination certificates a necessary condition precedent to embarkation of emigrants and passengers, were abolished. This information was given wide publicity as required by the Government.

The Government sanctioned a peon for the Port Health Officer, Cuddalore.

RURAL WATER-SUPPLY.

89. Reference has been made in the report for 1938 to the comprehensive ten-year scheme of rural water supply. The programmes submitted to Government in this connexion have been approved. The deviations in the programmes suggested every now and then by Collectors are recommended to Government for sanction.

Revised instructions regarding the collection and despatch of samples from rural water-supply works in progress were sent to the staff of the department in the course of the year.

In view of the administrative and technical difficulties experienced in the execution of the programmes of rural water-supplies, a committee was appointed in G.O. No. 2217, dated 21st June 1939, for the consideration of the following important subjects:—

(a) Types of water-supply suited to different villages and soil conditions.

(b) Suitable and economical agencies for the sinking of borewells.

(c) Suitable agency for the maintenance of borewells.

(d) Centralization of purchases for rural water-supplies.

(e) Extent to which local manufacture of the requisite articles could be made.

The committee held several sittings and the final report was submitted to Government towards the close of the official year (1939-40).

The investigation of fluorosis and water-supplies reference to which was made in the report for 1938 was continued in the King Institute during the year under review.

MATERNITY AND CHILD WELFARE.

90. Maternity and child welfare work in this Province progressed steadily during the year.

The Maternity and Child Welfare services.—Fifty-six women medical officers, 54 health visitors and 481 midwives worked (in approved schemes) under local boards and municipalities including the Corporation of Madras as against 40 women medical officers, 42 health visitors and 439 midwives in the previous year.

Women Medical officers.—Two women medical officers attended the post-graduate course in maternity and child welfare. A third took a post graduate course in midwifery for three months at the Government Victoria Caste and Gosha Hospital, Madras.

Health visitors.—Seven pupils, all Government stipendiaries, completed their training as health visitors at the Government Training school in June 1939 and were awarded diplomas. All of them have since been appointed as health visitors on the recommendation of the Director of Public Health. Seven pupils admitted in July 1939 will complete their course in June 1940. The need for the appointment of health visitors is constantly brought to the notice of local boards and municipalities; the response has been encouraging.

Midwives.—Ten midwives were sent for refresher courses by local bodies during the year.

Work.—The Corporation of Madras has reorganized its maternity and child welfare work in line with the policy of Government and increased its maternity and child welfare staff by 8 women medical officers and 8 health visitors.

91. The allotments made by the local boards and municipalities have increased from Rs. 1,06,947 and Rs. 3,12,460 respectively in 1938 to Rs. 1,22,718 and Rs. 3,56,083 during the year under report.

136,532 mothers, 105,679 ante-natal cases, 60,783 labour cases, 36,571 infants and 22,997 pre-school children came under the care of the maternity and child welfare staff. In all 14,256 clinics were held at which the attendance was 123,947 ante-natal cases, 133,900 infants, 111,266 pre-school children and 87,125 nursing mothers. Women medical officers, health visitors and midwives paid 57,493, 115,011 and 917,617 home visits respectively. Health talks were given in 821 girls' schools at which the total audience was 48,433.

92. *Work under Local Bodies.*—Work suffered generally in the districts of Ramnad, Salem and Tanjore and in the municipalities of Cocanada, Vizagapatam, Tanjore, Vellore and particularly in Ellore and Rajahmundry and also in Tenali, Coonoor, Tuticorin and Salem, either because vacancies of women medical officers, maternity and child welfare, were allowed to remain unfilled too long or the posts had not been sanctioned by the authorities concerned; while work in South Arcot and Vizagapatam districts and in the municipalities of Anantapur, Tadpatri, Bellary, Tiruppur, Calicut, Guntur, Bezwada, Karaikudi, Cuddalore and Villupuram have shown steady improvement since the appointment of women medical officers.

Cuddapah Municipality took over the management of maternity and child welfare from a voluntary body.

DEPUTATION OF RURAL MEDICAL PRACTITIONERS FOR PUBLIC HEALTH WORK.

93. Based on the report of this office on the working of the scheme for the past four years and owing to the fact that under G. O. No. 2639, Public Health, dated 12th July 1938, Rural Medical Practitioners should be entrusted with public health work immediately after they complete the special course of training prescribed in that order, the Government decided that the scheme should be extended to all the Rural Medical Practitioners' centres in a district. It is hoped that the scheme will ultimately result in a saving of the amount now spent by the district boards on the appointment of extra staff for cholera and other epidemic work, as trained Rural Medical Practitioners will serve as a reserve for epidemic duty and be available at a moment's notice. Accordingly the presidents of district boards were requested by the Government to arrange for the training of all Rural Medical Practitioners under their control, in batches, and to entrust them with public health work as speedily as possible.

From January to December 1939, four batches of Rural Medical Practitioners, aggregating 115 in all have been trained in public health work and many of them have been entrusted with public health work.

MEDICAL INSPECTION OF SCHOOLS.

94. Excepting in the case of the schools in Madras City belonging to the Corporation and those in Poonamallee Health Unit area and a few

institutions of the higher grades, there was no organized system of medical inspection in the other educational institutions in the province. In the first of the above instances, viz., Corporation Schools, midday meals were distributed to the indigent pupils as part of the school health and welfare activities.

A revised comprehensive scheme of school medical inspection including, within its scope, the treatment of the sick was drawn up in consultation with the Director of Public Instruction and was submitted to Government in September 1939. In G.O. Ms. No. 4502, Public Health, dated 7th December 1939, the consideration of this scheme has been deferred for the present.

A draft memorandum on the subject of school medical inspection was prepared for the Central Advisory Board of Health and was submitted to Government during the year.

FACTORIES.

95. *Inspections and sanitary control.*—The health and welfare of the industrial workers are safeguarded by the various statutory provisions in the Indian Factories Act and the rules framed thereunder. The District and Municipal Health Officers are additional Inspectors of Factories for the inspection of factories in their jurisdiction. As usual their inspection reports were sent to the concerned factory inspectors for action wherever necessary. 579 factories were inspected by the Health Officers.

In addition to the above provisions, there are certain sections in the Madras District Municipalities and Madras Local Boards Acts for the control of factories, workshops, workplaces, etc., which do not come under the Factories Act. Under these, no one can establish a factory, etc., without the permission of the local authority and the latter should consult the Health Officer as to the suitability of the site before such permission is granted. Though Government advised the Municipal Councils and Panchayats as early as 1927 to set apart definite areas for industrial development in consultation with the Director of Town-Planning and the Health Officer, several of them have not yet fixed industrial areas. Government have ordered that all factories situated outside the industrial areas which could reasonably be removed should be removed to the industrial areas in as early a time as possible. Moreover under the Public Health Act all urban local authorities should notify areas reserved for residential purposes and in these areas no fresh factory, workshop, etc., can come into existence and the existing factories can operate only under certain conditions.

MINES.

96. Mining was carried on in the districts of Anantapur, Chingleput, Coimbatore, Cuddapah, Kurnool, Nellore, The Nilgiris, Salem and Trichinopoly. The District Health Officers of these districts inspected altogether 42 mines during the year and sent their inspection notes to the Collectors concerned. The reports of the District Health Officers of Chingleput, Coimbatore, Salem and Nellore, who are ex-officio Inspectors of Mines, were sent to the Chief Inspector of Mines, Dhanbad, as usual.

Water-supply was reported to be satisfactory in the mines in these districts. Housing conditions have been unsatisfactory in the districts of Chingleput, Nellore and Coimbatore. Necessary improvements have been suggested by the concerned District Health Officers. No arrangements have been done to construct cooly lines in Salem district as the workmen come from the neighbouring villages. Sanitation and conservancy are reported to be satisfactory in these districts except in Nellore where the provision of latrine accommodation is reported to be very much neglected. Arrangements under medical relief are satisfactory in all the districts. Most of the mines are provided with First Aid equipments.

FOOD ADULTERATION.

97. During the year 1939 the Prevention of Adulteration Act has been worked in 91 local areas which include Madras City, 73 municipalities and 17 panchayats. The total number of samples taken was about 9,000. Madras City collected 1,320 of these and other areas numbers varying from 600 (Madura) to 48 (the quota of the smaller municipalities and panchayats). Generally samples were taken by Sanitary Inspectors in the municipalities, and Health Inspectors working under the direction of the District Health Officer in the panchayats. Samples from Madras City were analysed by the local Public Analyst, the remaining samples in the Government Analyst's laboratory.

Gross adulteration continues as is shown by the following figures :—

	Number of samples analysed.	Number found adulterated.	Percentage of adul- teration.
Ghee	2,310	837	36.2
Milk	3,834	1,881	49.1
Butter	334	87	26.0
Gingelly oil	1,643	237	14.4
Other samples	712	127	17.8

On the other hand there is some improvement; 35.9 per cent of the total samples taken in the year were found to be adulterated as against 41.0 per cent in 1933 and this in spite of the fact that many of the Health staffs have now worked out schemes for systematic sampling of the local vendors in replacement of the haphazard sampling that was general when the Act was first introduced.

The fines imposed for offences under the Act show a tendency to increase in those areas in which the Act has been in force for some time but in some of the smaller areas to which the Act has been extended only recently the fines are often much too small for them to act as deterrent.

HOUSING.

98. In municipal areas the construction and reconstruction of buildings are controlled by the provisions contained in the Madras District Municipalities Act. In certain areas the provisions of the Madras

Town-Planning Act were in force. During the year 1938-39 the Town-Planning Act was in force in 145 towns.

Provision has been made in the Madras Public Health Act, 1939, for the improvement of housing conditions. The following are some of the important provisions made in the Public Health Act for the improvement of housing conditions in the Province.

Reservation of areas for residential purposes.—Every urban local authority should notify the localities which are reserved for residential purposes. This notification could be issued only after obtaining the approval of the Director of Public Health and the Director of Town-Planning. After such notification it shall be unlawful for any person to construct or establish any factory, workshop or work place or to carry on any offensive trade in such localities.

Control over insanitary buildings.—The construction of new buildings on insanitary sites has been prohibited. Back to back houses should not be constructed without the previous permission of the Health Officer. Dwelling houses which are unfit for human habitation can be ordered to be vacated until they are rendered fit for such purpose.

Abatement of overcrowding.—Landlords are required to maintain dwelling houses in a habitable condition and to prevent overcrowding thereon. Rules have been drafted and submitted to Government for the maintenance of tenements in a habitable condition.

Water-supply.—New dwelling houses cannot be permitted to be occupied unless provision is made in the houses themselves or within a reasonable distance therefrom for a sufficient supply of wholesome water.

Drainage.—New buildings in an urban local area can only be occupied after the Health Officer certifies that they have been provided with sufficient means of drainage.

New buildings should also be provided with suitable sanitary conveniences.

Houses which are rendered unfit for human habitation by reason of any nuisance existing in them will not be permitted to be occupied until the nuisance is removed.

With the enforcement of the above the housing conditions in the province will certainly improve.

FAMINE.

99. During the year, there was famine in Coimbatore district. "Test Works" were opened during January and February in Palladam, Dharampuram and Udumalpet taluks and a fortnight after their opening, they were converted into relief camps. By the end of April, the total number of camps in all the taluks came up to 9. These camps were closed by the end of November 1939.

The sanitary arrangements in these areas were supervised by the concerned Health Inspectors and the District Health Officer. There was no outbreak of any epidemic disease in the famine-stricken areas.

SANITARY WORKS (CIVIL).

100. A summary of the report of the Superintending Engineer (Public Health) on sanitary works in the province is given below :—

Water-supply—(i) *Municipalities*.—No new water-supply scheme came into operation during the year, the number of municipalities with protected water-supply being 43. Improvements or extensions of existing schemes were under execution in 19 municipalities. Plans and estimates for water-supply schemes were either completed or under preparation in three municipalities and the investigation of water-supply scheme was completed in Guntur and was in progress in five municipalities.

(ii) *Rural areas*.—The water-supply scheme in Arkonam and Manapparai came into operation during the year, while improvements and extension of schemes were being executed in seven panchayats. Investigation of schemes for Arcot, Guntakal and Pithapuram was completed and was in progress in four panchayats.

Drainage.—The total number of drainage schemes in operation remained the same as in last year. The execution of drainage scheme in eight municipalities was taken up during the year, while plans and estimates for three municipalities were under preparation. The investigation of drainage scheme in ten municipalities and in two panchayats were either in progress or completed.

MADRAS PUBLIC HEALTH ACT.

101. The Public Health Act came into force with effect from 7th March 1939. Rules under various sections of the Act were drafted and submitted to Government. The salient features of the Act are as follows :—

- (1) The constitution of a Public Health Board for the province.
- (2) The statutory recognition of the Director of Public Health and the vesting of adequate powers in him for the effective discharge of his duties.
- (3) The taking of power (a) to compel the employment of Health Officers by important local authorities and (b) to fix the scales and conditions of service of the public health establishments employed by local authorities.
- (4) That local authorities should ear-mark a definite percentage of their income for the public health expenditure.
- (5) The imposition of an obligation on local authorities at the discretion of Government to provide a sufficient supply of drinking water and provision for the compulsory levy of a water-tax for financing water supply schemes.
- (6) Effective provisions for securing proper drainage and a sufficient number of public latrines, etc.
- (7) The prevention and abatement of nuisances.
- (8) Adequate measures for the prevention and eradication of infectious diseases.
- (9) The prevention, treatment and control of venereal diseases.
- (10) Maternity and Child welfare measures.
- (11) Mosquito control.

(12) The reservation of areas for residential purposes, control over insanitary buildings and the abatement of overcrowding.

(13) Registration of lodging houses.

(14) Food control.

(15) Special provisions regarding fairs and festivals, including the levy of a pilgrim tax in the case of waterborne traffic and of tolls on vehicles.

Wider powers have been vested in the Government and the Director of Public Health and it is hoped that this will result in improved public health administration.

VACCINATION.

102. The statistics of the vaccinations done during the last ten years are given in the following comparative statement :—

Years.	Cases vaccinated.		Total.
	Primary and Secondary.	Re-vaccination.	
1930-31 ..	1,465,362	669,271	2,134,633
1931-32 ..	1,508,024	597,813	2,105,837
1932-33 ..	1,406,717	1,352,558	2,759,275
1933-34 ..	1,297,829	3,254,926	4,552,755
1934-35 ..	1,381,176	3,842,744	5,223,920
1935-36 ..	1,418,663	2,857,227	4,275,890
1936-37 ..	1,403,254	2,085,722	3,488,976
1937-38 ..	1,466,503	2,193,219	3,659,722
1938-39 ..	1,481,847	2,590,449	4,072,296
1939-40 ..	1,516,894	3,320,875	4,837,769

The years 1934-35 and 1939-40 are record years in the history of Public Health Administration in the Province with respect to vaccination statistics. There is however this difference between the two years, namely, that, whilst in the year 1934-35, the five million mark was reached when the incidence of smallpox mortality was over 12,000, the latter was only about a fourth of the above figure in the year under review. It may however be pointed out in this connection that whilst in the presence of smallpox such record vaccination figures could be given, this would not be practicable at normal times with the existing vaccination staffs. With strict enforcement of vaccination laws and a sufficient staff of vaccinators, the annual vaccination turnover should be about 10 per cent of the population of the province; in actual practice, however, it will be possible to vaccinate only about 7 per cent of the population in a year if inadequacy of staff, sickness and inconvenience of subjects to be vaccinated and other factors are taken into consideration. About 3·50 to 3·75 millions of vaccinations should therefore be considered as the average outturn in normal years.

There was an increase of approximately 35,000 in primary vaccinations and 730,000 in re-vaccinations during 1939-40 as compared with the previous year.

103. Excepting in a few specified areas and small-pox affected localities, vaccination was suspended as usual during the hot weather and the

services of the subordinate staffs were utilized during this period for the checking of vital statistics records and the detection of unregistered unprotected cases and the preparation of lists of unprotected persons.

There was practically no change in the territorial areas with respect to compulsory vaccination.

104. In G.O. P. No. 3360, P.H., dated 22nd September 1939, Government approved the proposal that Sanitary Inspectors in panchayat areas should attend to vaccination work in addition to their other duties. Due to delays in providing equipments and some other causes, only 15 Panchayat Sanitary Inspectors conducted vaccinations in the latter part of the year under review.

105. Revised instructions issued in G. Os. Nos. 1144, Public Health and 1145, Public Health, dated 21st March 1938, for the conduct of vaccination in rural and municipal areas respectively came into force during the year.

Rural Medical Practitioners attended to vaccination work in their jurisdictions when smallpox was prevalent.

The chief difficulty in the enforcement of vaccination laws is the contempt for law engendered by the very low fines—four annas and even less—imposed in a large proportion of instances by the magistracy. The second difficulty experienced by the vaccinators arises from the lack of co-operation of the village officers in the maintenance of correct and complete unprotected lists. But for these, there were no other impediments worth recording in the conduct of vaccination.

106. *Vaccination in districts.*—The total number of vaccination operations done in rural areas in 1939-40 was 3,740,150 which is made up of 1,354,028 primary and secondary vaccinations and 2,386,122 re-vaccinations which represent increases of 33,939 and 551,364 respectively under the two heads as compared with the previous year. Increases of over 20,000 in the total turnover were reported from Malabar (178,000), Chingleput and Coimbatore (about 60,000), South Arcot (about 45,000), North Arcot, Cuddapah and Vizagapatam (31,000 to 37,000) and Tanjore, Trichinopoly and Chittoor (22,000 to 27,000); decreases occurred only in Godavari and have been accounted for by the District Health Officers concerned.

The number of children under one year of age successfully vaccinated was 577,820 as against 561,872 in the previous year. The ratio of infantile vaccination to total births varied from 25.9 in West Godavari district to 55.7 in Madura district.

The proportion of the rural population vaccinated during the year was 92.07 per mille whilst the ratio successfully vaccinated was 37.2 per mille. The latter ranged from 28.8 in West Godavari to 60.9 in the Nilgiris. The first of the above figures, viz., 92.07 should be considered as a more reliable index in estimating the ratio of the protected population in view of the fact that, on account of lateness in verification cognizance is not taken of the earlier immunity reactions in the re-vaccinated individuals, cases showing typical reactions alone being recorded as successful.

107. *Vaccination in municipalities.*—The total number of vaccinations performed in municipal towns was 1,011,839 which is an increase of 170,301 compared with the previous year. The number of primary and secondary vaccinations done during the year was 152,882 and revaccinations, 858,957. In 28 out of 82 municipalities, there were decreases in vaccination outturn as compared with 1938-39, these being most marked in Chittoor, Salem, Guntur and Kurnool. Increases were recorded mostly in towns where smallpox was epidemic.

The number of children under one year of age successfully vaccinated was 98,735 against 94,270 in 1938-39. The percentage of successful infantile vaccination to registered births varied from 27.4 in Narsaraopet to 98.8 in Sivakasi. Whilst ratios of 60 and less indicate slackness, very high figures as the one recorded in Sivakasi are probably due to the large number of out-births in the population immigrating into commercial centres; these out-births are vaccinated and taken into account in estimating the ratio of successful infantile vaccinations to total births although they do not find a place in the birth registers.

The proportion of the municipal population vaccinated in the year was 272.4 per mille which is indeed a very high figure; if this ratio were to be maintained, the population has to be vaccinated at intervals of about 3½ years which is obviously impracticable.

The ratio of successful vaccinations per mille of population varied from 31.1 in Cannanore to 162.8 in Coonoor. As regards the fallacy of the latter figures, the remarks in paragraph 106 may be referred to.

108. *Vaccination inspections.*—The number of cases inspected by District Health Officers and their assistants ranged from 188 in the Nilgiris to 4,773 in Malabar. As a result of the very large outturn of vaccinations in municipalities as well as districts rural, a large proportion of municipal health officers, medical officers and health inspectors failed to reach the minima prescribed for verification. Suitable action is however being taken in those instances where the shortage in verification was due to slackness or neglect.

Consequent on the introduction of the Public Health Act, the existing minima for vaccinations and verifications should have to be reduced in order to enable the members of the establishment to carry out other items of public health work. This will of course have to be done without prejudice to the efficiency of the administration of vaccination. Proposals with respect to this are under consideration and will be sent to Government in due course.

There were approximately 12,100 cases and 2,800 deaths from smallpox during 1939-40, the mortality rate being 23.14 per cent. About 87 per cent of the incidence was in rural areas and the rest in municipal towns corresponding more or less with the distribution of population in the two areas. Six districts, viz., Chingleput, North and South Arcots, Malabar, Coimbatore and Tanjore reported over 80 per cent of the total district incidence. The municipalities which were worst affected were Madras and towns situated in the above six districts.

Information regarding vaccinal condition is available for 10,311 cases and 1,939 deaths from smallpox; 5,000 cases and 1,500 deaths occurred

among unprotected persons and the rest among the vaccinated. The case mortality rates in the two sets of cases are: 30 per cent among the unprotected and 8·3 per cent among the vaccinated; the latter figure would actually be much lower still if allowance had been made for the period which had elapsed since the last vaccination and vaccinations done in the incubation period of smallpox on account of exposure to infection. In spite of the advantages of vaccination in the prevention of smallpox being so manifest, instances of inordinate delay on the part of village officers in reporting the occurrence of smallpox are still far too many, causing thereby considerable difficulties in bringing the epidemics under control. Glaring instances of such default are brought then and there by the District Health Officers to the notice of the Revenue authorities who, it is hoped, will take deterrent action against the defaulters.

109. *Isolation hospitals.*—Excepting about half a dozen municipalities, the rest do not possess suitable accommodation and proper equipment for the segregation and treatment of smallpox and chickenpox cases. As regards rural areas, these facilities are practically non-existent. The necessity for providing proper isolation hospitals for smallpox cases may again be impressed on all local bodies.

110. Statistics of the successful vaccinations performed during the year by the several agencies are given in the following statement.—

Staff.	Number of successful vaccinations.		Total.	Percentage of success.	
	Primary vacci- nations.	Re-vaccinations.		Primary vacci- nations.	Re-vaccinations.
Vaccinators—					
Local Fund	1,131,693	365,216	1,496,939	98·6	21·8
Government	14,452	1,526	15,978	94·3	22·6
Municipal	148,755	123,230	271,985	99·4	18·7
Cantonment	5,701	15,621	21,322	94·3	38·9
Medical subordinates and Port Health Officers.	80	6,090	6,170	86·9	46·0
Railways	1,223	616	1,839	98·9	17·3
Poonamallee Health Unit ...	1,529	1,525	3,054	97·4	20·8
Cauvery-Mettur Project ...	70	3	73	97·2	75·0
Dispensaries	...	...	...	...	...
Total ...	1,303,503	513,857	1,817,360	96·9	21·3

The success rates in vaccinations are generally governed by the circumstances favourable for the expeditious utilization of vaccine lymph. This is illustrated by the progressive decline noticed in the primary vaccination success rates among the operations done by the municipal, local board and agency vaccinators. In the case of the local board vaccinators, consistently low rates of success in primary vaccinations have been generally noticed in the Ceded and Circars districts; this should be investigated by the district health officers concerned and the contributory causes remedied.

The fallacies in the calculation of the success rates in revaccinations which affect incidentally the accuracy of the figures in the expenditure statement have been discussed in the report for 1938-39.

111. The strength of the permanent vaccination staff employed during the year was as follows:—

Year.	Health Inspectors.	Vaccinators.			Total.
		I class.	II class.	Probationary.	
1938-39	266	275	557	1	833
1939-40	266	287	574	...	861
Increase or decrease ...	...	+ 12	+ 17	- 1	+ 28

In addition to the above, varying temporary staffs were appointed in districts and towns affected by or threatened with smallpox.

Revaccination having been made compulsory by law health officers are constantly urging on the appointment of women vaccinators for the revaccination of women especially those observing purdah. The present staff of women vaccinators working in all local bodies is less than thirty. The situation will be met by increasing the cadre of vaccinators by 10 per cent, the additional staff so appointed being recruited from qualified women vaccinators. This should receive the earnest attention of all local bodies.

112. A comparative statement of the expenditure incurred on the vaccination staffs in the several categories is given below:—

Establishment.	Approximate expenditure during		Average cost of each successful case.	
	1938-39.	1939-40.	1938-39.	1939-40.
	RS.	RS.	RS. A. P.	RS. A. P.
Rural areas—				
Government establishments—				
Vaccinators and Health Inspectors.	1,84,900	1,83,240	...	...
Local Fund	4,11,600	4,32,960	...	...
Total for Rural areas ..	*5,96,500	6,16,200	0 6 6	0 6 6
Municipal	1,15,100	1,36,040	0 6 11	0 8 0
Cantonment	4,900	6,180	0 4 9	0 4 8
Poonamallee Health Unit ...	1,500	1,440	0 7 2	0 7 7
Grand total ...	7,18,000	7,59,860	0 6 7	0 6 9

* One-third of the expenditure on the establishment of Health Inspectors and peons is debited to vaccination.

The average cost of a successful case was lowest in Malabar district (Re. 0-4-7) and highest in the Nilgiris district (Re. 1-0-10). In municipalities it varied from (Re. 0-2-8) in Kurnool to (Re. 1-3-10) in Chittoor.

PUBLIC HEALTH ESTABLISHMENT AND PERSONAL PROCEEDINGS.

113. The strength of the Public Health department on 31st December 1939 was :—

1. Director of Public Health ..	1	
2. Assistant Directors of Public Health.	4	including the Professor of Hygiene, Medical College, Madras.
3. Assistant Directress of Public Health.	1	
4. First-class Health Officers ..	61	These include the post of Health Officer and the two Assistant Health Officers of the Madras Corporation, which are not included in the Madras Public Health Service.
5. Second-class Health Officers.	60	These include the two posts of Municipal Health Officers for Kodaikanal and Ongole sanctioned during the year on a temporary basis.
6. Health Inspectors ..	279	
7. Government Vaccinators ..	17	
8. Entomological Assistants ..	3	
9. Supervisors ..	2	(one post of Supervisor was sanctioned for anti-malarial work in Wynaad).
10. Women Medical Officers ..	2	(Woman Medical Officer, Poonamallee Health Unit, and the Warden, Government Training School for Health Visitors).
11. Compounders ..	2	
12. Health Visitors ..	4	Employed in Poonamallee Health Unit.
13. Midwives ..	9	
14. Biological Assistant ..	1	Health staff sanctioned for
15. Trained Attenders ..	2	Guineaworm control work.

Two posts of second-class Health Officers for the municipalities of Kodaikanal and Ongole and one Supervisor for anti-malarial work at Wynaad were sanctioned during the year on a temporary basis. All the other temporary posts were continued during the year. One first-class Health Officer proceeded to America for higher studies on Rockefeller Foundation Fellowship.

During the year, one first-class Health Officer and six Health Inspectors retired, one first-class Health Officer, one second-class Health Officer and one Health Inspector died. Seven Health Inspectors were punished.

The combination of functional distribution of work with territorial jurisdiction for purposes of routine inspection for Assistant Directors of Public Health continued to be in force with satisfactory results.

CONCLUDING REMARKS.

114. The outstanding features in the report for 1939 are the reduction in the mortality from cholera (2,115 deaths) and plague (324 deaths). As regards cholera the above figure is the lowest on record during the last 58 years, which may be attributed to the general awakening of the public to the dangers of this disease, the promptness of the Public Health department in taking all the necessary steps to prevent its spread and last but not least the co-operation of the various local bodies, who have exhibited generally their readiness to sanction the necessary funds to meet the emergent expenditure.

115. With regard to plague, the number of deaths is again the lowest on record and it may be safely stated that the preventive measures like cyanogas fumigation have played a very important part in keeping down the incidence of this disease. The continuation of these measures for the last few years has undoubtedly been responsible for this satisfactory result and it is hoped that perseverance in continuing the adoption of these steps for some years to come will play an undoubted and supreme part in not only completely controlling this disease but probably in its complete eradication. The grant by the Government on a half contributory basis to several districts has acted as a tremendous stimulus to the local bodies concerned in not only making them pay their moiety with readiness but has also created an interest in them in the welfare of their rate-payers. Measures like fumigation must necessarily be of a recurrent nature and these require to be reinforced by improved sanitation in villages and construction of rat-proof houses and granaries. The special work carried out in the Cumbum Valley during the past nine years has established the above facts and also the necessity for relentless attack on rats and fleas in burrows and huts by fumigation every quarter. It is perhaps not too much to hope that where a scheme of better sanitation and housing conditions is introduced, plague will not have the same terror as obtains to-day.

116. Smallpox took a toll of 3,120 lives as against 2,273 in 1938, in spite of improvement in vaccination and revaccination figures. It is well known that smallpox has no terror for the people and is treated with a casualness resulting in ignoring the efficacy of vaccination and revaccination. Despite this strange outlook the Public Health department has been doing its best to immunise the population. The fact that the case mortality among the unprotected was 30 per cent as against 8.3 per cent among the vaccinated does not need any stretch of imagination to grasp the advantages of protection; the figure for the vaccinated would have been much less had the public taken advantage of immunisation and not allowed long intervals to elapse between their primary vaccination and revaccination.

117. The number of deaths under fevers and all other causes must remain unsatisfactory in the absence of qualified agencies for returning accurate diagnoses. It is hoped that the training of rural medical practitioners in public health work, even though their number is limited, will go some way in removing a little of what must be admitted as an unsatisfactory position.

118. A perusal of the report will indicate that maternity and child welfare work is making a progressive and satisfactory advance. It appears desirable and necessary that some financial assistance from the Government to the local bodies would go a long way in giving the necessary encouragement for the further expansion of this activity.

119. It is satisfactory to note that no case of any infectious diseases occurred at any fair or festival. The aim of the Public Health department is to establish that the occurrence of such diseases in any congregation should be avoided at all costs.

120. Anti-malarial works at Ennore, Pattukkottai and Wynaad are being carried out and the results watched. It is expected that as the result of such work, necessary data will be obtained which will be of practical value not only to this Province but also to the rest of India and other parts of the world where similar conditions prevail.

121. The Poonamallee Health Unit has continued to be useful. Assiduous, diligent and persistent propaganda and contact with the people has succeeded in winning over the female population; so much so that maternity and child welfare work is one of the main sheet anchors for the existence of this Unit.

122. Rules have been and are being framed under various sections of the Public Health Act.

123. The staff of the Public Health department have carried out their duties to my satisfaction.

CAMP OOTACAMUND,
13th June 1940.

C. M. GANAPATHY, LIEUT.-COL., I.M.S.,
Director of Public Health.

ANNEXURE A.
Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Coimbatore, Conjeevaram, Cuddalore, Kumbakonam, Madurai, Mangalore, Negapatnam, Salem, Tanjore, Tinnevely, Trichinopoly and Vellore during the year 1939.

Age at the time of death.	(1)	(2)	Infectious diseases.								Fevers.					Respiratory diseases.	
			Cholera.	Plague.	Smallpox.	Measles.	Chickenpox.	Typhoid or enteric fever.	Diphtheria.	Others.	Malaria.	Influenza.	Relapsing fever.	Kala Azar.	Rheumatic fever.	(Other fevers.	Tuberculosis of lungs.
1	Under one year.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
2	Not exceeding one month.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Over one month and not exceeding six months.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Over six months and not exceeding 12 months.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total under one year.	27,045	...	...	33	24	2	7	3	22	5	14	...	...	...	178	5
	One year and under 5 years.	122,037	2	...	55	49	1	36	23	20	23	30	...	...	...	238	11
	5 years and under 10 years.	134,823	7	...	9	9	1	59	11	2	18	19	...	...	...	95	8
	10 years and under 15 years.	127,112	2	...	9	2	...	80	1	1	26	11	...	...	...	50	40
	15 years and under 20 years.	115,008	1	...	5	2	...	140	1	...	26	7	...	...	...	57	210
	20 years and under 30 years.	222,205	9	...	27	2	1	154	1	...	77	13	...	...	...	108	739
	30 years and under 40 years.	168,934	1	...	10	1	...	85	...	...	80	17	...	...	...	81	604
	40 years and under 50 years.	114,986	4	...	5	...	...	44	...	...	73	14	...	...	...	113	485
	50 years and under 60 years.	69,755	2	...	1	...	...	16	...	...	59	16	...	...	...	109	275
	60 years and upwards.	49,326	3	...	3	...	...	7	...	...	76	16	...	...	...	255	121
	Total for all ages.	1,152,231	31	2	157	88	5	687	40	49	403	157	...	1	50	1,279	2,498
	Rate per 1,000 of population ...	...	0.03	0.002	0.14	0.08	0.004	0.55	0.03	0.04	0.40	0.14	...	0.001	0.04	1.11	2.17

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cocanada, Coimbatore, Conjeevaram, Cuddalore, Kumbakonam, Madura, Mangalore, Negapatam, Salem, Tanjore, Tinnevely, Trichinopoly and Vellore during the year 1939—cont.

Age at the time of death.				Respiratory diseases—cont.		Alimentary system.			Disease of the liver.		Circulatory system.			Genito-urinary diseases excluding venereal diseases		Venereal diseases.		
				Pneumonia.	Others.	Dysentery.	Diarrhoea.	Others.	Cirrhosis.	Others.	Heart disease.	Arterio-sclerosis.	Others.	Bright's disease.	Others.	Syphilis.	Gonorrhoea.	Others.
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)				
Under one year.	Not exceeding one month.	Under one week ...	4	27	2	1	15	1	1	...	...	7	...	...	24	...	6	
		Over one week ...	30	35	3	18	41	6	...	...	...	...	2	13	1	1		
		Over one month and not exceeding six months ...	314	177	56	150	76	24	5	...	...	2	1	5	21	2	5	
		Over six months and not exceeding 12 months ...	383	171	192	218	64	40	13	2	...	9	4	1	11	...	1	
		Total under one year...	731	410	253	387	196	71	19	2	...	18	5	8	69	3	13	
One year and under 5 years ...			1,181	389	843	382	119	350	83	6	...	21	55	27	6	...	3	
5 years and under 10 years ...			260	40	147	42	15	25	15	12	...	19	37	15	...	...	...	
10 years and under 15 years ...			171	6	42	7	16	18	8	29	...	18	14	10	...	...	...	
15 years and under 20 years ...			176	8	25	33	43	9	12	36	1	35	21	4	1	1	...	
20 years and under 30 years ...			293	19	109	150	147	21	18	130	1	119	54	24	12	10	3	
30 years and under 40 years ...			247	45	107	129	183	56	34	185	...	99	70	34	23	2	1	
40 years and under 50 years ...			213	61	146	111	166	68	25	231	1	126	100	40	9	5	2	
50 years and under 60 years ...			213	105	134	116	139	62	13	284	...	117	124	81	4	...	...	
60 years and upwards ...			159	216	190	172	118	36	15	525	...	209	127	52	1	1	...	
Total for all ages ...			3,644	1,299	2,046	1,529	1,142	716	242	1,440	3	781	607	245	125	22	22	
Rate per 1,000 of population ...			3.16	1.13	1.78	1.33	0.99	0.62	0.21	1.25	0.003	0.68	0.53	0.21	0.11	0.02	0.02	

ANNEXURE A—cont.

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cocanada, Coimbatore, Conjeevaram, Cuddalore, Kumbakonam, Madura, Mangalore, Negapatam, Salem, Tanjore, Tinnevely, Trichinopoly and Vellore during the year 1939—cont.

Age at the time of death.			Diseases of the nervous system.					Accidents of pregnancy and child-birth.			Deficiency diseases.			Malignant diseases.					Ankylostomiasis.	Diabetes.
			Convulsions.	Cerebral hæ- morrhage (apoplexy).	Tetanus.	Epilepsy.	Others.	Puerperal sepsis.	Abortion.	Other accidents and diseases of pregnancy and parturi- tion.	Beri-Beri.	Rickets.	Others.	Alimentary tract.	Genito- urinary.	Breast.	Other regions.			
(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)				
1 } 2 } 3 } 4 } Under one year.	Not exceeding one month.	Under one week ...	328	1	1	1	1	...	...	...	...	...	1	...	...	...	...	...	...	
		Over one week ...	492	..	..	3	...	...	...	...	...	...	7	...	...	...	3	...	...	
		Over one month and not exceeding 6 months ...	996	...	...	...	1	...	...	...	...	18	15	...	...	...	1	...	...	
		Over 6 months and not exceeding 12 months ...	633	...	...	...	3	...	...	...	...	23	8	...	...	...	2	...	...	
		Total under one year ...	2,447	1	1	4	5	...	...	...	...	41	31	...	...	...	6	...	...	
One year and under 5 years ...			803	...	9	4	5	...	...	...	...	228	26	2	...	...	9	9	...	
5 years and under 10 years ...			52	1	18	15	8	...	...	...	...	17	9	...	...	...	4	12	...	
10 years and under 15 years ...			6	1	10	16	10	2	...	1	1	3	3	...	...	...	2	2	...	
15 years and under 20 years ...			1	1	10	8	10	64	9	69	2	1	3	1	2	...	7	8	...	
20 years and under 30 years ...			...	7	27	17	43	157	26	194	4	1	3	3	2	2	18	11	5	
30 years and under 40 years ...			1	14	16	16	55	72	15	121	6	3	6	11	5	1	29	16	25	
40 years and under 50 years ...			...	33	11	9	90	12	3	14	6	2	17	13	10	4	40	19	76	
50 years and under 60 years ...			1	55	11	11	138	...	...	1	17	1	11	10	4	5	34	13	113	
60 years and upwards ...			...	127	7	6	266	...	...	7	4	1	11	6	6	2	24	10	92	
Total for all ages ...			3,311	240	120	106	630	307	53	407	40	298	120	46	29	14	173	100	812	
Rate per 1,000 of population ...			2.87	0.21	0.10	0.09	0.55	0.27	0.05	0.35	0.03	0.26	0.10	0.04	0.03	0.01	0.15	0.09	0.27	

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cochin, Coimbatore, Congerem, Cuddalore, Kumbakonam, Madurai, Mangalore, Negapatam, Salem, Tanjore, Tirunelveli, Trichinopoly and Vellore during the year 1939—cont.

Age at the time of death.		(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Under one year.	Under one week	...	...	1,936	...	2	...	...	...	...	...	78	2,432	46,464	
Not exceeding one month.	Over one week	...	...	698	...	3	...	...	...	1	...	100	1,472	28,124	*Births ... 26,704 25,646 52,350
Under one year.	Over one month and not exceeding six months	...	...	211	...	9	...	...	...	1	...	165	2,373	45,334	*Deaths ... 18,605 17,246 35,851
Under one year.	Over six months and not exceeding 12 months	...	...	43	...	6	...	...	...	1	...	94	2,080	39,736	Still-births, 1,733 1,305 3,038
Total under one year		...	...	2,888	...	20	...	...	...	3	...	432	8,357	159,344	
One year and under 5 years		...	...	30	3	40	4	...	2	2	...	200	5,884	44,12	
5 years and under 10 years		...	...	1	4	52	5	...	1	2	...	65	1,135	8,42	
10 years and under 15 years		...	...	1	5	40	4	...	3	...	...	48	729	574	
15 years and under 20 years		...	...	...	2	39	1	...	16	4	...	73	1,157	10,32	
20 years and under 25 years		...	...	...	11	...	6	...	39	7	...	226	3,141	14,14	
25 years and under 30 years		...	...	...	...	5	78	...	28	10	...	251	2,908	17,11	
30 years and under 35 years		...	...	...	...	5	74	...	20	2	...	265	2,785	24,22	
35 years and under 40 years		...	...	...	...	4	52	...	10	1	...	263	2,616	37,50	
40 years and under 45 years		...	...	...	...	2	40	...	1	7	...	651	7,609	154,26	
45 years and under 50 years		...	...	...	...	2	40	...	1	8,979	...	...	...	...	
50 years and under 55 years		...	...	...	...	1	...	...	...	...	...	...	...	...	
55 years and under 60 years		...	...	...	...	...	...	...	...	...	...	...	...	...	
60 years and upwards		...	...	...	...	...	...	...	...	...	...	...	...	...	
Total of all ages		102	5	2,922	32	508	27	...	132	32	3,986	2,484	36,851	31,12	
Rate per 1,000 of population		0.09	0.04	2.54	0.03	0.45	0.02	...	0.11	0.03	3.42	2.16	31.12	...	

* Total births and deaths exclude "still-births."

† Rate per 1,000 live-births.

ANNEXURE B.

Statement showing the Number of Deaths and Death-rates from Cholera during 1909 in the Municipalities with and without protected Water-supply.

(a) *Municipalities with protected water-supply.*

Number.	Names of municipalities.	Number of deaths from cholera.	Rate per 1,000 of population.	Number.	Names of municipalities.	Number of deaths from cholera.	Rate per 1,000 of population.
1	Adōni ...	...	...	25	Nellore ...	...	...
2	Anantapur ...	...	...	26	Ootacamund ...	...	...
3	Bellary ...	...	...	27	Palni ...	...	...
4	Bezwada ...	...	...	28	Palacole ...	...	...
5	Chidambaram ...	4	0·16	29	Periyakulam ...	...	...
6	Chingleput ...	...	...	30	Proddatur ...	...	...
7	Cocanada ...	...	...	31	Rajahmundry ...	...	...
8	Coinbatore ...	...	...	32	Saidapet ...	...	...
9	Conjeevaram ..	...	...	33	Salem ...	...	...
10	Coonoor ...	...	...	34	Tadpatri ...	...	...
11	Cuddalore ...	...	...	35	Tanjore ...	3	0·04
12	Cuddapah ...	...	...	36	Tirupati ...	...	...
13	Dindigul ...	...	...	37	Tiruvannamalai ...	...	...
14	Ellore ...	...	...	38	Trichinopoly ...	1	0·01
15	Erode ...	...	...	39	Tuticorin ...	...	...
16	Gudiyattam ...	...	...	40	Vellore ...	...	...
17	Guntur ...	1	0·02	41	Virudunagar ...	...	...
18	Kodaikanal ...	...	...	42	Vizagapatam ...	...	...
19	Kumbakonam ...	27	0·43	43	Vizianagram ...	...	...
20	Kurnool ...	3	0·08				
21	Madras ...	2	0·003				
22	Madura ...	...	...		Total ...	41	0·02
23	Masulipatam ...	...	...		Mean rate for 5 years ending with 1939.		0·33
24	Negapatam ...	...	...				

(b) *Municipalities without protected water-supply.*

1	Anakapalle		22	Palamcottah	
2	Bimlipatam		23	Palghat	
3	Bodinayakkannur		24	Peddapuram	
4	Calicut		25	Pollachi	
5	Cannanore		26	Sivakasi	
6	Chittoor		27	Srirangam	
7	Chicacole		28	Srivilliputtur	
8	Cochin		29	Tellicherry	
9	Devakottai		30	Tenali	
10	Dharmapuram		31	Tinnevely	
11	Gudivada		32	Tirupattur	
12	Hindupur		33	Tiruppur	
13	Hospet		34	Tiruvarur	5
14	Karaikudi		35	Udamalpet	
15	Karur		36	Udipi	
16	Mangalore		37	Vaniyambadi	
17	Mannargudi		38	Villupuram	
18	Mayavaram	21	39	Walajapet	
19	Nandyal				
20	Narasaraopet			Total	26
21	Ongole				
				Mean rate for 5 years ending with 1938.	0·55

ANNEXURE C.

Financial Statement showing the Working of the Health Propaganda Section of the Office of the Director of Public Health, Madras, during the year 1939.

Serial number.	Detail	Amount.		
		RS.	A.	P.
1	Establishment charges (including pay of officers, establishment, allowances, honorarium, etc.) ...	1,536	0	0
2	Cost of printing leaflets and posters ...	4,125	9	0
3	Miscellaneous charges including repairs, renewals of equipment, slides, purchases of materials for artist, etc.	380	13	8
4	Total cost (items 1 to 3) ...	6,042	6	8
5	Sale-proceeds of leaflets and posters ...	3,028	14	3
6	Value of posters and leaflets unsold ...	24,162	13	6
7	Receipts from loan of magic lanterns, slides, films, etc. ...	1,526	3	0
8	Total of items 5 to 7 ...	29,517	14	9
9	Net gain ...	23,475	8	1
10	Net extra expenditure deducting Rs. 8,000 being the grant originally made to the Madras Health Council. No extra expenditure.			
11	Net extra expenditure according to the sanctioned scheme ...			Nil.
12	Capital expenditure (purchase of films, etc.) specially sanctioned from time to time ...	2,246	14	0

ANNEXURE D.

Maternity and Child-welfare in Rural Areas (Districts exclusive of Municipalities) during 1939.

Serial number.	Names of districts.	Area in square miles.	Total revenue of District	Amount spent on Maternity and Child-welfare work.	Percentage of total amount spent on Maternity and Child-welfare work.	Maternity and Child-welfare centres.		Medical women.			Number of Health Visitors.		Midwives.				In rural medical relief dispensaries.
						Aided and managed by private	Local boards.	Appointed for Maternity and Child-welfare work.	In medical institutions.	Private practitioners.	Per 1,000 births.	Local boards.	Private.	In full-time domiciliary service.	In private practice.	In hospitals and dispensaries (Govt. Local Fund and Private).	
1	Anantapur	6,741	4,88,655	2,800	0.30	2	19	1	4	...	0.12	2	...	...	...	15	13
2	Bellary	5,519	4,05,552	Nil.	...	...	...	...	...	...	...	...	...	...	...	11	10
3	Chingleput	1,371	6,93,793	12,128	1.75	...	...	...	...	...	...	...	...	...	...	23	17
4	Chittoor	5,914	4,80,610	1,920	0.40	...	...	...	...	...	...	...	...	...	...	27	13
5	Coimbatore	7,044	12,40,424	12,474	1.05	12	1	2	3	...	0.06	13	...	...	...	21	11
6	Cuddapah	5,918	3,81,845	459	0.12	1	6	1	2	...	0.06	6	...	...	...	20	7
7	Godavari, East	2,527	12,29,365	4,581	0.37	...	...	...	...	...	...	...	...	...	...	57	44
8	Godavari, West	2,361	6,31,285	8,850	...	...	...	...	...	...	...	...	...	...	...	15	...
9	Guntur	5,750	11,63,132	3,117	0.27	...	...	...	...	...	...	...	...	...	...	43	30
10	Kistna	3,488	10,86,000	8,300	0.76	...	...	...	...	...	...	...	...	...	...	...	...
11	Kurnool	7,837	1,24,150	1,529	0.23	...	...	...	...	...	...	...	...	...	...	...	...
12	Madura	4,908	11,13,230	4,770	0.43	...	...	...	...	...	...	...	...	...	...	...	...
13	Malabar	...	11,06,320	1,055	0.10	...	...	...	...	...	...	...	...	...	...	...	...
14	Nellore	7,978	7,34,411	1,081	0.14	...	...	...	...	...	...	...	...	...	...	...	...
15	The Nilgiris	982	2,38,100	752	0.32	...	...	...	...	...	...	...	...	...	...	...	...
16	North Arcot	4,945	9,00,878	10,359	1.15	3	1	...	...	...	...	...	...	...	...	...	...

ANNEXURE D—cont.

Maternity and Child-welfare in Rural Areas (Districts exclusive of Municipalities) during 1939—cont.

Serial number.	Names of districts.	Midwives.		Number of cases receiving skilled aid at child birth.	Percentage of cases receiving skilled aid at child-birth.	Beds in hospitals.			Live-births.	Still-births.	Number of infantile deaths.	Infantile mortality rate per 1,000 live-births.	Number of maternal deaths.	Maternal mortality rate per 1,000 births.
		Total.	Per 1,000 births.			Maternity.		Children's diseases.						
						Number.	Per 1,000 births.								Number.
		(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
1	Anantapur...	36	0.74	2,926	7.24	5	0.12	...	40,049	375	8,698	117.1	626	15.48
2	Bellary ...	21	0.56	3,018	8.08	...	...	...	37,054	295	7,125	192.3	248	6.64
3	Chingleput ...	61	1.09	5,651	10.14	14	0.25	...	54,842	842	10,295	187.59	428	7.68
4	Chittoor ...	46	0.87	3,580	6.76	31	0.58	14	52,390	677	7,908	150.9	425	8.01
5	Coimbatore ...	45	0.51	4,469	5.05	14	0.16	...	88,078	475	15,074	171.1	476	5.37
6	Cuddapah ...	28	0.83	1,880	4.95	4	0.12	5	33,639	251	6,217	184.8	402	11.88
7	Godāvari, East ...	107	1.98	4,500	8.34	31	0.57	...	53,288	656	11,106	208.4	624	11.56
8	Godāvari Agency ...	...	...	...	...	...	...	...	9,002	137	1,585	...	91	...
9	Godāvari, West ...	40	0.92	2,880	6.60	11	0.25	7	43,211	441	10,427	241.3	491	11.24
9	Guntur ...	77	0.90	4,308	5.52	42	0.54	61	77,154	850	17,178	222.6	706	9.05
10	Kistna ...	8	0.17	4,159	8.85	27	0.58	20	46,289	606	10,285	222.1	503	10.72
11	Kurnool ...	44	1.06	1,475	3.53	...	...	...	41,172	531	8,249	200.3	379	8.08
12	Madura ...	29	0.39	2,951	3.89	16	0.21	...	75,299	587	11,815	156.0	454	5.98
13	Malabar ...	61	0.52	3,992	3.37	2	0.02	...	1,15,746	2,574	17,374	150.1	828	6.99
14	Nellore ...	29	0.52	3,054	5.46	...	...	...	55,357	624	10,379	187.4	402	7.18
15	The Nilgiris ...	13	2.90	212	4.72	8	1.78	4	4,423	60	591	133.6	26	5.79
16	North Arcot ...	49	0.56	4,267	4.86	46	0.52	14	86,812	943	13,128	151.2	564	6.42

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ANNEXURE D—cont.

Maternity and Child-welfare in Rural Areas (Districts exclusive of Municipalities) during 1939—cont.

Serial number.	Names of districts.	Area in square miles.	Total revenue of District Board.	Amount spent on Maternity and Child-welfare work.	Percentage of total amount spent on Maternity and Child-welfare work.	Maternity and child-welfare centres.		Medical women.				Number of health visitors.		Midwives.					
						Local boards.	Aided and managed by private bodies.	Appointed for Maternity and Child-welfare work.	In medical institutions.	Available as consultants.	Private practice.	Per 1,000 births.	Local boards.	Private.	In full time domiciliary service.		In private practice.	In hospitals and dispensaries (Govt., Local Fund and Private).	In rural medical relief dispensaries.
															Local boards.	Private.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
			RS.	RS.															
17	Ramnad ...	4,835	12,00,000	7,970	0.66	8	...	1	15	...	0.25	...	...	8	...	...	43	26	
18	Salem ...	7,057	10,45,311	11,264	1.08	18	...	1	4	...	0.06	1	...	19	...	...	23	18	
19	South Arcot ...	4,207	9,65,120	3,141	0.33	2	...	1	7	...	0.09	...	...	2	...	...	29	13	
20	South Kanara ...	4,012	6,72,170	3,058	0.46	...	...	...	1	...	0.02	...	...	9	...	...	15	13	
21	Tanjore ...	3,727	17,72,080	12,912	0.73	15	...	2	...	...	0.03	2	...	15	...	...	35	32	
22	Tinnevely ...	4,042	10,27,498	1,047	0.10	2	...	...	...	...	...	...	...	2	...	...	31	10	
23	Trichinopoly ...	4,314	11,15,046	3,622	0.32	3	...	1	...	...	0.01	...	...	3	...	...	40	27	
24	Vizagapatnam ...	8,000	11,85,070	6,610	0.59	5	...	1	2	1	0.03	1	...	5	...	...	39	9	
Total for the Districts.		...	...	1,23,799	...	122	10	15	83	15	0.07	9	1	153	13	8	610	378	
Total for the Municipalities.		...	...	3,56,839	...	84	16	40	126	41	1.22	44	5	332	13	148	...	245	
Total for the Presidency.		...	...	4,80,638	...	206	26	55	209	56	0.19	53	6	485	26	156	610	621	

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Maternity and Child-welfare in Rural Areas (Districts exclusive of Municipalities) during 1939—cont.

Number.	Names of districts.	Midwives.		Number of cases receiving skilled aid at child birth.	Percentage of cases receiving skilled aid at child birth.	Beds in hospitals.			Live-births.	Still-births.	Number of infantile deaths.	Infantile mortality rate per 1,000 live births.	Maternal deaths.	Maternal mortality rate per 1,000 births.
		Total.	Per 1,000 births.			Maternity.		Children's diseases.						
						Number.	Per 1,000 births.	Number.						
(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)		
17	Ramnad ...	77	1.20	5,359	8.37	..	..	..	63,208	817	8,559	135.4	503	7.85
18	Salem ...	66	0.74	6,191	6.90	9	0.10	..	88,999	720	13,411	150.7	569	6.34
19	South Arcot ...	44	0.49	3,468	3.87	6	0.07	11	81,828	751	13,021	159.1	693	7.73
20	South Kanara ...	37	0.77	3,404	7.12	4	0.08	..	46,875	886	6,339	135.2	435	9.10
21	Tanjore ...	82	1.19	5,457	7.94	20	0.29	8	67,398	1,374	11,298	167.6	1,049	15.25
22	Tinnevely ...	43	0.54	2,657	3.33	..	..	..	78,522	1,345	14,402	183.4	745	9.33
23	Trichinopoly ...	70	1.04	2,345	3.49	..	..	..	66,255	972	11,165	168.5	744	11.06
24	Vizagapatam ...	53	0.42	5,354	4.19	19	0.15	..	126,707	950	22,525	177.7	973	7.62
	Total for the Districts.	1,160	0.75	84,313	5.43	309	0.20	144	1,533,636	18,739	268,522	175.08	13,394	8.63
	Total for the Municipalities.	738	4.36	65,785	38.77	1,072	6.34	370	161,115	8,086	28,952	179.69	2,054	12.13
	Total for the Presidency.	1,898	1.10	150,098	8.71	1,381	0.80	514	1,694,751	26,825	297,474	175.52	15,448	12.14

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ANNEXURE E.

Maternity and Child-welfare—Municipalities in the year 1939.

Maternity and Child-welfare—Municipalities in the year 1939—cont.

Number.	Names of municipalities.	Area in square miles.	Total revenue of Municipalities.	Amount spent on Maternity and Child-welfare work.	Percentage of total amount spent on Maternity and Child-welfare work.	Maternity and Child-welfare Centres.		Appointed for Maternity and Child-welfare work.	Medical women.		Per 1,000 births.	Number of Health visitors.		Midwives.		
						Local bodies.	Aided and managed by private bodies.		In Medical Institutions.	Available as consultants. Private Practice.		Local bodies.	Private.	Local bodies.	In full time domiciliary service. Private.	In private practice.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	North Arcot district—cont.		RS.	RS.												
52	Vaniyambadi ...	3.50	83,932	...	...	...	...	...	1	2	3.03	...	...	...	...	...
53	Tiruppattur ...	1.75	1,05,566	3,411	3.23	1	...	...	1	1	2.16	...	...	1	...	...
54	Walajapet ...	1.02	40,000	300	0.75	...	...	...	...	...	...	...	...	...	...	...
	Ramanad district—															
55	Virudunagar ...	2.68	2,56,020	1,605	0.63	1	...	...	1	...	0.64	1	...	4	...	3
56	Srivilliputtur ...	1.85	59,349	479	0.81	...	...	...	...	...	...	...	...	1	...	...
57	Karaikudi ...	6.49	1,52,356	3,737	2.45	2	...	1	1	...	2.18	1	...	2	...	1
58	Sivakasi ...	3.6	41,302	...	...	...	...	...	1	...	1.47	...	...	1	...	...
59	Devakottai ...	7.5	1,19,710	185	0.15	1	1	...	1	...	1.65	...	...	1	...	...
60	Salem district—Salem ...	5.00	5,91,065	10,146	1.72	3	...	1	2	...	0.72	2	...	10	...	1
	South Arcot district—															
61	Cuddalore ...	12.06	1,38,476	5,195	3.75	5	...	1	3	...	1.69	...	...	5	1	1
62	Chidambaram ...	2.00	1,00,260	620	0.62	1	...	...	1	...	0.93	...	...	2	...	1
63	Villupuram ...	2.33	71,478	440	0.62	...	...	1*	1	...	1.29	...	...	2	...	...
	South Kanara district—															
64	Mangalore ...	5.25	8,18,270	5,771	1.81	2	1	1	2	1	1.61	...	...	8	...	16
65	Udipi ...	3.70	39,940	425	1.06	...	...	...	3	...	4.19	...	...	1	...	3
	Tanjore district—															
66	Tanjore ...	8.30	4,59,373	...	...	...	...	...	3	...	0.99	...	...	...	...	7
67	Kumbakonam ...	4.42	4,49,890	1,231	0.27	2	1	...	4	...	1.38	...	1	4	6	...
68	Negapatam ...	5.44	1,80,620	1,503	0.83	2	...	...	3	1	2.39	...	...	3	...	3
69	Mayavaram ...	4.70	1,32,457	830	0.63	...	...	...	1	...	0.84	...	...	2	...	1
	Tiruvannamalai district—															
70	Tiruvannamalai ...	4.75	78,585	...	...	...	...	...	...	...	...	...	...	...	...	1
71	Mannargudi ...	4.20	66,210	1,000	1.51	...	...	...	1	...	1.35	...	...	2	...	...
	Tinnevely district—															
72	Tuticorin ...	3.07	3,87,300	2,969	0.77	...	1	...	2	...	0.66	...	...	4	...	3
73	Tirunelveli ...	35.8	3,94,396	3,999	1.01	...	1	1	1	...	0.91	...	...	5	...	1
74	Palamcottah ...	3.46	90,793	1,144	1.26	...	1	...	3	2	3.62	...	1	3	...	...
	Trichinopoly district—															
75	Trichinopoly ...	8.90	14,03,391	7,015	0.50	3	4	1	4	3	1.35	1	...	9	...	12
76	Srirangam ...	5.07	1,25,160	1,143	0.91	...	...	...	1	...	1.06	...	...	2	...	...
77	Karur ...	2.33	1,38,160	446	0.32	...	...	...	...	...	...	...	...	1	...	...
	Vizagapatam district—															
78	Vizagapatam ...	6.13	5,79,484	3,907	0.67	2	...	...	5	1	2.61	...	...	4	...	2
79	Vizianagaram ...	3.50	2,49,566	2,612	1.05	1	...	1	1	...	0.99	...	...	2	...	4
80	Anakapalli ...	...	1,05,440	700	0.72	1	...	...	...	...	...	...	...	1	...	1
81	Chicasole ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
82	Bimlipatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	3,56,659	...	84	16	40	127	41	...	44	5	332	13	148

* Part-time only.

Maternity and Child-welfare—Municipalities in the year 1939—cont.

Number.	Name of municipality.	In hospitals and dispensaries (Government, Local Fund and private).	Midwives—cont.		Number of cases receiving skilled aid at child birth.	Percentage of cases receiving skilled aid at child birth.	Beds in hospitals, exclusively for			Live births.	Still births.	Number of infantile deaths.	Infantile mortality rate per 1,000 births.	Maternal deaths.	Maternal mortality rate per 1,000 births.
			Total.	Per 1,000 births.			Maternity.		Children's diseases.						
							Number.	Per 1,000 births.								Number.
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)		
	North Arcot district—cont.														
52	Vaniyambadi ...	5	5	5.10	225	22.94	4	4.34	...	950	31	102	107.36	8	8.15
53	Tiruppattur ...	4	5	5.40	328	35.42	...	...	...	889	37	107	120.36	8	8.63
54	Walajapet ...	1	1	2.51	167	41.95	...	...	...	385	13	52	135.06	2	5.02
	Ramnad district—														
55	Virudanagar ...	2	9	5.74	516	32.93	10	6.38	4	1,481	86	248	167.45	20	12.76
56	Srivilliputtur ...	1	2	1.47	339	25.00	...	...	...	1,327	20	223	168.04	17	12.53
57	Karaikudi ...	2	5	5.46	481	52.51	5	5.46	...	855	61	156	182.45	14	15.28
58	Sivakasi ...	1	2	2.94	293	43.02	...	...	...	654	27	74	113.15	12	17.62
59	Devakottai ...	2	3	4.95	...	...	8	13.20	...	583	18	89	151.36	10	16.50
60	Salem district—Salem ...	2	13	3.11	2,341	56.07	21	5.03	4	3,940	235	590	149.74	48	11.49
	South Arcot district—														
61	Cuddalore ...	2	9	3.59	1,282	51.15	12	4.79	...	2,413	93	358	148.36	42	16.76
62	Chidambaram ...	1	4	3.70	548	50.74	...	...	...	1,012	68	157	155.13	29	26.86
63	Villupuram ...	2	4	5.16	360	46.45	...	...	...	754	21	91	120.69	23	29.67
	South Kanara district—														
64	Mangalore ...	3	27	5.16	1,636	68.30	28	11.23	10	2,373	110	210	88.49	30	12.08
65	Udipi ...	4	8	11.17	396	53.31	10	13.97	25	637	19	76	109.03	9	12.56
	Tanjore district—														
66	Tanjore... ..	2	9	2.97	1,597	52.71	40	13.20	12	2,545	185	447	157.11	47	15.51
67	Kumbakonam ...	8	18	6.20	1,676	57.69	45	15.49	...	2,586	319	339	131.09	59	20.31
68	Negapatam ...	2	8	4.78	688	41.07	12	7.13	...	1,593	82	271	170.12	17	10.14
69	Mayavaram ...	1	4	3.35	425	36.79	2	4.68	...	1,155	38	150	129.87	19	15.92

70	Tiruvarur ...	5	6	5.87	177	17.32	...	...	...	1,000	22	122	122.00	19	18.69
71	Mannargudi ...	1	3	4.04	701	94.47	6	8.09	...	645	97	129	200.00	10	13.47
72	Tinnevely district—														
73	Tuticoria ...	2	9	2.98	1,307	43.31	28	9.27	...	2,951	67	640	216.87	31	10.27
74	Tinnevely ...	1	7	3.19	958	43.72	...	...	...	2,107	84	487	231.13	34	15.61
	Palamcottah ...	1	4	2.90	826	59.94	6	4.35	6	1,252	126	203	162.14	34	24.67
75	Trichinopoly district—														
76	Trichinopoly ...	7	28	4.72	2,720	45.89	18	3.04	...	5,886	241	962	169.18	94	15.86
77	Srirangam ...	1	3	3.18	518	51.87	4	4.24	...	892	52	146	163.67	4	4.23
	Karur ...	1	2	2.08	344	35.76	6	6.24	...	928	36	167	180.34	7	7.27
78	Vizagapatam district—														
79	Vizagapatam ...	9	15	6.51	913	39.64	45	19.54	6	2,280	23	467	204.82	10	4.34
80	Vizianagram ...	4	10	4.95	802	39.66	10	4.95	...	1,966	56	370	188.19	23	11.37
81	Anakapalle ...	2	4	4.27	477	50.96	...	...	...	900	36	179	198.88	12	12.82
82	Chicacole ...	...	...	...	...	...	...	...	...	674	8	107	158.75	7	10.26
	Bimlipatam ...	...	...	...	...	...	...	...	...	423	17	71	167.85	7	15.90
	Total for the Municipalities ...	245	738	4.33	65,785	88.77	1,072	6.34	370	161,115	8,086	29,317	181.87	2,054	12.14

Details of Maternity and Child-welfare Work in Municipalities in the year 1939—cont.

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Serial number and names of municipalities.	Brought under care.				Home Visits.				Clinics.				Mothers' classes.		Other activities.													
	Total number of mothers.		Ante-natal moth-ers.		Infants.		Pre-School.		Medical Officers.		Health Visitors.		Midwives.		Attendance.		Nursing Mothers.		Number.		Attendance.		Lantern lectures, etc.		Schools visit-ed for health education.		Attendance.	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
32. Periyakulam	508	468	238	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33. Kodaikanal	256	256	256	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34. Calicut	1,598	1,097	797	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35. Palghat	1,411	708	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36. Cannanore	612	612	612	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37. Tellicherry	1,015	1,015	1,029	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38. Cochin	302	774	151	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39. Nellore	356	196	160	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40. Ottacamund	879	816	277	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41. Coonoor	413	370	182	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42. Vellore	1,166	647	519	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43. Tiruvannamalai	426	279	146	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
44. Tirupattur	2,710	2,087	489	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45. Tirupur	810	810	279	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
46. Tirupattur	400	252	148	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47. Sivalliputtur	1,231	1,083	376	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48. Karaikudi	3,663	3,008	1,608	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
49. Salem	2,726	1,828	867	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50. Cuddalore	434	494	302	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
51. Villupuram	457	335	235	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52. Madurai	1,474	1,293	608	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53. Udipi	440	350	171	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
54. Kumbakonam	4,340	3,685	675	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
55. Negapatam	339	333	268	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
56. Mayavaram	392	392	235	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57. Manargudi	733	630	425	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
58. Tuticorin	831	617	617	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59. Tirunelveli	1,213	982	594	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
60. Palamcottah	1,378	635	372	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61. Trichinopoly	1,602	433	1,340	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
62. Srirangam	...	572	416	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63. Viragapattam	1,275	1,070	512	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64. Viragapattam	2,486	1,862	324	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65. Anakkapalle	370	370	144	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Municipalities	99,731	77,548	43,932	29,386	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Districts	11,067	36,375	19,345	7,309	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grand total for the Province	110,798	114,222	63,277	36,705	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

• Attendance for bathing and feeding.

ANNEXURE

	Barua.	Calingsapatam.	Bimlipatam.	Cocanada.	Masulipatam.	Cuddalore.	Porto Novo.	Tranquebar.	Negapatam.	Tirumalaivasal.	Topputhurai and Point Calimere.	Mutpet.	Adirampatnam.
<i>Incoming vessels.</i>													
1. (a) Number of vessels arriving from foreign ports—													
Cargo	9	16	98	87	108	..	..	7	..	..	..	..	109
Passenger	..	..	..	..	22	1	..	24	..	..	..	..	..
(b) Number of vessels arriving from coastal ports—													
Cargo	1	3	65	14	44	..	10	69	181	..	..	..	8
Passenger	101	92	53	..	..	46	..	25	..	..	..	..	..
2. Number of vessels inspected—													
(a) From foreign ports													
(i) Cargo	..	..	1	..	..	..	..	..	..	..	..	..	..
Number of passengers inspected.	..	..	..	..	..	..	..	..	..	..	..	..	..
Number of crew inspected.	..	..	..	..	..	..	..	..	..	..	..	..	..
(ii) Passenger	..	..	2	..	..	..	..	2	..	..	..	..	..
Number of passengers inspected.	..	..	2	..	..	..	..	1,888	..	..	..	..	..
Number of crew inspected.	..	..	..	..	..	..	..	374	..	..	..	..	..
(b) From coastal ports—													
(i) Cargo	..	..	..	..	..	..	..	1	2	..	..	..	..
Number of passengers inspected.	..	..	..	..	..	..	..	..	..	..	..	..	..
Number of crew inspected.	..	..	..	..	..	..	..	82	..	..	..	..	..
(ii) Passenger	..	..	..	..	..	458	..	20	..	..	..	..	..
Number of passengers inspected.	..	..	..	..	..	..	..	14,155	..	..	..	..	..
Number of crew inspected.	..	..	..	..	..	..	..	4,718	..	..	..	..	..
3. Infectious diseases on such vessels—													
Cases	..	..	..	..	..	..	..	†3	..	..	..	..	..
Deaths	..	..	..	..	..	..	..	2	..	..	..	..	..
4. Deaths from non-infectious diseases on these vessels.	..	..	..	..	..	..	581	..	..	..	..	..	..
5. Vaccination and inoculations.	..	..	..	..	..	..	vaccinations.	..	..	..	..	..	..
6. Disinfection (a) Part of the ship and (b) Passengers' and crews' effects.	..	..	..	..	..	..	..	..	..	..	..	..	..
7. Isolation, observation and Surveillance.	..	..	..	..	..	..	..	†	..	..	..	..	..

* Indicates that remarks have been given in the footnote under the name of the port—vide pages 74 and 75.
† Chicken-pox.

H.

[illegible]

ANNEXURE

[illegible]

* Indicates that remarks have been given in the footnote under the name of the port pages 74 and 75.
† On account of chicken-pox.

H—cont.

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ANNEXURE

	Baruv.	Calingapetam.	Bimlipatam.	Cocanada.	Masilipatam.	Cuddalore.	Porto Novo.	Tranquebar.	Negapatam.	Tirumalaivasal.	Topputhurai and Point Calimere.	Muttupet.	Adirampatnam.
<i>Miscellaneous transactions— cont.</i>													
18. Port area—													
(a) Sanitation..	..	..	Good	Satis- factory.	*	*	..	..	*	Good	..	..	satis- factory.
(b) Anti-rat measures.	..	..	..	..	..	*	..	..	..	..	..	..	..
(c) Anti-mosquito measures.	..	..	*	..	..	*	..	..	..	..	..	..	..
(d) Inspection of food.	..	..	..	..	..	*	..	..	..	..	..	..	..
(e) Water-supply for ships (sources, measures taken for purification).	..	..	No provi- sion.	*	..	*	..	..	*	*	..	..	..
19. Medical advice to ships at sea.	..	..	Given when required	Given twice.	..	..	..	..	*	..	..	..	..
20. General remarks..	*	..	..	*	..	..	..	..	*	*	..	..	*
21. Port Health personnel..	..	..	..	P.H.O. only.	*	*	..	*	*	*	..	..	*

* Indicates that remarks have been given in the foot-note.

* Indicates that remarks have been given in the footnote under the name of the port pages 74 and 75.

H—cont.

[illegible]

§ Under the President, Panchayat Board. || Adequate.

FOOT-NOTE ON

Baruva, Serial No. 20.—Accidents of the passengers and crew are attended by the Port Health Officer and Bill Bimlipatam, *Serial No. 18 (c).*—All stagnated places and drains are malarialled.

Cocanada, Serial No. 18 (c).—Adequate protected water from the city water-supply is made to the ships.

Serial No. 20.—Hitherto the Port Health Officer, Cocanada, was given a peon, but the post was abolished in an allowance of Rs. 5 to the present man doing the port health duty and reinstatement of the post of the peon. is kept in a good working condition.

Masulipatam, Serial No. 18 (a).—Sweeping work is being done regularly by the Municipal Agency.

Serial No. 18 (c).—No drinking water was taken by these vessels at this port.

Serial No. 21.—Sri Udayachandra Padhi, L.M. & S., was Port Health Officer from 1st January 1939 to 10th Cuddalore, *Serial No. 18 (a).*—This is attended to by the Municipality.

Serial No. 18 (c).—There is an anti-mosquito scheme worked by the Municipality.

Serial No. 18 (d).—This is being attended to by the Port Health Officer whenever there is any necessity.

Serial No. 18 (c).—Water is being taken from the protected water-supply.

Serial No. 21.—Dr. C. Balakrishna Chetti, M.B.B.S. (Bombay), D.P.H. (Camb.), continued to be the Port Officer and a peon on Rs. 12 per mensem.

Tranquebar, Serial No. 20.—Dr. R. Gopala Mudaliar, Sub-Assistant Surgeon, Porayar, continues to be the Port Negapatam *Serial No. 7.*—The cases of chickenpox detected in the steamer were landed and isolated in the *Serial No. 12.*—The portions of the ship occupied by the passengers were disinfected. The personal belongings *Serial No. 16.*—Inspection of provisions is done whenever the Port Health Officer inspects the steamers.

Serial No. 18 (a).—Attended to by the Port Conservancy Board.

Serial No. 13 (d).—No sale of food materials is allowed in the port area.

Serial No. 18 (c).—The ships do not take water from this port.

Serial No. 19.—The agents of the various steamship companies make their own arrangements.

Serial No. 20.—There is a Port Advisory Committee which meets once in three months or more frequently if assisted and make recommendations to the various authorities concerned.

This is the last port of call for the outgoing Madras Malay mail steamers and first port of call for the incoming *Serial No. 21.*—Dr. M. S. Lakshmanan, L.M.S., D.T.M. (Cal.), continued to be the Port Health Officer till 27th mensem and two boatmen on Rs. 12 each per mensem and a part-time nurse on Rs. 1 per mensem.

Tirumalavasi, Serial No. 18 (c).—Steamers do not take water in this port. Only native crafts, schooners, *Serial No. 20.*—The Port Health Officer does not go to Tirumalavasi for inspecting the vessels. Bills of Health *Adirampattam, Serial No. 20.*—The port has no passenger traffic and no steamers call at this port but only *Devipattam, Serial No. 20.*—The port is opened for only coastal trade.

Kuluskarapattam, Serial No. 18 (c).—Good and fresh water used to be taken in clean wooden casks. Inspected *Serial No. 21.*—Only the Medical Officer in charge of the Local Fund dispensary is the Port Health Officer for *Tuticorin, Serial No. 3.*—One case of chicken pox (lascar in S. S. "Clan Macartagart" on 30th January 1939) isolated in the Infectious Diseases Hospital at Tuticorin. Usual preventive sanitary measures taken. They *Serial No. 12 (b).*—The kit, beddings and clothings of the passengers embarking in the bi-weekly Tuticorin- steamer has made 103 voyages during the year. Also the baggages of any new crew joining a vessel are disinfected *Serial No. 18.*—The port area is kept in a satisfactory sanitary state. The Port Trust, Tuticorin, maintains sanitation. No special anti-rat campaign or anti-mosquito measures is taken. The ships do not take water at *Serial No. 19.*—Members of the crew suffering from any illness are given necessary medical advice and treat- *Serial No. 21.*—The staff consists of—
1. Port Health Officer—The Civil Assistant Surgeon in charge of the Government Hospital, Tuticorin, is
2. One Assistant Port Health Officer—One Sub-Assistant Surgeon on Rs. 165 per mensem.
3. One engine driver in charge of disinfection plant on Rs. 30 per mensem.

Calicut, Serial No. 18 (a).—There is no separate conservancy staff for the port area.

Serial No. 18 (c).—Water is not taken at this port.

Serial No. 20.—All the vessels that called at this port were cargo vessels. There is very little of passenger As has been pointed out under paragraph 18, there is no special staff appointed by the Port authorities for of removal of rubbish, destruction of rats and anti-mosquito measures.

Serial No. 21.—Dr. M. K. Jacob, M.B.B.S., D.P.H., was Port Health Officer from 1st January 1939 to 11th L.M.S., from 16th August 1939 onwards.

Cannanore, Serial No. (a).—Necessary care is taken to keep the Port area in neat and tidy condition.

Serial No. (b).—The godowns situated in the port area have been periodically inspected and instructions have *Serial No. (c).*—There was anti-mosquito campaign in the municipal area to minimize the mosquito nuisance *Serial No. 18 (d).*—Food stuff stored in the godowns was inspected during the year occasionally.

Serial No. 20.—18 bills of Health have been granted to different steamers sailing to various ports on requisition during the year.

Malpe, Serial No. 18 (c).—Ships obtain their supply of fresh water from the well attached to Light House at *Serial No. 21.*—The Medical Officer, Government Hospital, Udipi, is the ex-officio Port Health Officer of the *Hungercottah, Serial No. 21.*—The Medical Officer, Government Hospital, Udipi, is the ex-officio Port Health *Coondapoor, Serial No. 18 (a).*—There is a Government subsidized rural dispensary close to the port area and *Serial No. 18 (c).*—There is a fresh water well in the Customs compound.

ANNEXURE H.

of Health of the town is granted to the ships that go out of the port.

1935. As for clerical duties the municipal clerk is doing the duty and he is not given any allowance. I propose At present the Port Officer is looking after the disinfection plant attached to the port and I am of opinion that it

August 1939 and Sri V. Kothandaraman, L.M.P., from 11th August 1939 onwards.

Health Officer, Cuddalore, during the year under report. The Port Health staff consisted of one First-class Health

Health Officer, Tranquebar.

Municipal Infectious Diseases Hospital.

of the contacts of the patients were disinfected.

necessary, and have power to take cognizance of any specific or general grievance of the emigrants assisted or not

mail steamers, there being a regular mail and passenger traffic between Malaya and India.

July 1939 and Dr. M. K. Jacob, M.B.B.S., D.P.H. (Cal.), took charge on 27th July 1939. The staff consists of one

cargo boat, etc., take water from the port well which is inspected and kept in a good sanitary condition. are granted on the requisition by the Port Conservator, Tirumalavasi.

sailing crafts with cargo.

often.

the port and there is no other establishment.

and two cases of chickenpox (two European cadets) in S. S. "Gaisroppa" on 21st October 1939. They were recovered.

Colombo mail steamer were regularly disinfected in the steam disinfector before embarking. This passenger mail before they enter their vessels.

scavenging and sweeping services of the Port Trust area and the Port Health Officer is responsible for the general this port.

ment when there is no Medical Officer on board.

the Port Health Officer.

traffic at this port.

attending to the sanitation of the port area, and what little is done by the Municipal Public Health staff, by way

February 1939. Rao Sahib T. C. Joseph, L.M.S., from 12th February 1939 to 15th August 1939 and Dr. T. C. John

been imparted to the merchants to keep the godowns under rat proof.

and the same has been extended to the port area also.

made by the agents of the concerned companies in this town. The port was quite free from epidemic diseases

Daria Bahadur Ghar Island and port well attached to passenger shed in the main land. port.

Officer of this port.

there is also a panchayat board who look after the sanitation of the town of Gangolli.

ANNEXURE J.

Births registered in the Districts exclusive of Municipalities and in the Municipalities during each month of the year 1939.

Months.	Number of Births registered.								Percentage of quarterly births to total.
	Districts exclusive of Municipalities.		Municipalities.		Total.		(Quarterly births.		
	Males.	Females.	Males.	Females.	Males.	Females.			
January	...	55,206	53,159	5,904	5,688	61,110	58,847	20.6	
February	...	48,842	45,511	5,180	4,906	54,022	50,747		
March	...	57,517	54,747	6,162	6,079	63,679	60,826		
April	...	59,332	56,330	6,236	5,471	65,568	62,701		
May	...	65,900	62,018	6,465	6,303	72,425	68,221		
June	...	72,202	68,940	6,601	6,214	78,803	75,154		
July	...	80,110	76,370	7,480	6,995	87,600	83,365		
August	...	78,726	75,252	8,019	7,777	86,745	83,069		
September	...	72,014	68,393	7,765	7,359	79,779	76,252		
October	...	67,324	65,832	7,572	7,333	74,896	73,365		
November	...	67,557	61,974	7,887	6,959	75,446	68,933		
December	...	61,455	59,825	7,418	7,302	68,873	67,127		
Total	...	782,945	750,691	82,199	78,916	865,144	829,607	25.1	
								100.0	

ANNEXURE K

Age.	Rural areas.						Urban areas.						Total (Rural and Urban).					
	Males.		Females.		Total.		Males.		Females.		Total.		Males.		Females.		Total.	
	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.	Per-1,000.
Under 1 week	38.95	27.30	61.23	30.01	29.71	52.72	33.34	30.60	59.94	33.34	30.60	59.94	33.34	30.60	59.94	33.34	30.60	59.94
1 week and under one month	18.07	14.88	32.95	15.68	12.50	28.27	17.70	14.53	32.23	17.70	14.53	32.23	17.70	14.53	32.23	17.70	14.53	32.23
1 month and under 6 months	21.85	19.03	41.47	27.82	21.97	51.30	22.76	20.30	43.06	22.76	20.30	43.06	22.76	20.30	43.06	22.76	20.30	43.06
6 months and under 12 months	20.65	19.07	39.72	22.60	20.06	43.27	20.95	19.31	40.26	20.95	19.31	40.26	20.95	19.31	40.26	20.95	19.31	40.26
Total under one year	14.51	86.87	175.38	98.12	80.04	175.16	14.76	80.74	175.50	14.76	80.74	175.50	14.76	80.74	175.50	14.76	80.74	175.50

Note.—The death-rates for all periods under one year have been calculated per 1,000 live-births.

ANNEXURE L.

Birth and death rates for Districts (inclusive of Municipalities) calculated on the census population and on the estimated populations arrived at by Geometric Progression method and natural increase method.

Districts.	Census popula- tion.	Estimated mid-year population.		Birth rate as per			Death rate as per		
		Geometric Pro- gression method.	Natural increase method (excess of births over deaths).	Census population.	Geometric progression method	Natural increase method.	Census population.	Geometric progression method.	Natural increase method
Anantapur	1,050,411	1,146,215	1,179,913	39.86	36.32	35.49	36.11	33.09	32.15
Bellary	969,774	1,081,114	1,067,978	42.96	38.54	39.01	31.43	28.20	28.55
Chingleput	1,653,776	1,820,811	1,827,410	36.11	32.80	32.68	25.55	23.24	23.16
Chittoor	1,447,103	1,572,740	1,613,252	37.35	34.37	33.51	21.60	19.87	19.37
Coimbatore	2,445,064	2,700,704	2,791,745	39.85	36.08	34.90	21.31	19.34	18.71
Cuddapah	949,397	1,010,098	1,064,106	37.31	35.07	33.29	29.37	27.61	26.21
Godavari, East { Plains	1,680,053	1,918,994	1,862,543	34.69	30.37	31.29	28.54	24.99	25.75
Agency	240,529	281,303	* 265,055	37.42	32.00	33.96	30.04	25.69	27.27
Godavari, West	1,223,056	1,407,830	1,374,000	37.66	32.72	33.52	30.70	26.69	27.35
Guntur	2,035,660	2,270,110	2,247,077	41.07	36.83	37.21	29.62	26.58	26.85
Kistna	1,254,208	1,434,848	1,407,275	41.44	36.23	36.94	28.27	24.72	25.21
Kurnool	1,024,961	1,138,651	1,154,956	42.99	38.70	38.16	34.18	30.79	30.36
Madras	647,230	783,008	682,713	48.92	40.44	46.38	46.05	38.07	43.66
Madura	2,195,747	2,386,212	2,432,411	41.49	38.18	37.46	22.18	20.43	20.04
Malabar	3,533,944	3,991,071	3,997,499	35.13	31.11	31.06	22.91	20.29	20.25
Nellore	1,486,222	1,585,949	1,650,844	39.08	36.62	35.18	26.82	25.12	24.14
Nilgiris, the	168,017	221,787	182,516	36.86	27.92	33.93	23.41	17.74	21.55
North Arcot	2,266,989	2,543,430	2,599,613	41.72	37.19	36.38	23.01	20.52	20.08
Ramnad	1,838,955	1,958,333	2,000,490	37.04	34.78	34.05	21.87	20.54	20.09
Salem	2,433,972	2,747,053	2,755,919	38.18	33.83	33.72	19.47	17.25	17.19
South Arcot	2,454,507	2,585,905	2,651,688	35.04	33.26	32.43	22.03	20.94	20.42
South Kanara	1,372,241	1,498,983	1,562,712	36.39	33.32	31.96	20.36	18.66	17.90
Tanjore	2,385,920	2,438,970	2,514,164	32.36	31.66	30.71	22.78	22.30	21.63
Tinnevely	2,046,907	2,185,253	2,270,458	41.44	38.82	37.36	26.35	24.72	23.79
Trichinopoly	1,913,245	1,922,840	2,086,979	38.55	38.36	35.34	24.54	24.45	22.53
Vizagapatam	3,267,309	3,661,088	† 3,624,649	40.69	36.32	36.68	24.28	23.19	23.42
Total for the province ..	43,985,197	47,927,200	48,867,965	38.53	35.36	34.68	25.26	23.19	22.74

* As separate figures of births and deaths for East Godavari Agency for 1931 were not available, the excess of births and deaths for East Godavari Plains and Agency was divided in the ratio of the populations of Plains and Agency portions for 1931.

† The excess of births and deaths in the portion of old Ganjam district added to Vizagapatam for the period 1931-1935 was arrived at by taking the proportionate excess of births over deaths in the Ganjam district as a whole in the ratio of population of the part retained to that of whole population.

APPEN

VITAL STATISTICS OF THE

No. I.—Statement showing the Births registered in the

Number.	Population as per Census of 1931.			Districts.	Population for which Birth and Death returns were received.		
	Males.	Females.	Total.		Males.	Females.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	539,534	510,877	1,050,411	Anantapur	539,534	510,877	1,050,411
2	493,018	476,756	969,774	Bellary	493,018	476,756	969,774
3	837,161	817,954	1,655,115	Chingleput	835,961	817,815	1,653,776
4	738,325	708,778	1,447,103	Chittoor	738,325	708,778	1,447,103
5	1,218,224	1,226,840	2,445,064	Coimbatore	1,218,224	1,226,840	2,445,064
6	483,914	465,483	949,397	Cuddapah	483,914	465,483	949,397
7(a)	828,489	851,564	1,680,053	Godavari, { Plains.	828,489	851,564	1,680,053
7(b)	120,795	119,734	240,529	Godavari, { Agency.	120,795	119,734	240,529
8	602,327	620,729	1,223,056	Godavari, West	602,327	620,729	1,223,056
9	1,028,993	1,006,667	2,035,660	Guntur	1,028,993	1,006,667	2,035,660
10	635,704	618,504	1,254,208	Kistna	635,704	618,504	1,254,208
11	520,238	504,723	1,024,961	Kurnool	520,238	504,723	1,024,961
12	341,223	306,007	647,230	Madras	341,223	306,007	647,230
13	1,081,437	1,114,310	2,195,747	Madura	1,081,437	1,114,310	2,195,747
14	1,716,138	1,817,806	3,533,944	Malabar	1,716,138	1,817,806	3,533,944
15	744,322	741,900	1,486,222	Nellore	744,322	741,900	1,486,222
16	91,928	77,402	169,330	Nilgiris, The	90,824	77,193	168,017
17	1,131,610	1,135,379	2,266,989	North Arcot	1,131,610	1,135,379	2,266,989
18	872,177	966,778	1,838,955	Ramnad	872,177	966,778	1,838,955
19	1,211,743	1,222,229	2,433,972	Salem	1,211,743	1,222,229	2,433,972
20	1,225,072	1,229,435	2,454,507	South Arcot	1,225,072	1,229,435	2,454,507
21	663,950	708,291	1,372,241	South Kanara	663,950	708,291	1,372,241
22	1,143,738	1,242,182	2,385,920	Tanjore	1,143,738	1,242,182	2,385,920
23	987,159	1,069,748	2,046,907	Tinnevely	987,159	1,059,748	2,046,907
24	934,867	978,378	1,913,245	Trichinopoly	934,867	978,378	1,913,245
25	1,577,947	1,689,362	3,267,309	Vizagapatam	1,577,947	1,689,362	3,267,309
26	98,801	97,367	194,168	Vizagapatam Agency.	...	...	...
	21,866,834	22,315,183	44,182,017	Grand total for the Province.	21,767,729	22,217,408	43,985,197
	3,108,112	3,082,597	6,190,709	Total of circles in town the Province.	3,108,112	3,082,597	6,190,709
	18,758,722	19,232,586	37,991,308	Total of circles in rural the Province.	18,659,617	19,134,811	37,794,488

DIX I.

GENERAL POPULATION

Districts in the Province of Madras during the year 1939.

Number of births registered (exclusive of still-births).			Ratio of births per 1,000 of population.			Mean ratio of births per 1,000 during the previous five years.			Number.
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
21,298	20,576	41,874	20.27	19.59	39.86	21.25	20.41	41.64	1
21,240	20,424	41,664	21.90	21.06	42.96	20.83	20.06	40.89	2
30,707	29,018	59,723	18.56	17.55	36.11	18.90	18.06	36.96	3
27,280	26,765	54,055	18.86	18.43	37.35	18.34	17.67	36.01	4
48,945	47,498	97,443	20.43	19.42	39.85	19.81	18.84	38.65	5
17,948	17,477	35,425	18.90	18.41	37.31	19.05	18.27	37.32	6
29,798	28,483	58,281	17.74	16.95	34.69	19.35	18.43	37.78	7(a)
4,619	4,383	9,002	19.20	18.22	37.42	19.69	18.96	38.65	7(b)
28,502	22,557	46,059	19.22	18.44	37.66	21.13	20.05	41.18	8
42,779	40,834	83,613	21.01	20.06	41.07	20.18	19.16	39.34	9
28,677	25,303	51,980	21.27	20.17	41.44	22.18	21.11	43.29	10
22,545	21,526	44,071	21.99	21.00	42.99	21.65	20.93	42.58	11
16,183	15,482	31,665	25.00	23.92	48.92	23.95	22.80	46.75	12
28,781	44,336	91,117	21.30	20.19	41.49	18.99	18.08	37.07	13
28,316	60,844	124,160	17.92	17.21	35.13	19.38	18.51	37.89	14
29,698	28,383	58,081	19.98	19.10	39.08	18.66	17.63	36.29	15
3,185	3,008	6,193	18.96	17.90	36.86	17.43	16.79	34.27	16
48,586	45,992	94,578	21.43	20.29	41.72	20.82	20.01	40.83	17
34,864	33,259	68,113	18.95	18.69	37.04	16.93	16.21	33.14	18
47,828	45,611	92,939	19.44	18.74	38.18	18.80	18.01	36.81	19
44,074	41,933	86,007	17.95	17.09	35.04	16.77	15.97	32.74	20
25,431	24,514	49,945	18.53	17.86	36.39	19.56	18.60	38.16	21
89,405	87,817	177,222	16.51	15.85	32.36	15.88	15.11	30.99	22
42,954	41,878	84,832	20.98	20.46	41.44	18.99	18.11	39.10	23
37,237	36,522	73,759	19.46	19.09	38.55	18.20	17.30	35.50	24
67,764	65,186	132,950	20.74	19.95	40.69	19.81	18.91	38.72	25
...	...	...	...	...	...	...	...	...	26
865,144	829,607	1,694,751	19.67	18.86	38.53	19.29	18.41	37.70	
182,474	126,565	259,039	21.40	20.44	41.84	19.98	19.02	39.00	
732,670	703,042	1,435,712	19.39	18.60	37.99	19.18	18.31	37.49	

No. I (a)—Statement showing the still-births registered according to classes and sex in the municipalities in the Province of Madras during the year 1939 (prescribed in G.O. Ms. No. 1748, P.H., dated 18th July 1934)—cont.

Serial number.	Municipalities.	Still-births.										Percentage of total to live births.	
		Hindus.		Muham- madians.		Christi- ans.		Other classes.		Total.			
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.		Total.
<i>Ramanad District.</i>													
55	Virudunagar	52	29	1	1	2	1	..	..	55	31	86	5.8
56	Srivilliputtur	18	11	..	..	..	..	..	..	18	11	29	2.2
57	Karaikudi	34	22	2	1	..	2	..	..	38	25	61	7.1
58	Devakottai	15	10	..	1	1	..	..	..	16	11	27	4.1
59	Sivakasi	13	5	..	..	..	..	..	..	13	5	18	3.1
<i>Salem District.</i>													
60	Salem	137	71	9	11	4	3	..	..	150	85	235	6.0
<i>South Arcot District.</i>													
61	Cuddalore	47	29	4	1	1	1	4	6	56	37	93	3.9
62	Chidambaram	24	27	3	3	..	..	..	..	37	31	68	6.7
63	Villupuram	13	5	1	2	..	..	..	..	14	7	21	2.8
<i>South Kanara District.</i>													
64	Mangalore	37	29	12	6	15	11	..	..	64	46	110	4.6
65	Udupi	7	9	..	..	2	..	1	..	10	9	19	2.7
<i>Tanjore District.</i>													
66	Tanjore	85	81	4	5	6	4	..	..	95	80	185	6.5
67	Kumbakonam	167	120	7	7	10	8	..	..	184	136	319	12.3
68	Negapatam	35	22	13	12	..	..	..	..	48	34	82	5.2
69	Mayavaram	20	16	1	..	..	1	..	..	21	17	38	3.3
70	Tiruvartur	14	8	..	..	..	..	..	..	14	8	22	2.2
71	Manargudi	49	38	..	2	..	1	3	4	52	45	97	1.5
<i>Tinnevely District.</i>													
72	Tinnevely	27	21	2	2	7	8	..	..	36	31	67	2.3
73	Tinnevely	47	24	4	7	1	1	..	..	52	32	84	4.0
74	Palamottah	65	40	7	7	2	5	..	..	74	52	126	1.0
<i>Trichinopoly District.</i>													
75	Trichinopoly	116	58	16	11	16	24	..	..	148	93	241	4.2
76	Strangam	24	28	..	1	..	..	..	..	24	28	52	5.8
77	Karur	16	18	..	1	..	..	..	..	17	19	36	3.9
<i>Vizagapatam District.</i>													
78	Vizagapatam	10	13	..	..	..	..	..	..	10	13	23	1.0
79	Vizagapatam	32	23	1	1	..	..	..	..	33	23	56	2.8
80	Anakapalle	18	18	..	..	..	..	..	..	18	18	36	4.0
81	Chiscole	3	5	..	..	..	..	..	..	3	5	8	1.2
82	Bimlipatam	11	6	..	..	..	..	..	..	11	6	17	4.0
Grand total		3,735	2,875	511	464	287	281	15	18	4,488	3,588	8,086	6.0

No. II.—Statement showing Deaths registered in the Districts in the Province of Madras during the year 1939.

Number. (1)	Districts. (2)	Area in square miles. (3)	Population per square miles. (4)	Number of deaths registered.			Ratio of deaths per 1,000 of population from.			
				Males. (5)	Females. (6)	Total. (7)	Cholera. (8)	Smallpox. (9)	Plague. (10)	Fever. (11)
1	Anantapur	6,741	155.8	19,113	18,820	37,933	.001	0.05	..	11.90
2	Bellary	5,713	169.7	15,562	14,926	30,488	.08	0.01	..	10.22
3	Chingleput	3,091	535.1	21,512	20,803	42,315	.01	0.51	..	3.89
4	Chittoor	5,901	245.2	15,989	15,284	31,253	.003	0.09	0.02	5.81
5	Coimbatore	7,085	345.1	26,769	25,476	52,245	.003	0.02	0.02	4.38
6	Cuddapah	5,919	160.4	14,020	13,872	27,892	.01	0.03	..	15.35
7	Godavari, Plains	2,544	660.0	24,064	23,895	47,959	.01	0.01	..	10.78
8	Godavari, East.	3,675	65.4	3,727	3,501	7,228	.02	..	..	16.80
9	Godavari, West	2,361	518.0	18,987	18,593	37,580	.01	0.01	..	9.84
10	Guntur	5,757	353.6	31,125	29,210	60,335	.01	0.07	..	10.26
11	Kistna	3,547	353.5	18,166	17,309	35,475	.05	0.05	..	8.72
12	Kurnool	7,581	135.2	17,818	17,241	35,059	.008	0.10	..	17.33
13	Madras	29	22,194.8	15,048	14,760	29,808	.003	0.41	..	3.61
14	Madura	4,912	446.8	25,149	23,596	48,745	.003	0.001	0.04	3.41
15	Malabar	5,794	609.8	40,904	40,058	80,962	.003	0.03	0.001	5.23
16	Nellore	7,949	186.9	20,504	19,342	39,846	.003	0.04	..	7.57
17	Nilgiris, The	982	169.1	2,057	1,877	3,934	..	..	0.06	7.86
18	North Arcot	4,848	487.6	26,514	25,832	52,196	.01	0.13	..	5.00
19	Ramnad	4,819	381.5	20,339	19,831	40,220	.001	0.01	..	6.87
20	Salem	7,058	344.7	24,019	23,359	47,378	.001	0.06	0.06	5.71
21	South Arcot	4,208	583.3	27,508	26,634	54,140	.35	0.15	..	4.01
22	South Kanara	4,021	341.2	14,059	13,919	27,978	.004	0.01	0.002	6.64
23	Tanjore	3,742	637.5	26,687	27,694	54,381	.34	0.13	..	2.25
24	Tinnevely	4,315	474.3	27,203	26,808	54,011	.01	0.01	..	4.72
25	Trichinopoly	4,314	443.4	23,599	23,418	47,017	.07	0.04	..	4.22
	Vizagapatam	5,968	547.2	43,033	41,865	84,903	.005	0.003	..	12.49
	Grand total for the Province	125,438	352	563,478	547,803	1,111,281	0.05	0.07	0.007	7.00
	Total of town circles in the Province	..	..	92,005	86,958	178,963	0.02	0.14	0.01	4.45
	Total of rural circles in the Province	..	..	471,473	460,845	932,318	0.05	0.06	0.01	7.42

Number.	Districts.	Ratio of deaths per 1,000 of population from—cont.						Mean ratio of deaths per 1,000 of population.			Number.		
		Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	Deaths from child birth.	All other causes.	All causes.			Males.	Females.	Total.	
							Males.	Females.	Total.				
		(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
1	Anantapur	2.23	2.25	0.56	0.61	18.50	35.42	36.83	36.11	24.63	25.51	25.02	1
2	Bellary	2.07	2.16	0.33	0.33	16.23	31.50	31.31	31.43	29.19	29.03	28.72	2
3	Chingleput	1.98	2.33	0.28	0.31	16.25	25.73	25.44	25.55	21.09	23.37	23.74	3
4	Chittoor	2.32	1.77	0.34	0.31	10.92	21.65	21.53	21.60	21.47	21.66	21.56	4
5	Coimbatore	2.24	3.29	0.37	0.23	10.79	21.97	20.76	21.31	21.71	20.71	21.20	5
6	Cuddapah	1.39	1.29	0.33	0.45	10.52	28.97	26.80	29.37	22.89	23.50	23.19	6
7	Godāvāri, { Plains	2.07	2.34	0.28	0.36	12.64	29.01	28.06	28.54	24.67	23.56	24.07	7
	East, { Agency	1.85	3.17	0.31	0.38	7.52	30.85	29.23	30.04	27.50	26.27	26.89	
8	Godāvāri, West	2.52	2.83	0.26	0.43	14.72	31.52	29.95	30.70	26.68	25.18	25.91	8
9	Guntūr	2.56	2.67	0.35	0.41	13.30	30.24	29.02	29.62	25.49	25.44	24.97	9
10	Kistna	2.26	2.71	0.27	0.48	13.73	28.57	27.98	28.27	26.03	25.65	25.89	10
11	Kurnool	1.48	1.61	0.36	0.41	11.84	34.25	34.15	34.18	28.57	27.54	28.56	11
12	Madras	5.60	13.23	0.39	0.38	22.42	44.10	48.23	46.05	37.85	38.69	38.65	12
13	Madura	1.44	3.56	0.39	0.28	13.05	23.25	21.17	22.18	24.90	22.88	23.78	13
14	Malabar	2.41	2.36	0.33	0.25	12.29	23.83	22.03	22.91	22.02	19.79	20.88	14
15	Nellore	2.64	1.51	0.35	0.31	14.40	27.54	26.07	26.82	24.01	22.52	23.26	15
16	Nilgiris, The	3.14	4.91	0.24	0.23	6.98	22.64	24.31	23.41	23.47	24.35	23.88	16
17	North Arcot	2.27	2.20	0.36	0.29	12.75	23.43	22.62	23.01	23.42	22.86	23.14	17
18	Ramnad	1.61	2.56	0.24	0.31	10.27	23.31	20.56	21.87	23.98	21.57	22.72	18
19	Salem	0.87	1.45	0.35	0.25	10.74	19.82	19.11	19.47	20.72	20.28	20.51	19
20	South Arcot	1.58	1.74	0.25	0.32	13.64	22.45	21.66	22.03	23.92	23.11	23.52	20
21	South Kanara	1.07	1.64	0.37	0.34	10.30	21.17	19.65	20.36	22.92	21.10	21.38	21
22	Tanjore	0.96	1.19	0.32	0.51	17.10	23.33	22.29	22.78	25.43	24.02	24.70	22
23	Tinnevely	1.89	2.20	0.22	0.41	16.80	27.55	25.29	26.35	27.70	25.19	26.41	23
24	Trichinopoly	1.79	2.14	0.35	0.44	15.49	25.24	23.93	24.54	24.43	23.45	24.08	24
25	Vizagapatam	1.54	1.22	0.25	0.29	9.31	27.27	24.78	24.28	28.30	25.73	26.98	25
	Grand total for the Province ...	1.93	2.32	0.32	0.35	13.21	25.88	24.65	25.26	24.77	23.47	24.12	
	Total of town circles in the Province ...	2.95	4.90	0.46	0.50	15.46	29.60	28.21	28.91	27.79	26.63	27.22	
	Total of rural circles in the Province ...	1.76	1.90	0.30	0.33	12.85	25.27	24.09	24.67	24.27	22.97	23.61	

No. III.—Deaths registered in the Districts, exclusive of Municipalities and in the

Serial number. (1)	Municipalities. (2)	January. (3)	February. (4)	March. (5)	April. (6)	May. (7)
<i>Anantapur District.</i>						
1	Anantapur	23	27	35	39	39
2	Hindupur	33	30	24	36	26
3	Talipatri	38	24	37	25	30
<i>Bellary District.</i>						
4	Bellary	119	120	144	121	144
5	Adoni	82	69	80	69	62
6	Hospet	35	36	73	42	44
<i>Chingleput District.</i>						
7	Conjeeveram	173	172	172	149	165
8	Saidapet	107	80	97	104	100
9	Chingleput	46	36	37	28	37
<i>Chittoor District.</i>						
10	Chittoor	57	55	61	50	54
11	Tirupati	47	34	43	48	61
<i>Coimbatore District.</i>						
12	Coimbatore	215	200	227	193	199
13	Erode	33	60	66	55	92
14	Pollachi	75	51	78	62	57
15	Dharapuram	49	27	31	25	16
16	Tiruppur	74	44	55	49	44
17	Udumalpet	43	21	29	21	28
<i>Cuddapah District.</i>						
18	Cuddapah	65	44	54	53	56
19	Proddatur	31	21	40	40	44
<i>Gōdāvari East District.</i>						
20	Cocanada	154	183	168	135	126
21	Rajahmundry	153	143	161	158	168
22	Peddapuram	35	30	27	39	26
<i>Gōdāvari West District.</i>						
23	Ellore	96	83	117	81	90
24	Palacole	56	31	38	36	37
<i>Guntur District.</i>						
25	Guntur	203	171	184	202	219
26	Tenali	82	78	100	68	69

Municipalities in the Province of Madras during each month of the year 1939.

June. (8)	July. (9)	August. (10)	September. (11)	October. (12)	November. (13)	December. (14)	Total. (15)	Serial number. (16)
17	27	37	38	36	30	33	381	1
19	20	31	29	36	36	30	350	2
29	45	41	47	33	36	38	423	3
97	138	175	183	170	174	151	1,736	4
63	64	165	141	102	93	76	1,068	5
37	44	45	55	57	43	39	550	6
167	131	126	126	133	223	206	1,943	7
60	65	30	58	66	78	53	948	8
34	40	35	31	45	48	61	478	9
51	34	32	38	32	49	52	565	10
48	36	38	37	43	46	45	526	11
191	207	204	198	256	288	283	2,661	12
62	74	73	59	73	100	93	840	13
51	63	55	54	45	61	71	723	14
15	24	26	27	26	28	31	325	15
52	73	55	54	59	67	66	692	16
24	30	23	20	28	38	43	348	17
34	56	56	43	58	74	56	649	18
46	40	65	50	35	39	53	504	19
122	133	176	164	150	143	138	1,742	20
167	182	232	201	190	196	170	2,121	21
27	44	60	42	37	46	27	440	22
80	102	117	112	96	105	97	1,176	23
50	57	56	40	42	56	22	521	24
237	230	331	233	256	236	207	2,709	25
68	79	78	72	66	68	63	889	26

No. III.—Deaths registered in the Districts, exclusive of Municipalities and in the

Serial number. (1)	Municipalities. (2)	January. (3)	February. (4)	March. (5)	April. (6)	May. (7)
<i>Guntūr District—cont.</i>						
27	Ongole	50	44	53	39	50
28	Narasaraopet	83	27	37	42	39
<i>Kistna District.</i>						
29	Bezawada	162	133	148	120	220
30	Masulipatam	168	149	144	135	135
31	Gudivada	54	50	58	35	46
<i>Kurnool District.</i>						
32	Kurnool	93	63	89	95	92
33	Nandyal	40	58	58	50	49
<i>Madras.</i>						
34	Madras	2,270	2,277	2,354	2,175	2,612
<i>Madura District.</i>						
35	Madura	517	468	570	488	475
36	Dindigul	117	105	120	75	108
37	Bodinayakkanur	40	25	25	42	31
38	Periyakulam	53	48	47	41	48
39	Palni	40	46	31	36	57
40	Kodaikanal	9	4	15	9	10
<i>Malabar District.</i>						
41	Calicut	220	175	263	179	339
42	Palghat	93	115	100	109	140
43	Cannanore	50	47	52	52	54
44	Tellicherry	69	42	67	59	89
45	Cochin	55	58	49	47	53
<i>Nellore District.</i>						
46	Nellore	180	160	189	141	216
<i>Nilgiris District.</i>						
47	Ootacamund	59	26	58	39	60
48	Coonoor	28	17	26	32	53
<i>North Arcot District.</i>						
49	Vellore	210	177	165	174	170
50	Tiruvannamalai	88	64	64	41	58
51	Gudiyattam	60	77	73	54	66
52	Vaniyambadi	52	27	43	37	42
53	Tiruppattur	33	29	29	39	30
54	Walajapet	25	25	18	10	18

Municipalities in the Province of Madras during each month of the year 1939—cont.

June. (8)	July. (9)	August. (10)	September. (11)	October. (12)	November. (13)	December. (14)	Total. (15)	Serial number. (16)
57	49	71	62	60	75	68	678	27
47	35	59	42	59	48	42	510	28
185	152	245	200	201	199	168	2,133	29
119	138	171	139	117	136	111	1,662	30
49	48	60	64	47	57	56	619	31
85	73	86	99	93	69	99	1,036	32
35	41	48	55	62	64	74	634	33
2,319	2,073	2,427	2,183	2,727	3,355	3,086	29,808	34
509	459	476	499	532	724	678	6,375	35
76	103	92	84	81	126	139	1,221	36
32	46	36	44	34	52	94	501	37
43	49	43	42	43	78	70	605	38
34	39	34	43	34	49	72	515	39
19	18	8	6	17	14	16	145	40
326	292	266	228	199	199	205	2,891	41
163	175	128	115	98	100	95	1,426	42
53	73	65	60	54	56	57	673	43
79	73	93	83	61	43	53	821	44
59	70	76	55	38	46	61	667	45
163	140	190	164	139	199	215	2,096	46
62	54	39	37	46	49	73	602	47
34	26	29	20	29	36	23	353	48
128	142	148	124	140	216	220	2,014	49
59	40	43	40	51	47	93	688	50
56	50	49	45	60	63	57	710	51
30	30	31	36	32	39	45	444	52
37	25	29	35	57	37	42	422	53
15	10	20	18	24	25	33	241	54

No. III.—Deaths registered in the Districts, exclusive of Municipalities and in the

Serial number.	Municipalities.	January.	February.	March.	April.	May.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Ramnad District.</i>						
55	Virudhunagar	80	74	67	62	80
56	Srivillipattur	67	58	50	40	75
57	Karaikudi	58	44	42	40	35
58	Devakottai	44	34	46	26	34
59	Sivakasi	11	24	17	17	28
<i>Salem District.</i>						
60	Salem	262	229	269	197	244
<i>South Arcot District.</i>						
61	Cuddalore	94	104	116	100	108
62	Chidambaram	67	74	81	50	65
63	Villupuram	42	35	43	35	31
<i>South Kanara District.</i>						
64	Mangalore	176	102	105	116	110
65	Udipi	34	29	42	21	23
<i>Tanjore District.</i>						
66	Tanjore	216	183	185	170	222
67	Kumbakonam	210	168	142	138	115
68	Negapatam	104	99	96	79	97
69	Mayavaram	103	88	74	46	64
70	Mannargudi	58	44	34	45	53
71	Tiruvannamalai	57	52	37	41	57
<i>Tinnevely District.</i>						
72	Tuticorin	168	167	143	129	128
73	Tinnevely	172	136	147	92	99
74	Palamcottah	82	56	62	66	55
<i>Trichinopoly District.</i>						
75	Trichinopoly	392	343	345	302	404
76	Srirangam	85	66	59	51	68
77	Karur	39	59	59	35	56
<i>Vizagapatam District.</i>						
78	Vizagapatam	127	117	153	122	121
79	Vizianagram	122	113	95	82	103
80	Anakapalle	61	44	57	56	55
81	Chicacole	43	35	17	17	23
82	Bimlipatam	24	19	23	21	17
Total ...		10,000	8,952	9,724	8,491	9,958
* Rate per thousand of population for municipalities.		32.08	31.80	31.19	28.15	31.94
Total for the province ...		93,891	82,189	87,942	78,419	89,645
* Rate per thousand of population for the province.		25.13	24.36	23.54	21.69	24.00

Municipalities in the Province of Madras during each month of the year 1939—cont.

June.	July.	August.	September.	October.	November.	December.	Total.	Serial number.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
59	53	77	68	90	116	101	925	55
47	51	55	80	74	83	120	900	56
39	41	54	49	60	79	99	643	57
25	37	27	25	29	46	40	413	58
11	24	36	25	31	31	33	288	59
176	196	205	153	226	204	253	2,619	60
121	112	123	92	89	125	105	1,289	61
48	56	48	40	53	92	53	728	62
30	23	31	35	36	33	54	428	63
108	128	127	102	90	110	100	1,368	64
21	32	32	33	28	23	27	351	65
151	171	173	156	175	255	218	2,369	66
145	143	124	139	136	192	174	1,826	67
103	90	94	144	93	117	113	1,229	68
59	57	50	51	62	85	72	811	69
43	51	45	45	56	50	56	580	70
51	40	55	52	51	65	36	594	71
155	152	151	120	142	229	323	2,007	72
110	128	136	102	110	167	184	1,563	73
54	61	58	49	64	73	101	781	74
319	290	308	305	310	456	552	4,326	75
54	83	41	55	52	80	82	766	76
46	38	42	52	47	73	72	618	77
134	152	203	142	159	123	160	1,713	78
80	114	156	116	114	95	121	1,311	79
52	58	83	57	56	73	56	708	80
42	35	37	36	32	26	27	370	81
21	24	28	28	18	21	22	266	82
9,025	8,984	10,079	9,072	9,783	11,725	11,593	117,386	
29.92	28.82	32.33	30.07	31.38	38.87	37.19	31.99	
88,563	92,389	95,586	88,045	89,585	107,693	117,334	1,111,281	
24.50	24.74	25.59	24.35	24.00	29.79	31.48	25.26	

No. IV.—Deaths registered according to Age in the Districts exclusive of in the Province of Madras during the year 1939 (compiled with

Serial number. (1)	Districts exclusive of Municipalities and rural towns. (2)	Not exceeding one month.						Total of columns 5 and 8. (9)
		Males.			Females.			
		Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.	
		(3)	(4)	(5)	(6)	(7)	(8)	
1	Anantapur	1,309	888	2,197	1,059	738	1,827	4,024
2	Bellary	1,068	626	1,694	868	486	1,354	3,048
3	Chingleput	1,309	862	2,171	1,028	756	1,784	3,955
4	Chittoor	1,564	766	2,330	1,175	650	1,825	4,155
5	Coimbatore	4,155	1,611	5,766	3,239	1,281	4,520	10,286
6	Cuddapah	1,000	538	1,538	810	490	1,300	2,838
7	Godavari, Plains	2,140	655	2,795	1,585	516	2,101	4,896
8	Godavari, East, Agency	225	125	350	188	123	311	661
9	Godavari, West	1,895	619	2,514	1,390	520	1,910	4,424
10	Guntur	3,525	1,632	5,157	2,876	1,359	4,235	9,392
11	Kistna	1,975	839	2,814	1,583	730	2,313	5,127
12	Kurnool	1,530	967	2,497	1,247	787	2,034	4,531
13	Madura	2,349	1,347	3,696	2,003	1,096	3,099	6,795
14	Malabar	3,081	1,405	4,486	2,414	1,155	3,569	8,055
15	Nellore	2,062	1,010	3,072	1,676	837	2,512	5,584
16	Nilgiris, The... ..	89	69	148	75	26	101	249
17	North Arcot	1,914	1,465	3,379	1,526	1,246	2,772	6,151
18	Ramnad	1,173	1,048	2,221	913	803	1,716	3,937
19	Salem	3,114	1,475	4,589	2,753	1,167	3,920	8,509
20	South Arcot	2,016	1,324	3,340	1,693	1,094	2,697	6,037
21	South Kanara... ..	1,111	593	1,704	929	506	1,435	3,139
22	Tanjore	2,103	1,255	3,358	1,869	971	2,840	6,188
23	Tinnevely	2,389	1,598	3,987	1,913	1,257	3,170	7,157
24	Trichinopoly	2,205	1,453	3,658	1,803	1,168	2,971	6,629
	Vizagapatam	3,445	1,787	5,232	2,659	1,093	3,752	8,984
	Total for districts exclusive of municipalities and rural towns ...	48,746	25,947	74,693	39,203	21,365	60,568	135,261
	Total population according to the census of 1931	...	...	...	...	...	...	...
	Ratio per 1,000 of births for age period under 1 year and per 1,000 of population for age periods 1 year and above.	33.95	18.07	52.01	27.30	14.88	42.18	94.19

Municipalities and rural towns and in the Municipalities and rural towns reference to G.O. Ms. No. 602, P.H., dated 30th March 1931).

Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total.			One and under five years.		Serial num. be.
Males.	Females.	Total.	Males.	Fe- males.	Total.	Males columns (6), (10) and (13).	Females columns (8), (11) and (14).	Total.	Males.	Females.	
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)				(19)	(20)
1,141 969 1,465 976 1,235 761 1,520 266 1,460 2,015 1,468 976 1,062 2,346 1,052 61 1,281 879 1,279 1,633 783 1,265 1,224 1,106 3,151	1,020 785 1,324 911 1,038 728 1,291 254 1,236 1,766 1,237 869 976 2,188 993 60 1,198 756 1,150 1,601 740 1,162 1,125 973 2,800	2,171 1,754 2,789 1,887 2,273 1,479 2,811 520 2,705 3,781 2,705 1,835 2,038 4,534 2,045 121 2,479 1,635 2,420 3,234 1,523 2,427 2,340 2,079 5,951	1,032 907 1,264 882 1,085 865 1,442 194 1,435 1,498 1,140 908 1,054 2,396 1,188 72 1,816 888 1,040 1,589 782 966 1,066 985 3,168	1,042 876 1,205 821 927 763 1,442 210 1,253 1,353 963 975 900 2,188 1,209 90 1,649 782 950 1,462 738 900 1,053 907 2,804	2,074 1,783 2,469 1,703 2,012 1,628 2,804 404 2,678 2,851 2,103 1,983 1,954 3,228 2,397 162 3,465 3,988 1,990 3,051 1,520 1,866 2,119 1,892 5,982	4,370 3,570 4,900 4,188 8,086 3,154 5,757 810 5,408 8,670 5,422 4,381 3,512 9,228 3,812 281 6,476 3,988 6,908 6,562 3,269 5,589 6,277 5,749 11,551	3,899 3,615 4,313 3,557 6,485 2,791 4,754 775 4,399 7,354 4,513 3,868 4,975 7,945 4,714 251 5,619 3,254 6,020 5,760 2,913 4,892 5,348 4,851 9,866	8,269 7,185 9,213 7,745 14,571 5,945 10,511 1,585 9,807 16,024 9,935 8,249 10,787 17,173 10,026 532 12,095 7,242 12,928 12,322 6,182 10,481 11,625 10,600 21,417	3,152 2,707 2,502 2,003 2,617 2,006 3,058 749 2,637 3,892 2,131 3,410 2,609 6,199 2,793 338 4,512 2,532 2,584 1,152 1,519 2,519 3,735 2,649 5,503	3,339 2,855 2,446 2,010 2,696 1,957 3,196 732 2,737 3,551 1,963 2,608 2,545 6,531 2,687 334 4,528 2,514 2,444 3,998 1,668 2,424 3,846 2,768 5,383	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
31,373	28,181	59,554	29,652	27,382	57,034	135,718	116,131	251,849	72,508	72,760	
...	...	...	...	...	...	519,110	537,690	1,056,800	2,175,338	2,250,069	
21'85	19'62	41'47	20'65	19'07	39'72	94'51	80'87	175'38	33'34	32'34	

No. IV.—Deaths registered according to Age in the Districts exclusive of Municipalities during the year 1939 (compiled with reference to

Serial number.	Districts exclusive of Municipalities and rural towns—cont.	Five and under ten years.		Ten and under 15 years.		15 and under 20 years.		20 and under 30 years.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
		(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
1	Anantapur ...	1,021	1,071	434	419	319	589	761	1,430
2	Bellary ...	780	751	293	281	233	284	611	923
3	Chingleput ...	785	782	423	450	405	568	869	1,220
4	Chittoor ...	485	492	307	312	285	441	725	1,304
5	Coimbatore ...	762	775	446	440	561	666	1,016	1,621
6	Cuddapah ...	649	670	293	298	247	416	550	1,051
7	Godavari, Plains ...	1,057	1,051	617	516	515	708	1,033	1,908
8	Godavari, East, Agency ...	237	240	167	112	104	108	271	313
9	Godavari, West ...	863	865	426	449	335	614	817	1,300
10	Guntur ...	1,105	1,060	556	551	514	783	1,275	2,068
11	Kistna ...	687	653	370	479	392	573	773	1,196
12	Kurnool ...	1,096	992	415	441	317	387	784	1,149
13	Madura ...	699	629	414	355	412	573	976	1,306
14	Malabar ...	1,636	737	757	793	755	858	2,165	2,494
15	Neelore ...	748	706	430	399	396	407	871	1,157
16	Nizampur, The ...	78	85	44	46	45	39	124	125
17	North Arcot ...	847	921	491	468	430	703	910	1,366
18	Ramanad ...	601	598	277	291	387	458	787	1,216
19	Salem ...	750	760	509	488	435	597	1,137	1,714
20	South Arcot ...	982	949	491	489	495	752	1,243	1,816
21	South Kanara ...	486	485	283	317	323	412	701	966
22	Tanjore ...	735	680	465	473	466	778	1,071	2,086
23	Tinnevely ...	759	770	334	394	339	507	812	1,321
24	Tiruchinopoly ...	653	613	369	361	388	603	953	1,557
	Vizagapatam ...	1,743	1,737	1,080	971	962	1,107	2,063	2,916
	Total for districts exclusive of municipalities and rural towns ...	20,196	20,090	10,644	10,602	10,060	13,765	23,358	35,223
	Total population according to the census of 1931 ...	2,450,598	2,409,271	2,245,685	2,139,279	1,623,386	1,754,850	3,134,629	3,622,423
	Ratio per 1,000 of births for age period under 1 year and per 1,000 of population and for age periods 1 year and above.	8.24	8.34	4.74	4.96	6.20	7.84	7.45	9.72

and rural towns and in the Municipalities and rural towns in the Province of Madras G.O. Ms. No. 602, P.H., dated 30th March 1931)—cont.

Serial number.	30 and under 40 years.		40 and under 50 years.		50 and under 60 years.		60 years and upwards.		Total of all ages.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)
1	1,065	1,214	1,382	1,024	1,432	1,053	3,631	3,381	17,567	17,419
2	845	925	998	743	967	732	1,816	1,897	12,820	12,406
3	1,017	1,067	1,236	978	1,333	1,086	4,223	4,149	17,068	17,059
4	991	1,004	1,146	1,006	1,292	1,029	3,667	3,297	15,009	14,352
5	1,219	1,482	1,451	1,145	1,368	1,146	5,270	5,495	22,926	21,959
6	791	939	1,087	831	1,282	972	2,764	2,839	12,823	12,764
7	1,163	1,225	1,324	995	1,466	1,163	4,660	5,325	20,560	20,541
8	288	237	307	182	275	231	519	572	3,723	3,501
9	918	885	899	750	1,066	735	3,397	3,534	16,706	16,598
10	1,344	1,473	1,507	1,186	1,698	1,277	5,985	5,758	26,546	25,061
11	778	965	766	660	810	692	3,212	3,094	15,321	14,698
12	1,141	1,091	1,316	955	1,306	1,022	2,754	2,956	16,920	16,449
13	1,115	1,182	1,399	1,012	1,328	1,215	3,725	3,972	17,510	17,668
14	2,409	2,649	2,835	2,060	2,966	2,132	7,879	9,282	36,919	36,481
15	942	1,073	1,205	928	1,406	1,056	4,487	4,465	18,589	17,592
16	140	126	110	71	84	73	154	136	1,398	1,249
17	1,030	1,123	1,123	826	1,435	1,148	4,855	4,799	22,139	21,501
18	1,087	1,206	1,338	1,139	1,505	1,269	3,480	3,618	15,982	15,563
19	1,432	1,671	1,814	1,325	1,719	1,334	4,555	4,811	21,834	21,164
20	1,560	1,716	2,018	1,585	2,210	1,329	5,098	4,903	24,811	23,987
21	1,068	1,086	1,135	841	1,234	982	2,681	3,047	12,689	12,717
22	1,411	1,891	1,712	1,742	2,072	1,833	5,291	5,647	21,331	22,455
23	1,006	1,076	1,193	963	1,397	1,120	4,486	4,770	20,358	20,115
24	1,175	1,228	1,365	1,154	1,551	1,232	4,862	5,227	19,653	19,594
	2,453	2,545	3,016	2,311	3,280	2,856	7,026	8,190	38,677	37,892
	28,418	31,079	33,673	26,355	36,521	29,286	100,377	100,544	471,473	460,845
	2,670,751	2,657,642	1,864,842	1,758,686	1,121,443	1,113,458	853,865	891,494	18,659,617	19,134,871
	10.64	11.69	18.06	14.98	32.58	26.31	117.55	112.77	25.2	24.09

and rural towns and in the Municipalities and rural towns in the Province of G.O. Ms. No. 602, P.H., dated 30th March 1931)—cont.

One to five years.		Five to ten years.		Ten to 15 years.		15 to 20 years.		20 to 30 years.		30 to 40 years.		40 to 50 years.		50 to 60 years.		60 years and upwards.		Total of all ages.		Serial number.			
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.				
34-01	2,637,082	86,330	38-18	18,322	21	39-19	362,483	13,408	15	40-20	408,188	9,220	3	41-21	393,130	2,080	3	42-22	374,061	1,802	1		
35-02	2,612,552	86,608	39-20	362,483	13,408	40-21	408,188	9,220	3	41-22	393,130	2,080	3	42-23	374,061	1,802	3	43-24	344,834	1,996	4		
36-03	2,588,756	23,425	40-22	393,130	2,080	41-23	374,061	1,802	4	42-24	344,834	1,996	4	43-25	270,406	2,205	4	44-26	252,705	3,447	5		
37-04	2,567,402	23,170	41-24	344,834	1,996	42-25	270,406	2,205	4	43-26	252,705	3,447	5	44-27	232,132	6,233	5	45-28	583,566	8,219	10		
38-05	2,543,618	12,508	42-26	270,406	2,205	43-27	232,132	6,233	5	44-28	583,566	8,219	10	45-29	510,864	6,716	7	46-30	428,142	6,401	5		
39-06	1,803,792	12,205	43-28	583,566	8,219	44-29	428,142	6,401	5	45-30	410,625	7,472	5	46-31	283,321	5,067	4	47-32	310,625	7,472	5		
40-07	2,027,564	17,212	44-30	410,625	7,472	45-31	310,625	7,472	5	46-32	283,321	5,067	4	47-33	186,708	7,565	7	48-34	179,276	4,902	11		
41-08	2,027,564	17,212	45-32	283,321	5,067	46-33	186,708	7,565	7	47-34	179,276	4,902	11	48-35	142,226	18,067	12	49-36	143,619	10,267	23		
42-09	2,002,007	31,422	46-34	179,276	4,902	47-35	142,226	18,067	12	48-36	143,619	10,267	23	49-37	133,76	143,619	10,267	44	50-38	133,76	143,619	10,267	
43-10	1,304,241	44,086	47-36	142,226	18,067	48-37	133,76	143,619	10,267	49-38	133,76	143,619	10,267	50-39	133,76	143,619	10,267	44	51-40	133,76	143,619	10,267	
44-11	1,292,834	34,183	48-38	133,76	143,619	10,267	49-39	133,76	143,619	10,267	50-40	133,76	143,619	10,267	51-41	133,76	143,619	10,267	44	52-42	133,76	143,619	10,267
45-12	906,091	118,444	49-40	133,76	143,619	10,267	50-41	133,76	143,619	10,267	51-42	133,76	143,619	10,267	52-43	133,76	143,619	10,267	44	53-44	133,76	143,619	10,267
46-13	1,035,113	119,751	50-42	133,76	143,619	10,267	51-43	133,76	143,619	10,267	52-44	133,76	143,619	10,267	53-45	133,76	143,619	10,267	44	54-46	133,76	143,619	10,267
47-14	21,767,720	563,478	51-44	133,76	143,619	10,267	52-45	133,76	143,619	10,267	53-46	133,76	143,619	10,267	54-47	133,76	143,619	10,267	44	55-48	133,76	143,619	10,267
48-15	22,217,498	547,803	52-4																				

No. IV (a).—Infantile Deaths according to Communities in the Municipalities in the Province of Madras during the year 1939 (prescribed in G.O. Ms. No. 196, P.H., dated 24th January 1936).

Municipalities.	Mortality under one year among							
	Hindus.		Muhammadans.		Indian Christians.		Others.	
	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.
<i>Anantapur District.</i>								
Anantapur	39	98.30	9	54.55	1	58.82	...	...
Hindupur	86	189.37	21	105.00	2	133.33	...	...
Tadpatri	68	186.30	35	175.88	...	...	...	...
<i>Bellary District.</i>								
Bellary	308	221.74	129	171.54	6	74.07	...	...
Adoni	140	148.15	57	100.18	2	222.22	1	500.00
Hospet	99	152.31	29	138.10	...	...	...	...
<i>Chingleput District.</i>								
Conjeevaram	483	179.42	19	159.66	2	74.07	...	...
Saidapet	256	233.15	10	200.00	7	350.00	...	...
Chingleput	93	123.84	3	76.92	4	95.24	...	...
<i>Chittoor District.</i>								
Chittoor	107	123.56	7	57.38	...	...	...	...
Tirupati	105	174.42	4	83.33	...	...	...	...
<i>Coimbatore District.</i>								
Coimbatore	569	142.89	31	132.48	18	45.57	...	...
Erode	185	165.47	27	163.64	16	70.21	6	77.92
Pollachi	186	237.24	7	86.42	2	100.00	...	...
Dharapuram	57	109.82	9	103.45	2	37.04	...	...
Tiruppur	189	182.61	20	166.67	6	133.33	...	...
Udamalpet	93	199.57	14	153.85	1	166.66	...	...
<i>Cuddapah District.</i>								
Cuddapah	60	124.48	56	119.15	5	151.52	...	...
Proddattur	70	141.13	32	128.51	4	71.43	...	...
<i>East Godavari District.</i>								
Cocanada	351	183.67	6	61.86	...	...	...	...
Rajahmundry	499	236.83	13	141.30	14	108.53	...	...
Peddapuram	99	171.28	5	200.00	1	76.92	...	...

No. IV (a).—Infantile Deaths according to Communities in the Municipalities in the Province of Madras during the year 1939 (prescribed in G.O. Ms. No. 196, P.H., dated 24th January 1936)—cont.

Municipalities.	Mortality under one year among							
	Hindus.		Muhammadans.		Indian Christians.		Others.	
	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.
<i>West Godavari District.</i>								
Ellore	211	107.11	59	216.12	7	89.74	...	...
Palacole	148	301.43	...	...	6	187.05	...	...
<i>Guntūr District.</i>								
Guntūr	653	268.17	146	221.55	62	122.05	...	...
Tenali	231	198.45	33	224.49	21	225.81	...	...
Ongole	122	187.40	25	316.46	19	180.95	1	34.48
Narasaraopet	110	235.06	24	195.72	8	153.85	...	...
<i>Kistna District.</i>								
Bezavada	513	248.67	54	170.35	40	194.17	...	...
Masulipatam	406	214.25	63	225.81	6	93.75	...	...
Gudivada	177	245.15	20	273.97	18	276.92	...	...
<i>Kurnool District.</i>								
Kurnool	116	119.83	97	116.87	1	27.08	...	...
Nandyal	72	142.86	57	141.09	5	52.63	10	144.44
<i>Madras District.</i>								
Madras	6,469	242.82	842	271.18	340	178.20	...	...
<i>Madura District.</i>								
Madura	1,576	176.46	105	148.31	66	115.38	2	200.00
Dindigul	252	171.31	39	136.84	61	153.27	1	...
Bodinayakanur	157	157.47	11	192.98	3	103.45	...	...
Periyakulam	162	180.80	15	98.68	11	118.28	...	...
Palni	104	147.52	10	101.01	2	86.96	...	...
Kodaikanal	16	156.86	2	133.33	26	120.37	13	191.18
<i>Malabar District.</i>								
Calicut	220	109.84	234	163.64	22	108.91	...	...
Palghat	308	184.54	56	147.37	2	50.00	...	...
Cannanore	50	127.55	47	106.33	6	86.96	...	...
Tellicherry	52	98.86	43	115.90	6	101.69	...	...
Cochin	38	214.69	41	209.18	54	117.90	...	...
<i>Nellore District.</i>								
Nellore	426	198.14	98	211.66	24	220.18	...	...

No. IV (a).—*Infantile Deaths according to Communities in the Municipalities in the Province of Madras during the year 1939 (prescribed in G.O. Ms. No. 196, P.H., dated 24th January 1936)*—cont.

Municipalities.	Mortality under one year among							
	Hindus.		Muhammadans.		Indian Christians.		Others.	
	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.
<i>Nilgiris, The.</i>								
Ootacamund	100	159.72	26	201.72	43	123.92	7	200.00
Coonoor	56	161.85	21	280.00	20	93.46	...	...
<i>North Arcot District.</i>								
Vellore	413	164.61	123	201.64	9	703.07	1	500.00
Tiruvannamalai	147	155.06	19	118.01	4	190.48	...	...
Gudiyattam	178	185.22	22	116.40	...	...	...	...
Vaniyambadi	35	80.83	67	131.37	...	...	...	...
Tiruppattur	82	122.39	24	116.50	1	83.33	...	...
Walajapet	45	139.32	7	116.67	...	...	...	...
<i>Ramnad District.</i>								
Virudunagar	226	170.82	10	129.87	12	148.15	...	...
Srivilliputtur	216	170.21	4	160.00	3	90.91	...	...
Karaikudi	146	183.65	8	200.00	2	100.00	...	...
Devakottai	85	139.80	3	100.00	1	62.5	...	...
Sivakasi	67	121.38	3	125.00	4	333.33	...	...
<i>Salem District.</i>								
Salem	548	154.50	31	106.80	11	106.80	...	...
<i>South Arcot District.</i>								
Cuddalore	263	136.41	27	241.07	10	175.44	58	183.54
Chidambaram	141	149.84	15	220.59	1	333.33	...	...
Villupuram	82	139.69	3	43.48	2	66.67	4	58.82
<i>South Kanara District.</i>								
Mangalore	147	94.66	17	62.5	45	82.72	1	250.00
Udipi	57	104.40	8	205.13	9	96.77	2	105.26
<i>Tanjore District.</i>								
Tanjore	395	164.79	20	121.95	32	112.68	...	...
Kumbakonam	315	133.08	15	133.93	9	85.71	...	...
Negapatam	167	142.74	93	285.28	10	105.26	1	500
Mayavaram	150	136.36	...	...	...	...	...	...
Mannargudi	114	127.52	9	183.67	2	117.65	...	...
Tiruvarur	106	190.99	15	182.93	1	125.00	4	100.00
<i>Tinnevely District.</i>								
Tuticorin	499	232.53	20	168.07	121	176.38	...	...
Tinnevely	420	234.38	59	213.00	8	210.53	...	...
Palamcottah	179	170.80	6	127.86	18	114.65	...	...

No. IV (a).—*Infantile Deaths according to Communities in the Municipalities in the Province of Madras during the year 1939 (prescribed in G.O. Ms. No. 196, P.H., dated 24th January 1936)*—cont.

Municipalities.	Mortality under one year among							
	Hindus.		Muhammadans.		Indian Christians.		Others.	
	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.	No.	Ratio per 1,000 live births.
<i>Trichinopoly District.</i>								
Trichinopoly	685	170.78	159	182.13	118	147.68	...	...
Srirangam	146	164.97	...	...	...	...	...	...
Karur	152	181.17	15	223.88	...	...	...	...
<i>Vizagapatam District.</i>								
Vizagapatam	464	218.87	1	10.20	2	32.26	...	...
Vizianagram	347	187.67	20	215.05	3	125.00	...	...
Anakapalle	176	198.20	3	428.57	...	...	...	...
Chicacole	100	152.91	7	500.00	...	...	...	...
Bimlipatam	65	157.38	...	...	6	1,000.00	...	...
Total	24,245	187.62	3,544	178.56	1,416	132.23	112	147.56

No. V.—Deaths registered according to classes in the districts in the Province of Madras during the year 1939.

Number. (1)	Districts. (2)	Number of deaths registered.							
		Indian Christians.		Muhammadans.		Hindus.		Other classes.	
		Males. (3)	Females. (4)	Males. (5)	Females. (6)	Males. (7)	Females. (8)	Males. (9)	Females. (10)
1	Anantapur	85	75	1,458	1,393	17,527	17,327	43	25
2	Bellary	98	85	1,459	1,513	18,941	13,286	64	42
3	Chingleput	475	403	455	464	20,542	19,915	40	21
4	Chittoor	58	74	796	709	15,135	14,180	...	1
5	Coimbatore	362	352	579	601	25,810	24,510	18	13
6	Cuddapah	607	577	1,576	1,559	11,829	11,736	8	...
7	Godāvari, East { Plains. Agency.	235	242	375	430	23,446	23,221	8	...
8	Godāvari, West	58	42	76	85	3,565	3,346	28	28
9	Guntūr	853	803	395	327	17,730	17,458	9	5
10	Kistna	3,169	3,038	2,240	2,078	25,707	24,089	9	5
11	Kurnool	1,815	1,226	886	782	15,958	15,295	7	6
12	Madras	1,050	1,083	2,317	2,082	14,448	14,074	3	2
13	Madura	777	760	1,714	1,611	12,543	12,378	14	11
14	Malabar	876	776	1,054	985	23,216	21,834	3	1
15	Nellore	679	627	14,182	13,776	26,026	25,650	17	5
16	Nilgiris, The	863	773	1,337	1,221	18,303	17,348	1	...
17	North Arcot	163	196	174	153	1,683	1,516	7	12
18	Ramnad	412	412	1,427	1,424	24,418	23,639	257	216
19	Salem	903	844	1,103	1,127	18,328	17,908	5	2
20	South Arcot	187	196	595	497	23,231	22,664	6	2
21	South Kanara	653	585	682	654	25,941	25,195	225	200
22	Tanjore	947	907	1,743	1,692	11,284	11,257	85	63
23	Tinnevely	878	968	1,478	1,796	24,313	24,913	18	17
24	Trichinopoly	2,567	2,545	1,517	1,467	23,119	22,796	...	...
25	Vizagapatam	1,157	1,149	828	859	21,614	21,409	...	1
		142	100	380	362	42,470	41,363	46	40
	Total, Madras Province ...	19,604	18,838	40,826	39,647	502,127	488,598	921	720

No. V.—Deaths registered according to classes in the districts in the Province of Madras during the year 1939—cont.

Number. (1)	Districts. (2)	Ratio of deaths per 1,000 of population.							
		Indian Christians.		Muhammadans.		Hindus.		Other classes.	
		Males. (11)	Females. (12)	Males. (13)	Females. (14)	Males. (15)	Females. (16)	Males. (17)	Females. (18)
1	Anantapur	26.95	26.20	28.86	28.75	36.14	37.77	68.24	47.89
2	Bellary	29.25	25.97	26.92	30.49	32.10	31.40	68.52	84.34
3	Chingleput	25.53	21.86	23.34	26.51	25.80	25.53	49.57	47.62
4	Chittoor	11.08	14.23	19.08	18.49	21.89	21.77	...	100.00
5	Coimbatore	15.49	16.16	19.73	22.23	22.15	20.82	132.35	228.07
6	Cuddapah	32.71	31.90	24.55	25.85	29.49	30.32	166.67	...
7	Godāvari, East { Plains. Agency.	19.27	19.70	28.57	31.72	29.21	28.14	32.00	33.90
8	Godāvari, West	26.35	19.49	45.81	56.44	31.22	29.48	10.13	10.57
9	Guntūr	27.92	25.04	30.43	25.90	31.73	30.31	75.00	44.25
10	Kistna	26.27	25.95	27.66	27.09	31.08	29.64	31.03	42.37
11	Kurnool	25.32	24.96	27.49	25.40	28.96	28.41	24.22	60.00
12	Madras	27.95	29.57	30.98	29.42	35.43	35.42	30.93	125.00
13	Madura	39.10	37.98	44.70	50.83	45.83	50.22	7.18	11.29
14	Malabar	21.48	18.67	23.45	21.58	23.34	21.28	93.75	43.47
15	Nellore	21.72	19.91	24.92	23.17	23.36	21.55	34.21	14.45
16	Nilgiris, The	26.81	23.58	25.73	23.83	27.74	26.38	71.42	...
17	North Arcot	17.06	18.82	25.98	35.90	23.70	25.24	15.80	43.01
18	Ramnad	19.47	19.88	21.11	20.80	23.54	22.70	53.03	45.29
19	Salem	19.44	16.43	22.06	15.81	23.63	21.22	217.32	181.82
20	South Arcot	16.58	17.27	18.54	16.68	19.89	19.19	103.45	50.00
21	South Kanara	18.47	16.48	17.72	17.41	22.60	21.83	89.89	82.18
22	Tanjore	16.07	14.39	19.78	18.36	22.03	20.51	19.04	15.13
23	Tinnevely	18.90	20.57	23.01	22.06	23.49	22.36	55.21	57.05
24	Trichinopoly	23.94	21.34	28.39	21.92	27.99	26.12	...	...
25	Vizagapatam	23.57	21.99	23.09	23.43	25.47	24.10	...	18.18
		23.83	18.02	29.45	27.85	27.44	24.90	4.23	4.21
	Total, Madras Province ...	23.27	21.87	25.06	23.72	23.07	21.99	28.17	26.19

No. VI.—Births and Deaths from Different Causes registered in the Districts

Number.	Districts and towns.	Popula- tion for which returns were received.	Births.				Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Sub- Total.
			Males.	Females.	Total.	Birth-rate per thousand of popula- tion.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
A.—RURAL DISTRICTS.													
(Districts exclusive of Municipalities and Rural Towns.)													
1	Anantapur	941,963	18,839	18,356	37,195	39.50	1	50	...	11,695	2,105	1,955	41
2	Bellary	802,815	17,323	16,761	34,084	42.47	82	3	...	9,084	1,430	1,110	38
3	Chingleput	1,395,911	25,385	24,128	49,513	35.45	8	628	...	5,330	2,350	2,635	55
4	Chittoor	1,368,597	25,637	25,255	50,892	37.20	2	107	21	8,002	3,150	2,302	78
5	Coinbatore	2,167,730	43,611	41,323	84,934	39.15	6	31	22	9,857	4,693	6,581	99
6	Cuddapah	866,370	16,123	15,639	31,762	36.65	9	17	...	13,912	1,136	923	29
7	Gōdāvari, { Plains	1,437,717	25,712	24,581	50,293	35.00	11	23	...	16,203	2,814	3,163	44
	Agency	240,529	4,619	4,383	9,002	37.43	5	...	...	4,041	446	763	9
8	Gōdāvari, West... ..	1,061,178	20,465	19,567	40,032	37.71	5	12	...	11,089	2,714	3,022	45
9	Guntūr	1,757,295	36,573	34,910	71,483	40.68	10	80	...	18,843	4,251	4,365	90
10	Kistna	1,073,779	22,806	21,705	44,511	41.44	61	42	...	10,014	2,299	2,742	29
11	Kurnool	967,039	21,029	20,143	41,172	42.57	53	75	...	17,585	1,376	1,327	43
12	Madura	1,753,361	35,375	33,557	68,932	39.29	2	2	70	6,080	1,945	5,360	63
13	Malabar	3,264,033	58,352	56,083	114,435	35.02	1	94	2	17,731	7,975	7,037	159
14	Nellore	1,363,192	26,983	25,874	52,857	38.80	4	43	...	10,580	3,491	1,880	54
15	Nilgiris, The	115,082	2,049	1,884	3,933	34.17	...	...	9	1,186	400	412	4
16	North Arcot	1,930,071	40,860	38,645	79,505	41.18	12	221	...	10,130	4,178	3,766	108
17	Ramnad	1,452,645	27,270	26,036	53,306	35.99	...	19	...	10,679	1,893	3,062	31
18	Salem	2,239,040	43,313	41,848	85,161	38.07	2	97	137	13,062	1,679	2,743	104
19	South Arcot	2,215,486	39,587	37,617	77,204	34.82	831	332	...	8,692	3,461	3,743	85
20	South Kanara	1,249,613	23,034	22,178	45,212	36.17	5	6	...	8,721	1,346	1,707	65
21	Tanjore	1,993,745	32,150	30,767	62,917	31.58	732	251	...	4,265	1,581	1,578	95
22	Tinnevely	1,516,302	32,437	31,467	63,904	41.35	9	14	...	7,427	3,102	3,002	34
23	Trichinopoly	1,642,968	31,773	31,106	62,879	38.29	106	81	...	7,258	2,444	2,837	95
24	Vizagapatam	2,948,028	61,365	59,229	120,594	40.88	12	7	...	38,879	4,363	3,170	105
	Total	...	732,670	703,042	1,435,712	...	1,960	2,235	261	280,375	66,621	71,785	1,502

and Towns in the Province of Madras during the year 1939.

Injuries.	Ratio of deaths per 1,000 of population.										From all causes.		Number.						
	Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Furies.	Total.	Deaths from child births.	All other causes.	Total deaths from all causes.	Cholera.	Smallpox.	Plague.	Fever.		Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	Deaths from child-births.	All other causes.	For the year.	Mean for the previous 5 years.
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	
75	189	90	121	516	586	18,078	34,986	0.001	0.05	...	12.42	2.24	2.08	0.55	0.62	19.20	37.15	25.25	1
38	70	42	66	254	227	13,036	25,226	0.10	0.004	...	11.32	1.78	1.38	0.52	0.28	16.24	31.43	29.09	2
27	161	66	34	343	377	23,056	34,727	0.066	0.45	...	3.82	1.68	1.89	0.25	0.27	16.51	21.86	23.32	3
90	170	61	46	445	414	14,918	29,361	0.001	0.08	0.02	5.85	2.30	1.68	0.32	0.30	10.90	21.46	21.42	4
142	340	104	24	709	450	22,536	44,885	0.003	0.01	0.01	4.54	2.16	3.03	0.33	0.21	10.39	20.69	20.70	5
83	108	41	22	283	374	8,933	25,587	0.01	0.02	...	16.05	1.31	1.06	0.33	0.43	10.31	20.53	23.10	6
57	115	62	74	352	598	17,927	41,091	0.008	0.02	...	11.28	1.95	2.20	0.24	0.42	12.48	28.60	23.83	7
9	29	15	12	74	91	1,809	7,228	0.02	...	...	16.80	1.85	3.17	0.31	0.38	7.52	30.05	26.89	
87	55	52	279	454	15,729	33,304	0.005	0.01	...	...	10.44	2.56	2.85	0.26	0.43	14.82	31.37	26.26	8
106	188	64	110	558	629	22,871	51,607	0.007	0.04	...	10.72	2.43	2.19	0.32	0.36	13.02	29.37	24.86	9
83	85	86	31	264	486	14,111	30,019	0.06	0.04	...	9.32	2.14	2.55	0.24	0.45	13.14	27.95	25.48	10
99	99	58	45	344	379	12,250	33,389	0.05	0.08	...	18.18	1.42	1.37	0.25	0.39	12.66	34.52	28.72	11
79	249	117	41	609	417	21,703	36,178	0.001	0.001	0.04	3.46	1.11	3.05	0.34	0.24	12.37	20.62	20.05	12
103	522	214	32	1,030	814	38,716	73,400	0.003	0.03	0.0006	5.44	2.44	2.15	0.31	0.25	11.85	22.46	20.47	13
101	161	77	45	438	366	19,379	36,181	0.003	0.03	...	7.76	2.26	1.38	0.32	0.27	14.22	26.55	22.86	14
2	8	3	2	19	23	638	2,687	...	...	0.08	10.30	3.48	3.58	0.16	0.20	5.54	23.35	24.12	15
129	325	61	40	672	494	24,167	43,640	0.006	0.11	...	5.25	2.16	1.95	0.35	0.26	12.52	22.51	22.69	16
28	181	66	13	319	368	14,695	31,545	...	0.01	...	7.35	1.30	2.52	0.22	0.25	10.04	21.70	22.72	17
158	360	95	30	747	533	23,963	42,908	0.0009	0.04	0.06	5.85	0.75	1.23	0.33	0.24	10.71	19.22	22.45	18
59	227	108	81	510	632	30,597	48,798	0.37	0.15	...	3.92	1.56	1.69	0.23	0.28	13.80	22.00	23.46	19
59	239	43	24	439	429	12,762	25,406	0.004	0.005	...	6.98	1.08	1.36	0.34	0.34	10.21	20.32	22.14	20
75	197	124	53	544	982	33,853	43,786	0.37	0.13	...	2.14	0.79	0.79	0.27	0.49	16.99	21.98	24.21	21
41	156	45	30	306	572	26,041	49,473	0.006	0.009	...	4.80	2.00	1.94	0.20	0.37	16.85	26.19	26.42	22
112	237	100	26	570	705	25,246	39,247	0.06	0.05	...	4.42	1.49	1.73	0.35	0.43	15.37	23.96	23.55	23
111	381	123	51	721	928	28,489	76,569	0.004	0.002	...	13.18	1.48	1.07	0.24	0.31	9.66	25.96	22.94	24
1,858	4,834	1,980	1,064	11,326	12,328	485,418	932,318	0.02	0.14	0.01	4.45	2.95	4.90	0.46	0.50	15.46	28.91	27.22	

No. VI.—Births and Deaths from Different Causes registered in the Districts

Number.	Districts and towns.	Population for which returns were received.	Births.				Cholera.	Smallpox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Males.	F.
			Males.	Females.	Total.	Birth-rate per mille of population.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
B.—TOWNS—cont.														
MUNICIPALITIES AND RURAL TOWNS—cont.														
<i>Vizagapatam.</i>														
303	M.T.C. Vizagapatam ...	57,303	1,164	1,116	2,280	39.79	...	1	...	144	264	311	8	
304	M.T.C. Vizianagram ...	44,896	986	980	1,966	43.98	...	...	...	104	117	149	1	
305	M.T.C. Anakapalle ...	25,376	460	440	900	35.50	...	...	...	65	100	242	3	
306	M.T.C. Chicacole ...	16,588	338	336	674	40.63	...	...	...	18	128	89	...	
307	M.T.C. Bimlipatam ...	9,629	230	193	423	43.93	...	...	...	13	50	44	...	
308	T.C. Bobbili ...	20,544	463	414	817	39.77	...	...	...	205	27	41	3	
309	T.C. Salur ...	17,899	362	376	738	41.23	...	...	...	169	22	17	...	
310	T.C. Parvatipuram ...	17,434	277	245	522	29.94	...	...	...	210	7	20	...	
311	T.C. Narasapatam ...	14,005	269	232	501	35.77	...	...	...	114	5	2	1	
312	T.C. Yellamanchilli ...	11,763	178	150	328	27.88	...	1	...	82	31	31	2	
313	T.C. Palkonda ...	11,102	231	179	410	36.93	1	...	...	167	28	6	1	
314	T.C. Ichchapuram ...	10,313	214	194	408	39.56	...	...	...	83	52	14	...	
315	T.C. Tekkali ...	8,675	179	138	317	36.54	...	...	...	71	30	20	1	
316	T.C. Sompeta ...	8,086	152	144	296	36.61	...	...	...	51	34	17	...	
317	T.C. Srungavarapukota.	7,330	112	110	222	30.29	...	...	...	57	14	36	2	
318	T.C. Viraghattam ...	6,757	165	147	312	46.17	...	...	...	85	24	25	...	
319	T.C. Narasannapeta ...	5,667	150	124	274	40.89	...	...	...	59	25	4	...	
320	T.C. Chodavaram ...	6,624	168	113	281	42.42	...	...	...	38	...	5	...	
321	T.C. Mudugula ...	6,346	120	98	218	34.35	...	...	...	61	5	2	...	
322	T.C. Chinnamerangi ...	5,770	130	116	246	42.63	...	...	...	53	14	17	...	
323	T.O. Rajam ...	5,374	111	112	223	41.49	...	...	...	74	10	6	...	
Total, town circles ...			132,474	126,565	259,039	...	146	885	63	27,567	18,285	30,345	342	
Total, rural circles ...			732,670	703,042	1,435,712	...	1,969	2,235	261	280,375	66,621	71,785	1,592	
Total, Madras Province ...			864,732	829,227	1,693,959	...	2,115	3,120	324	307,942	84,906	102,130	1,934	

and Towns in the Province of Madras during the year 1939—cont.

Injuries.					Ratio of deaths per 1,000 of population.															From all causes.		Number.
Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	Deaths from child births.	All other causes.	Total deaths all causes.	Cholera.	Smallpox.	Plague.	Fevers.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	Deaths from child births.	All other causes.	For the year.	Mean for the previous 5 years.				
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)				
9	17	...	1	35	10	948	1,713	0.02	...	...	3.51	4.61	5.43	0.61	0.17	16.54	29.89	33.15	303			
...	14	...	...	15	23	903	1,311	...	...	...	2.33	2.62	3.33	0.34	0.51	20.20	20.33	28.75	304			
...	9	...	...	15	12	265	708	...	...	...	2.78	4.66	10.35	0.64	0.51	11.34	30.29	29.71	305			
...	3	...	1	3	7	125	370	...	...	...	1.08	7.72	5.36	0.18	0.42	7.53	22.30	22.22	306			
...	3	...	...	3	7	149	266	...	...	...	1.35	5.19	4.57	0.31	0.73	15.47	27.62	24.65	307			
1	6	...	...	10	6	236	526	0.04	...	...	9.98	1.31	1.99	0.48	0.29	11.49	25.60	21.99	308			
2	1	...	...	3	4	212	429	0.11	...	...	9.44	1.23	0.95	0.17	0.22	11.84	23.97	30.73	309			
3	4	1	...	6	4	147	394	...	...	...	12.04	0.40	1.15	0.34	0.23	8.43	22.60	22.33	310			
3	2	1	...	7	3	159	290	...	...	...	8.14	0.36	0.14	0.50	0.21	11.35	20.71	21.71	311			
5	1	1	1	10	4	63	222	...	0.08	...	6.97	2.64	2.64	0.85	0.34	5.35	18.87	30.89	312			
1	2	...	...	4	3	89	298	0.09	...	...	15.04	2.52	0.54	0.36	0.27	8.02	26.84	27.87	313			
1	...	...	...	1	2	52	204	...	...	...	8.05	5.04	1.36	0.10	0.19	5.04	19.78	21.36	314			
1	4	...	...	6	4	100	240	...	...	...	8.18	4.50	2.30	0.69	0.46	11.53	27.67	26.34	315			
...	3	...	1	4	3	65	174	...	...	...	6.31	4.20	2.10	0.49	0.37	8.04	21.52	22.68	316			
...	3	...	...	5	4	75	191	...	...	...	7.78	1.91	4.91	0.68	0.55	10.23	26.06	24.56	317			
...	...	...	...	...	...	81	215	...	...	...	12.58	3.55	3.70	...	...	11.99	31.82	23.64	318			
1	2	...	1	5	3	82	178	...	...	...	8.81	3.73	0.60	0.75	0.45	12.24	26.57	21.63	319			
...	...	...	...	3	1	84	131	...	...	...	5.74	...	0.75	0.45	0.15	12.68	19.78	26.72	320			
...	...	...	...	2	2	102	174	...	...	...	9.61	0.79	0.31	0.31	0.31	16.07	27.42	20.34	321			
...	3	...	...	3	...	76	163	...	...	...	9.18	2.43	2.95	0.52	...	13.17	28.25	28.20	322			
...	1	1	...	2	2	43	137	...	...	...	13.77	1.86	1.12	0.37	0.37	8.00	28.49	29.06	323			
262	1,830	162	242	2,847	3,120	95,705	178,963	0.05	0.007	0.07	7.00	1.93	2.32	0.32	0.35	13.21	25.26	24.12				
1,856	4,834	1,980	1,064	11,326	12,328	485,418	932,318	0.02	0.14	0.01	4.45	2.95	4.90	0.46	0.50	15.46	28.91	27.22				
2,118	6,673	2,142	1,306	14,173	15,448	581,123	1,111,281	0.05	0.06	0.01	7.42	1.76	1.90	0.30	0.33	12.85	24.67	23.61				

No. VI (a) (Optional).—Deaths registered from Certain Causes

Serial number.	Municipalities.	Malaria.		Enteric fever.		Measles.		Relapsing fever.		Kala-Azar.		Influenza.	
		Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.
		(1)		(2)		(3)		(4)		(5)		(6)	
<i>Anantapur.</i>													
1	Anantapur ...	6	0.40	24	1.59	2	0.13	...	...	...	...	2	0.13
2	Hindupur ...	7	0.43	10	0.70	6	0.35	...	...	...	...	1	0.07
3	Tadpatri ...	86	6.81	14	1.11	...	...	...	...	...	...	1	0.08
<i>Bellary.</i>													
4	Bellary ...	47	0.98	9	0.19	5	0.10	...	...	...	...	3	0.06
5	Adoni ...	14	0.30	19	0.53	4	0.11	...	...	...	...	40	1.12
6	Hospet ...	24	1.11	25	1.15	35	1.61	1	0.04	...	...	2	0.09
<i>Chingleput.</i>													
7	Conjeevaram ...	8	0.12	23	0.33	3	0.04	...	...	1	0.01	2	0.03
8	Saidapet ...	4	0.12	7	0.21	20	0.66	...	...	...	...	1	0.03
9	Chingleput ...	1	0.06	9	0.62	14	0.97	...	...	...	...	...	...
<i>Chittoor.</i>													
10	Chittoor ...	5	0.22	13	0.59	4	0.18	...	...	...	...	6	0.27
11	Tirupati ...	4	0.21	2	0.10	4	0.21	...	...	...	...	...	...
<i>Coimbatore.</i>													
12	Coimbatore ...	22	0.23	49	0.51	5	0.05	...	...	...	...	3	0.03
13	Erode ...	51	1.51	5	0.14	4	0.11	...	...	...	...	...	...
14	Pollachi ...	13	0.58	11	0.49	...	...	...	...	...	...	4	0.18
15	Dharapuram ...	2	0.10	10	0.54	...	...	...	...	...	...	1	0.05
16	Tiruppur ...	11	0.60	19	1.05	...	...	...	...	...	...	6	0.33
17	Udumalpet ...	8	0.40	8	0.65	...	...	...	...	...	...	1	0.08
<i>Cuddapah.</i>													
18	Cuddapah ...	30	1.32	22	0.97	1	0.04	...	...	...	...	2	0.08
19	Proddatur ...	30	1.49	36	1.78	17	0.84	...	...	...	...	...	...
<i>Godavari, East.</i>													
20	Rajahmundry ...	8	0.12	37	0.58	13	0.20	...	...	...	...	1	0.01
21	Cocanada ...	94	1.42	33	0.48	...	...	...	...	...	...	12	0.18
22	Peddapuram ...	...	...	5	0.28	...	...	...	...	...	...	...	...
<i>Godavari, West.</i>													
23	Ellore ...	28	0.45	19	0.33	...	...	...	...	...	...	...	...
24	Palacole ...	29	1.71	13	0.77	2	0.11	...	...	...	...	...	...
<i>Guntur.</i>													
25	Guntur ...	63	0.96	89	1.36	3	0.05	...	...	...	...	2	0.03
26	Tenali ...	9	0.26	62	1.79	4	0.11	...	...	...	...	2	0.06
27	Ongole ...	33	1.75	29	1.54	...	...	...	...	...	...	...	...
28	Narasarnopet ...	41	2.46	15	0.89	...	...	...	...	...	...	20	1.20
<i>Kistna.</i>													
29	Bozwada ...	98	1.09	83	1.37	1	0.02	...	...	...	...	1	0.02
30	Masulipatam ...	23	0.40	63	1.10	3	0.05	...	...	...	...	6	0.10
31	Gudivada ...	3	0.25	17	1.46	...	...	...	...	...	...	...	...
<i>Kurnool.</i>													
32	Kurnool ...	21	0.59	22	0.62	21	0.59	...	...	...	...	1	0.03
33	Nandyal ...	23	1.01	8	0.35	10	0.44	...	...	...	...	3	0.13

in the Municipalities in the Province of Madras during the year 1939.

Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths from birth.	Deaths under one year.			Infantile mortality rate per 1,000 live births.	Serial number.
													Males.	Females.	Total.		
(7)		(8)		(9)		(10)		(11)		(12)		(13)	(14)			(15)	
41	2.71	13	0.86	14	0.93	23	1.52	7	0.10	27	1.78	3	27	22	49	83.47	1
42	0.32	15	1.05	11	0.77	50	3.52	35	2.16	27	1.90	8	61	48	109	162.68	2
43	0.32	25	1.98	21	1.66	35	2.77	18	1.12	50	3.46	10	55	48	103	181.33	3
44	0.12	117	2.46	114	2.39	259	5.44	23	0.48	145	3.04	44	239	204	443	199.36	4
45	0.03	69	1.94	60	1.68	112	3.14	49	1.37	128	3.69	15	122	78	200	131.14	5
46	0.37	15	0.69	49	2.26	44	2.03	20	0.92	43	1.98	15	69	59	128	148.31	6
47	0.98	134	2.05	126	1.93	336	5.15	51	0.78	39	0.59	57	287	217	504	177.69	7
48	1.15	66	1.99	79	2.39	70	2.11	63	1.90	65	1.96	3	146	127	273	233.13	8
49	2.57	41	2.85	30	2.09	54	3.76	19	1.32	24	1.67	25	63	47	100	120.19	9
50	0.27	21	0.95	13	0.59	44	1.99	13	0.59	27	1.22	15	59	55	114	112.75	10
51	4.54	29	1.51	38	1.98	38	1.98	9	0.47	36	1.88	12	63	46	109	166.66	11
52	0.64	160	1.68	141	1.48	293	3.07	158	1.66	153	1.60	50	375	261	618	134.31	12
53	0.64	89	2.61	11	0.32	130	3.86	18	0.53	51	1.60	23	113	121	234	160.68	13
54	4.16	34	1.54	17	0.77	110	4.97	25	1.58	19	0.85	9	112	83	195	220.33	14
55	0.05	49	2.68	23	1.26	32	1.75	3	0.16	34	1.86	2	38	36	74	102.87	15
56	2.87	60	3.32	44	2.43	50	2.76	32	1.77	42	2.32	12	108	107	215	179.01	16
57	0.41	28	2.29	12	0.98	46	3.77	2	0.16	17	1.39	3	56	52	108	191.82	17
58	0.88	18	0.79	36	1.59	56	2.47	19	0.84	54	2.39	16	71	50	121	122.84	18
59	0.14	39	1.93	26	1.29	55	2.73	18	0.89	22	1.09	8	60	46	106	182.33	19
60	5.85	134	2.11	77	1.21	44	0.69	45	0.71	77	1.21	38	262	264	526	174.23	20
61	3.33	97	1.47	86	1.36	90	1.36	56	0.85	57	0.86	24	218	139	357	225.94	21
62	7.96	36	2.07	9	0.52	1	0.05	6	0.34	19	1.09	10	62	43	105	170.45	22
63	3.63	111	1.93	23	0.40	31	0.54	10	0.17	68	1.18	26	158	119	277	119.34	23
64	0.71	44	2.60	38	2.25	9	0.63	35	2.07	24	1.42	9	87	67	154	292.22	24
65	3.71	89	1.36	193	2.96	155	2.38	47	0.72	148	2.27	77	464	397	861	236.03	25
66	1.21	47	1.36	55	1.59	38	0.86	10	0.29	55	1.59	24	146	139	285	202.99	26
67	0.10	45	2.38	58	3.07	82	4.35	10	0.53	37	1.92	10	97	70	167	202.99	27
68	5.22	46	2.76	44	2.64	10	0.59	4	0.23	20	1.20	10	79	63	142	241.08	28
69	2.93	117	1.94	40	0.66	157	2.60	58	0.96	85	1.41	47	320	287	607	234.72	29
70	1.88	101	1.77	116	2.03	88	1.54	43	0.75	71	1.25	38	281	194	475	212.24	30
71	5.04	32	2.64	38	3.14	49	4.05	20	1.65	36	2.97	22	132	85	215	247.98	31
72	1.16	39	1.10	57	1.61	90	2.54	41	1.16	84	2.37	24	115	99	214	116.55	32
73	1.10	38	1.68	11	0.48	78	3.45	1	0.04	33	1.45	23	82	62	144	135.46	33

No. VI (a) (Optional).—Deaths registered from Certain Causes

Serial number.	Municipalities.	Malaria.		Enteric fever.		Measles.		Relapsing fever.		Kala-Azar.		Influenza.	
		Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.
		(1)	(2)	(3)	(4)	(5)	(6)						
<i>Madras.</i>													
34	Madras	43	0.06	188	0.29	...	...	...	...	...	...	...	...
<i>Madura.</i>													
35	Madura	73	0.40	94	0.51	5	0.02	...	...	...	...	91	0.49
36	Dindigul	1	0.02	6	0.13	...	...	...	...	...	...	...	...
37	Bodinayakanur ...	54	1.99	1	0.03	...	0.15	...	...	...	...	...	...
38	Periyakulam ...	18	0.78	4	0.17	1	0.04	...	...	...	...	3	0.13
39	Palni	7	0.37	3	0.15	...	...	...	...	...	...	...	...
40	Kodaikanal ...	8	1.22	...	...	...	...	...	...	...	...	2	0.30
<i>Malabar.</i>													
41	Calicut	9	0.09	124	1.24	...	...	...	...	...	...	1	0.01
42	Palghat	3	0.06	29	0.40	...	...	...	...	...	...	4	0.08
43	Gannanore	3	0.09	5	0.15	...	...	...	...	...	...	...	...
44	Tellicherry	3	0.09	56	1.84	...	...	...	...	...	...	1	0.03
45	Cochin	...	...	44	1.92	...	...	...	...	...	...	...	...
<i>Nellore.</i>													
46	Nellore	10	0.22	51	1.11	12	0.26	...	...	...	...	1	0.02
<i>Nilgiris.</i>													
47	Ootacamund	7	0.28	13	0.53	...	...	...	...	...	...	1	0.04
48	Coonoor	7	0.48	9	0.62	...	...	...	...	...	...	4	0.28
<i>North Arcot.</i>													
49	Vellore	6	0.10	14	0.24	47	0.82	...	...	...	...	3	0.05
50	Tiruvannamalai ...	3	0.10	5	0.18	2	0.07	...	...	...	...	2	0.07
51	Gudiyatham	1	0.04	6	0.24	7	0.28	...	...	...	...	...	...
52	Vaniyambadi	7	0.30	13	0.56	2	0.08	...	...	1	0.04	14	0.56
53	Tirupattur	11	0.60	14	0.76	8	0.43	...	...	...	...	...	...
54	Walajapet	1	0.09	...	...	2	0.17	...	...	...	...	...	...
<i>Ramanad.</i>													
55	Virudunagar	1	0.03	11	0.33	5	0.15	...	...	...	...	...	...
56	Srivilliputhur	4	0.12	7	0.21	...	...	...	...	...	...	...	...
57	Karaikudi	1	0.04	3	0.13	...	...	...	...	...	...	6	0.18
58	Devakottai	...	...	6	0.39	...	...	...	...	...	...	...	...
59	Sivakasi	...	...	1	0.05	1	0.05	...	...	...	...	...	...
<i>Salem.</i>													
60	Salem	142	1.39	17	0.16	3	0.03	...	...	...	...	2	0.02
<i>South Arcot.</i>													
61	Cuddalore	8	0.13	16	0.27	4	0.06	...	...	...	...	12	0.20
62	Chidambaram	...	...	2	0.07	3	0.11	...	...	...	...	1	0.03
63	Villupuram	...	...	4	0.19	2	0.29	...	...	...	...	1	0.04
<i>South Kanara.</i>													
64	Mangalore	15	0.22	78	1.16	4	0.06	...	...	...	...	4	0.06
65	Udupi	6	0.35	16	0.92	2	0.11	...	...	...	...	8	0.46
<i>Tanjore.</i>													
66	Tanjore	11	0.16	44	0.66	...	...	...	...	...	...	1	0.01
67	Kumbakonam	3	0.05	45	0.72	1	0.02	...	...	...	...	...	...
68	Negapatam	14	0.29	21	0.43	3	0.06	...	...	...	...	8	0.16

in the Municipalities in the Province of Madras during the year 1939—cont.

	Other fevers.		Dysentery.		Diarrhoea.		Pneumonia.		Other respiratory diseases.		Pulmonary tuberculosis.		Deaths from child-birth.	Deaths under one year.			Infantile mortality rate per 1,000 live births.	Serial number.
	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.		Males.	Females.	Total.		
	(7)		(8)		(9)		(10)		(11)		(12)		(13)	(14)			(15)	
2,107	3.25	1,876	2.89	1,718	2.70	...	...	7,166	11.07	1,400	2.16	245	1,112	3,539	7,651	241.62	34	
297	1.63	354	1.94	96	0.52	898	4.93	277	1.62	327	1.79	114	985	764	1,749	171.25	35	
112	2.56	65	1.49	75	1.72	10	0.22	26	0.59	66	1.51	29	190	163	353	163.88	36	
1	0.03	48	1.77	10	0.37	36	1.33	39	1.44	11	0.40	5	85	86	171	157.80	37	
1	0.04	35	1.62	49	2.13	46	1.99	32	1.39	55	2.39	7	95	93	188	161.76	38	
49	2.59	58	3.06	11	0.58	106	5.60	76	4.02	51	2.69	6	68	48	116	140.26	39	
1	0.15	7	1.07	16	2.45	21	3.22	13	1.99	2	0.30	1	32	26	67	142.14	40	
62	0.52	116	1.26	86	0.86	151	1.51	28	0.28	357	3.59	28	268	208	476	130.94	41	
129	2.63	78	1.59	65	1.32	55	1.12	26	0.53	80	1.63	19	226	140	366	175.20	42	
56	1.76	16	0.50	11	0.34	86	2.71	10	0.31	60	1.80	12	56	47	103	114.06	43	
16	0.52	15	0.49	20	0.85	41	1.35	21	0.69	112	3.69	8	55	46	101	106.64	44	
13	0.57	34	1.49	14	0.61	86	3.77	33	1.44	39	2.58	6	72	61	133	160.04	45	
166	3.62	106	2.31	126	2.74	93	2.92	63	1.37	86	1.87	61	312	236	548	201.17	46	
2	0.08	36	1.46	23	0.93	185	7.51	24	0.97	16	0.65	5	100	76	176	155.06	47	
1	0.06	17	1.18	16	1.04	67	4.67	25	1.74	21	1.16	7	52	46	97	152.75	48	
34	0.59	149	2.60	138	2.41	173	3.02	129	2.25	141	2.46	37	314	232	546	168.05	49	
17	0.61	59	2.12	42	1.51	84	3.02	5	0.18	42	1.51	12	100	70	170	150.04	50	
17	0.68	47	1.90	41	1.66	42	1.70	59	2.39	54	2.18	21	108	92	200	172.41	51	
9	0.39	12	0.52	18	0.78	14	0.61	28	1.22	46	2.00	8	61	41	102	107.36	52	
3	0.16	17	0.93	10	0.54	55	3.01	13	0.71	30	1.64	8	54	53	107	129.36	53	
10	0.89	13	1.16	18	1.60	20	1.78	5	0.14	16	1.42	2	27	25	52	135.06	54	
43	1.27	74	2.23	58	1.75	98	2.96	39	1.17	46	1.39	20	133	125	248	167.45	55	
6	0.18	51	1.57	34	1.05	78	2.40	16	0.40	49	1.51	17	113	110	223	168.04	56	
7	0.32	31	1.43	89	4.10	62	2.86	45	2.07	40	1.84	14	89	67	156	182.45	57	
76	4.95	11	0.72	29	1.90	7	0.46	5	0.32	33	2.16	12	46	43	89	113.15	58	
76	3.72	24	1.17	7	0.34	9	0.44	8	0.39	23	1.12	10	39	35	74	161.36	59	
154	1.50	128	1.25	184	1.80	347	3.39	134	1.81	147	1.43	48	316	274	590	149.74	60	
54	0.91	66	1.11	70	1.18	111	1.88	8	0.13	74	1.25	42	193	165	358	148.36	61	
83	3.31	28	1.11	19	0.75	47	1.87	8	0.31	26	1.03	29	91	66	157	155.13	62	
33	1.64	12	0.59	27	1.34	30	1.49	48	2.38	30	1.49	23	48	43	91	120.69	63	
19	0.28	26	0.38	31	0.46	127	1.90	80	1.19	198	2.96	30	115	95	210	88.49	64	
26	1.50	21	1.21	6	0.35	31	1.79	15	0.86	26	1.50	9	37	39	76	109.03	65	
45	0.67	81	1.21	93	1.39	160	2.39	26	0.38	196	2.93	47	244	203	447	157.11	66	
185	2.65	74	1.18	42	0.67	69	1.10	24	0.38	96	1.54	59	165	174	339	131.09	67	
27	0.55	71	1.48	31	0.64	52	1.07	55	1.13	88	1.81	17	162	109	271	170.12	68	

No. VI (a) (Optional)—Deaths registered from Certain Causes

Serial number.	Municipalities.	Malaria.		Enteric fever.		Measles.		Relapsing fever.		Kala-Azar.		Influenza.	
		Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.
		(1)		(2)		(3)		(4)		(5)		(6)	
<i>Tanjore—cont.</i>													
69	Mayavaram ...	...	...	2	0.06	...	...	...	...	...	...	...	...
70	Mannarkudi ...	2	0.08	12	0.53	1	0.04	...	...	...	...	...	...
71	Tiruvarur ...	21	0.03	25	1.22	19	0.93	...	...	...	...	1	0.04
<i>Tinnevely.</i>													
72	Tuticorin ...	1	0.02	2	0.03	...	...	...	...	...	...	18	0.29
73	Tinnevely ...	5	0.08	14	0.24	8	0.14	...	...	...	...	9	0.15
74	Palamcottah ...	3	0.07	12	0.43	1	0.03	...	...	...	...	1	0.03
<i>Trichinopoly.</i>													
75	Trichinopoly ...	3	0.02	58	0.40	...	...	...	...	...	...	6	0.04
76	Srirangam ...	4	0.16	9	0.36	1	0.04	...	...	...	...	1	0.04
77	Karur... ..	1	0.05	5	0.25	...	...	...	...	...	...	...	...
<i>Vizagapatam.</i>													
78	Vizagapatam ...	10	0.17	30	0.52	...	...	...	...	...	...	1	0.02
79	Vizianagram ...	15	0.33	29	0.65	...	...	...	...	...	...	...	...
80	Anakapalle ...	34	1.45	29	1.24	...	...	...	...	...	...	...	...
81	Chicacole ...	4	0.24	9	0.54	...	...	...	...	...	...	...	...
82	Bimlipatam ...	2	0.20	3	0.31	...	...	...	...	...	...	...	...
Total ...		1,394	0.38	1,938	0.54	328	0.09	1	0.00003	2	0.00005	330	0.08

Note.—Deaths from Cerebro spinal fever are nil. Deaths from Beri-beri, Typhous fever of joints, other Tubercular diseases, Whooping

in the Municipalities in the Province of Madras during the year 1939—cont.

Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths.	Rate per mille.	Deaths from child-birth.	Deaths under one year.			Infantile mortality rate per 1,000 live births.	Serial number.
													Males.	Females.	Total.		
(7)		(8)		(9)		(10)		(11)		(12)		(13)	(14)			(15)	
44	1.38	26	0.81	21	0.65	104	3.26	42	1.32	19	0.59	19	86	64	150	129.87	69
15	0.65	19	0.83	14	0.61	36	1.58	20	0.87	22	0.96	19	70	59	129	122.00	70
13	0.63	69	3.38	23	1.13	64	3.14	22	1.08	19	0.93	10	72	50	122	200.00	71
137	2.26	153	2.53	23	0.54	138	2.28	136	2.25	116	1.92	31	347	293	640	216.87	72
87	1.52	98	1.71	30	1.40	220	3.85	39	0.68	117	2.05	34	260	227	487	231.13	73
1	0.03	42	1.50	54	1.93	76	2.72	16	0.57	85	3.04	34	109	94	203	162.14	74
45	0.31	372	2.60	229	1.60	358	2.50	239	1.67	363	2.56	94	510	452	962	169.18	75
60	2.43	57	2.31	37	1.50	29	1.17	18	0.72	45	1.82	4	71	75	146	163.67	76
140	7.05	44	2.21	15	0.75	14	0.70	32	1.61	21	1.05	7	85	82	167	180.34	77
103	1.79	106	1.85	158	2.76	145	2.52	94	1.64	72	1.25	10	255	212	467	204.82	78
69	1.34	47	1.05	70	1.56	31	0.69	28	0.62	90	2.01	23	196	174	370	188.19	79
2	0.08	32	1.37	77	3.29	77	3.29	131	5.60	34	1.45	12	98	81	179	108.68	80
6	0.30	20	1.20	108	6.51	27	1.62	34	2.05	28	1.68	7	53	54	107	158.75	81
8	0.83	26	2.79	24	2.49	28	2.91	9	0.93	7	0.72	7	41	30	71	167.85	82
6,883	1.87	6,965	1.89	6,011	1.64	7,595	2.06	10,447	2.84	6,965	1.89	2,054	16,005	13,312	29,317	181.96	...

Acute-Poliomyelitis, Diphtheria, Black-water fever, Mumps, Tuberculosis cough, Leprosy and Cancer are not available.

No. VII.—Deaths from Cholera registered in the Districts in the Province of Madras during each month of the year 1939.

Number. (1)	Districts. (2)	Circles of registration. (Taluks and Municipalities.)		Villages or groups of villages and towns from which vital statistics returns were received.		January. (7)	February. (8)	March. (9)	April. (10)	May. (11)	June. (12)	July. (13)
		Number. (3)	Number from which deaths from cholera were reported. (4)	Number. (5)	Number from which deaths from cholera were reported. (6)							
1	Anantapur	12	1	880	1	...	1	...	...	...	...	...
2	Bellary	12	4	913	13	...	...	2	...	1	...	1
3	Chingleput	10	4	2,177	7	...	...	...	...	1	1	1
4	Chittoor	11	2	2,254	2	1	...	...	...	...	...	1
5	Coimbatore	16	6	1,201	6	...	2	3	...	...	...	...
6	Cuddapah	10	3	1,037	4	1	...	5	...	1	2	...
7	Godāvari, East { Plains	11	4	817	8	...	1	4	1	...	2	2
8	Godāvari, West { Agency	5	1	1,095	2	...	...	5	...	...	...	...
9	Guntūr	9	5	746	7	2	...	...	2	1	1	...
10	Kistna	13	6	947	8	...	...	...	...	1	...	7
11	Kurnool	12	2	994	12	3	...	...	...	2	...	39
12	Madras	11	5	829	14	2	...	...	...	...	...	1
13	Madura	1	1	1	1	...	2	...	...	...	...	...
14	Malabar	14	3	1,069	5	...	...	...	...	...	...	1
15	Nellore	15	1	766	1	...	...	...	1	...	...	...
16	Nilgiris, the	14	4	1,708	4	2	...	1	...	...	...	1
17	North Arcot	5	...	62	...	...	...	...	...	...	...	...
18	Ramnad	17	5	2,039	5	6	2	...	...	1	...	...
19	Salem	14	1	1,522	2	...	...	1	...	...	...	...
20	South Arcot	11	2	1,766	2	1	...	...	1	...	...	...
21	South Kanara	8	8	2,270	157	467	327	33	10	...	...	...
22	Tanjore	2	2	819	4	...	...	...	...	1	1	1
23	Tinnevely	17	14	2,598	191	406	297	71	19	3	4	3
24	Trichinopoly	12	4	1,108	8	8	...	1	...	...	2	1
25	Vizagapatam	10	7	1,163	47	80	27	11	2	1	...	...
		23	4	4,053	9	2	2	1	1	3	1	3
	Total, Madras Province ...	304	99	34,830	525	981	661	138	37	16	14	64

No. VII.—Deaths from Cholera registered in the Districts in the Province of Madras during each month of the year 1939—cont.

Number.	Districts.	August. (14)	September. (15)	October. (16)	November. (17)	December. (18)	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previ- ous 5 years.
							Males. (19)	Females. (20)	Total. (21)	Males. (22)	Females. (23)	Total. (24)	
1	Anantapur	...	...	...	...	...	...	1	1	...	0.002	0.001	0.24
2	Bellary	...	3	...	40	34	42	40	82	0.09	0.03	0.08	0.78
3	Chingleput	1	...	1	...	4	4	4	8	0.01	0.01	0.01	0.71
4	Chittoor	1	...	...	...	1	4	...	4	0.01	...	0.003	0.41
5	Coimbatore	...	...	...	...	...	3	5	8	0.002	0.004	0.003	0.51
6	Cuddapah	...	2	...	...	...	5	4	9	0.01	0.01	0.01	0.95
7	Godāvari, East { Plains	1	...	...	...	...	6	5	11	0.01	0.01	0.01	0.13
8	Godāvari, West { Agency	...	...	...	...	...	3	2	5	0.02	0.02	0.02	0.48
9	Guntūr	3	4	...	...	...	5	2	7	0.01	0.003	0.01	0.32
10	Kistna	17	...	...	...	...	13	2	15	0.01	0.002	0.01	0.32
11	Kurnool	...	...	...	16	37	37	24	61	0.06	0.04	0.05	0.37
12	Madras	...	...	...	...	...	29	27	56	0.06	0.05	0.05	0.58
13	Madura	...	4	...	...	2	1	1	2	0.003	0.003	0.003	0.24
14	Malabar	...	...	...	...	...	4	3	7	0.004	0.003	0.003	0.22
15	Nellore	...	...	...	1	...	1	...	1	0.001	...	0.0003	0.04
16	Nilgiris, the	...	...	...	...	...	3	2	5	0.004	0.003	0.003	0.52
17	North Arcot	...	...	...	1	2	...	...	...	...	...	...	0.03
18	Ramnad	...	...	...	...	...	7	5	12	0.01	0.004	0.01	0.76
19	Salem	...	...	...	...	...	1	...	1	0.001	...	0.001	0.58
20	South Arcot	...	1	2	5	9	2	...	2	0.002	...	0.001	0.45
21	South Kanara	...	...	...	...	...	453	401	854	0.37	0.33	0.35	1.46
22	Tanjore	...	...	...	2	...	3	2	5	0.005	0.003	0.004	0.02
23	Tinnevely	...	...	...	3	...	438	368	806	0.38	0.30	0.34	1.26
24	Trichinopoly	...	...	...	...	...	8	4	12	0.01	0.004	0.01	0.75
25	Vizagapatam	...	1	...	1	3	77	48	125	0.08	0.05	0.07	0.84
		...	...	...	1	1	13	3	16	0.01	0.002	0.005	0.08
	Total, Madras Province ...	23	15	3	70	93	1,162	953	2,115	0.65	0.04	0.05	0.55

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Number.	Districts.	Circles of registration (Taluk and municipal-ties).		Villages or groups of villages and towns from which vital statistics returns were received.		January.	February.	March.	April.	May.	June.	July.	August.
		Number.	Number from which small-pox deaths were reported.	Number.	Number from which small-pox deaths were reported.	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Anantapur	12	7	880	20	3	...	1	13	2	5	2	9
2	Bellary	12	2	918	3	5	2	...	1	...	...	...	...
3	Chingleput	10	9	2,177	192	52	67	111	187	75	60	91	77
4	Chittoor	11	10	2,254	56	19	11	17	16	13	11	13	2
5	Coimbatore	16	11	1,201	23	...	7	1	1	7	...	3	10
6	Cuddapah	10	5	1,037	12	...	...	...	...	16	7	3	3
7	Godāvāri, East { Plains Agency	11	8	817	9	1	...	8	...	8	...	...	1
8	Godāvāri, West	6	...	1,095	...	...	...	...	...	...	...	...	...
9	Guntur	8	4	746	6	7	25	20	34	16	12	5	...
10	Kistna	13	10	947	35	8	3	10	13	6	11	9	2
11	Kurnool	12	7	904	22	4	8	8	10	15	19	12	7
12	Madras	11	10	829	37	8	4	63	44	17	4	2	...
13	Madura	14	1	1,069	1	1	...	...	...	5	1	...	...
14	Malabar	15	2	766	49	12	23	19	12	11	2	...	...
15	Nellore	14	11	1,708	30	8	7	5	...	...	...	4	...
16	Nilgiris, the	5	...	62	...	...	...	...	...	22	26	...	...
17	North Arcot	17	14	2,039	92	34	43	34	18	22	7	25	22
18	Rannad	14	2	1,522	12	2	20	4	2	2	11	2	...
19	Salem	11	11	1,786	51	16	34	34	25	16	11	45	51
20	South Arcot	11	10	2,270	156	33	18	25	31	14	7	...	...
21	South Kanara	8	4	819	4	2	1	...	...	3	10	20	42
22	Tanjore	17	15	2,596	95	32	24	21	7	28	...	3	...
23	Tinnevely	12	4	1,106	8	1	...	5	...	...	6	5	1
24	Trichinopoly	10	8	1,163	40	9	16	19	9	13	...	...	...
25	Vizagapatam	23	7	4,053	7	...	...	3	4	...	...	1	...
Total, Madras Province		304	176	84,830	961	308	355	407	381	284	202	251	239

No. VIII.—Deaths from Small-pox registered in the Districts in the Province of Madras during each month of the year 1939—cont.

Number.	Districts.	September.	October.	November.	December.	Total.		Number of deaths among children.		Ratio of death per 1,000 of population.		Mean ratio per 1,000 for previous 5 years.
		(15)	(16)	(17)	(18)	Males.	Females.	Under 1 year.	From 1 to 10 years.	Males.	Females.	
1	Anantapur	...	...	...	...	30	27	9	39	0.06	0.05	0.29
2	Bellary	...	...	...	...	7	3	6	3	0.01	0.01	0.26
3	Chingleput	87	65	35	31	421	417	146	265	0.50	0.51	0.23
4	Chittoor	11	15	4	2	64	64	30	65	0.09	0.09	0.16
5	Coimbatore	2	4	12	12	32	27	10	23	0.02	0.02	0.11
6	Cuddapah	...	3	...	...	13	19	6	6	0.03	0.04	0.38
7	Godāvāri, East { Plains Agency	3	2	1	...	12	12	10	6	0.01	0.01	0.16
8	Godāvāri, West	...	...	...	...	...	...	...	...	...	...	0.03
9	Guntur	...	...	...	...	6	7	5	3	0.01	0.01	0.03
10	Kistna	...	...	...	...	80	56	25	40	0.08	0.06	0.19
11	Kurnool	...	...	...	...	32	29	11	12	0.05	0.05	0.17
12	Madras	...	...	...	...	55	46	23	46	0.11	0.09	0.51
13	Madura	...	...	...	...	139	129	28	47	0.41	0.42	0.30
14	Malabar	...	...	...	...	58	48	2	...	0.002	0.001	0.11
15	Nellore	...	...	...	...	22	32	5	7	0.03	0.03	0.12
16	Nilgiris, The	...	...	...	...	54	54	22	8	0.04	0.04	0.15
17	North Arcot	...	...	...	...	...	...	...	...	...	...	0.09
18	Rannad	...	...	...	...	148	148	68	105	0.14	0.13	0.17
19	Salem	...	...	...	...	10	9	14	5	0.01	0.01	0.28
20	South Arcot	...	...	...	...	71	71	50	56	0.06	0.06	0.20
21	South Kanara	...	...	...	...	177	177	93	112	0.15	0.14	0.26
22	Tanjore	...	...	...	...	4	5	...	2	0.01	0.01	0.10
23	Tinnevely	...	...	...	...	152	149	132	74	0.13	0.12	0.16
24	Trichinopoly	...	...	...	...	3	39	17	21	0.01	0.01	0.08
25	Vizagapatam	...	...	...	...	43	39	82	7	0.05	0.04	0.04
Total, Madras Province		163	210	164	156	1,526	1,526	724	954	0.07	0.07	0.18

No. IX.—Deaths from Fevers registered in the Districts in the Province of Madras during each month of the year 1939.

Number. (1)	Districts, (2)	Circles of registration (Taluk and Municipalities).		Villages or groups of villages and towns from which vital statistics returns were received.		January. (7)	February. (8)	March. (9)	April. (10)	May. (11)	June. (12)	July. (13)
		Number. (3)	Number from which deaths from fevers were reported. (4)	Number. (5)	Number from which deaths from fevers were reported. (6)							
1	Anantapur	12	12	880	720	773	926	2,182	1,323	845	673	607
2	Bellary	12	12	913	730	618	634	1,081	854	647	568	784
3	Chingleput	10	10	2,177	1,135	535	518	623	485	573	517	441
4	Chittoor	11	11	2,254	1,457	658	647	968	773	717	628	581
5	Coimbatore	16	16	1,201	911	951	843	968	824	849	810	838
6	Cuddapah	10	10	1,137	1,006	1,144	985	1,337	1,114	1,170	918	947
7	Godāvāri, East { Plains	11	11	817	776	1,356	1,273	1,355	1,120	1,371	1,483	1,464
8	Godāvāri, East { Agency	5	5	1,095	751	402	295	333	292	272	267	289
9	Godāvāri, West	9	9	746	636	1,001	872	964	744	875	1,108	1,077
10	Guntur	13	13	947	895	1,383	1,163	1,261	1,308	1,908	1,834	1,746
11	Kistna	12	12	984	909	869	742	816	649	911	1,013	890
12	Kurnool	11	11	830	779	1,226	1,105	1,637	1,329	1,181	942	1,114
13	Madras	1	1	1	1	186	191	226	179	213	185	176
14	Malabar	14	14	1,069	682	589	527	601	498	612	523	655
15	Nellore	15	15	766	705	1,307	1,169	1,218	1,445	1,879	2,056	2,461
16	Nilgiris, The	14	14	1,708	1,181	1,062	912	865	722	1,108	957	769
17	North Arcot	5	5	62	54	92	65	111	106	147	172	131
18	Ramanad	17	17	2,039	1,509	1,036	975	996	770	871	935	835
19	Salem	14	14	1,522	1,105	1,013	973	964	897	966	1,006	964
20	South Arcot	11	11	1,766	1,325	1,326	1,170	1,318	1,082	1,351	1,148	1,098
21	South Kanara	11	11	2,270	1,459	878	849	861	711	768	803	690
22	Tanjore	8	8	819	761	867	843	697	648	887	675	982
23	Tinnevely	17	17	2,686	1,167	455	400	421	364	384	462	415
24	Trichinopoly	12	12	1,106	853	831	685	776	615	713	724	640
25	Vizagapatam	10	10	1,163	808	641	611	640	586	711	663	605
		23	23	4,053	3,224	3,887	3,167	3,437	3,109	2,841	2,978	3,238
	Total, Madras Province	304	304	34,830	25,539	25,681	22,570	26,654	22,547	24,570	24,106	24,372

No. IX.—Deaths from Fevers registered in the Districts in the Province of Madras during each month of the year 1939—cont.

Number.	Districts.	August. (14)	September. (15)	October. (16)	November. (17)	December. (18)	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of population for the previous 3 years. (25)
							Males. (19)	Females. (20)	Total. (21)	Males. (22)	Females. (23)	Total. (24)	
1	Anantapur	632	615	967	1,413	1,540	6,247	6,249	12,496	11'58	12'23	11'90	7'16
2	Bellary	744	563	944	1,083	1,092	4,890	4,922	9,912	10'12	10'32	10'22	7'78
3	Chingleput	448	431	486	655	692	3,187	3,247	6,434	3'81	3'97	3'83	3'41
4	Chittoor	5'8	577	584	760	986	4,211	4,206	8,417	5'70	5'93	5'81	5'88
5	Coimbatore	787	848	780	934	1,228	5,375	5,284	10,659	4'41	4'31	4'36	4'38
6	Cuddapah	1,002	1,005	1,307	1,730	1,913	7,313	7,257	14,570	15'11	15'59	15'35	10'47
7	Godavari, East { Plains	1,884	1,773	1,808	1,752	1,526	8,987	9,118	18,115	10'85	10'71	10'78	9'09
	Agency	350	386	400	372	433	2,126	1,915	4,041	17'60	15'99	16'80	16'99
8	Godavari, West	1,287	991	929	1,147	1,213	6,200	5,958	12,158	10'29	9'59	9'94	7'42
9	Guntur	2,185	1,855	1,854	1,936	2,360	10,665	10,228	20,893	10'36	10'16	10'26	8'45
10	Kistna	1,101	872	774	920	1,382	5,597	5,342	10,939	8'80	8'63	8'72	7'45
11	Kurnool	1,461	1,395	1,557	2,314	2,399	8,995	8,765	17,760	17'26	17'38	17'83	12'98
12	Madras	221	187	173	182	209	1,163	1,175	2,338	3'41	3'38	3'61	3'62
13	Madura	558	536	600	767	1,025	3,841	3,650	7,491	3'55	3'27	3'41	3'69
14	Malabar	1,896	1,584	1,233	1,075	1,166	9,316	9,167	18,483	5'42	5'04	5'23	5'32
15	Nellore	8'8	751	912	1,115	1,237	5,789	5,459	11,248	7'77	7'35	7'57	6'70
16	Nilgiris, The	87	92	84	101	132	698	622	1,320	7'68	8'05	7'86	8'11
17	North Arcot	802	703	747	1,197	1,474	5,587	5,754	11,341	4'93	5'06	5'00	4'94
18	Ramanad	902	867	1,120	1,379	1,584	6,351	6,284	12,635	7'28	6'49	6'87	7'29
19	Salem	951	864	953	1,149	1,429	7,049	6,790	13,839	5'81	5'55	5'71	6'31
20	South Arcot	767	679	767	1,010	1,008	4,911	4,935	9,846	4'01	4'01	4'01	3'91
21	South Kanara	838	701	655	635	884	4,613	4,499	9,112	6'94	6'35	6'64	6'77
22	Tanjore	393	448	432	686	520	2,612	2,748	5,360	2'28	2'21	2'25	2'51
23	Tinnevely	708	728	809	1,032	1,405	4,856	4,810	9,666	4'91	4'53	4'72	4'47
24	Trichinopoly	570	534	569	883	1,054	3,852	4,115	8,067	4'22	4'20	4'22	4'25
25	Vizagapatam	3,882	3,630	3,378	3,456	3,804	20,564	20,208	40,802	18'05	11'96	12'49	14'67
	Total, Madras Province	25,832	23,915	24,922	29,667	33,708	155,235	152,707	307,942	7'13	6'87	7'00	6'66

No. X.—Deaths from Dysentery and Diarrhoea registered in the Districts in the Province of Madras during each month of the year 1939.

Number.	Districts.	Circles of registration (Taluk and Municipalities).		Villages or groups of villages and towns from which vital statistics returns were received.		January.	February.	March.	April.	May.	June.	July.
		Number.	Number from which deaths from dysen- tery and diarrhoea were reported.	Number.	Number from which deaths from dysentery and diarrhoea were reported.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	12	12	880	421	180	153	202	124	119	146	169
2	Bellary	12	12	913	324	121	104	144	94	112	108	259
3	Chingleput	10	10	2,177	753	302	304	274	256	271	241	216
4	Chittoor	11	11	2,254	903	313	327	303	250	245	243	259
5	Coimbatore	16	16	1,201	736	432	399	439	362	474	480	486
6	Cuddapah	10	10	1,037	360	93	69	64	58	101	77	113
7	Godāvari, East { Plains	11	11	817	489	165	172	225	205	248	238	475
	Agency	5	5	1,095	222	24	19	30	28	34	22	34
8	Godāvari, West	9	9	746	436	213	191	235	156	239	236	394
9	Guntur	13	13	947	621	311	254	290	332	461	373	491
10	Kistna	12	12	994	554	218	243	231	202	148	135	287
11	Kurnool	11	11	829	343	83	164	95	94	85	70	103
12	Madras	1	1	1	1	234	234	255	247	318	282	215
13	Madura	14	14	1,069	392	269	221	252	199	261	261	231
14	Malabar	15	15	766	699	409	392	438	614	1,081	1,333	1,445
15	Nellore	14	14	1,708	765	258	225	266	254	441	349	289
16	Nilgiris, The	5	5	62	37	24	12	31	65	90	104	64
17	North Arcot	17	17	2,039	1,126	519	509	445	314	407	338	333
18	Ramnad	14	14	1,522	352	240	177	176	177	206	211	216
19	Salem	11	11	1,766	543	180	198	196	141	245	212	179
20	South Arcot	11	11	2,270	1,040	376	377	320	283	281	320	275
21	South Kanara	8	8	819	390	161	114	64	54	78	82	117
22	Tanjore	17	17	2,596	744	261	226	152	121	184	153	165
23	Tinnevely	12	12	1,103	586	374	244	232	166	224	263	288
24	Trichinopoly	10	10	1,163	533	275	265	237	204	275	257	248
25	Vizagapatam	23	23	4,053	1,131	382	333	298	401	468	474	496
	Total, Madras Province ...	304	304	34,830	14,501	6,417	5,826	5,894	5,401	7,046	7,038	7,847

No. X.—Deaths from Dysentery and Diarrhoea registered in the Districts in the Province of Madras during each month of the year 1939—cont.

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Number.	Districts.	August. (14)	September. (15)	October. (16)	November. (17)	December. (18)	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previ- ous 5 years.
							Males. (19)	Females. (20)	Total. (21)	Males. (22)	Females. (23)	Total. (24)	
1	Anantapur	257	241	234	280	239	1,280	1,064	2,344	2.37	2.08	2.23	1.85
2	Bellary	228	258	183	217	183	1,080	931	2,011	2.19	1.95	2.07	2.05
3	Chingleput	253	193	230	323	421	1,661	1,623	3,284	1.98	1.98	1.98	1.74
4	Chittoor	254	216	221	312	423	1,812	1,554	3,366	2.45	2.19	2.32	2.46
5	Coimbatore	517	471	480	498	468	2,685	2,801	5,486	2.20	2.28	2.24	2.70
6	Cuddapah	141	140	125	168	169	706	612	1,318	1.45	1.31	1.39	1.19
7	Godāvari, East { Plains	675	455	256	173	145	1,796	1,686	3,482	2.16	1.98	2.07	1.19
	Agency	62	70	47	43	32	242	203	445	2.00	1.69	1.85	1.09
8	Godāvari, West	573	353	190	149	154	1,603	1,480	3,083	2.66	2.38	2.52	1.77
9	Guntur	894	580	432	391	400	2,768	2,441	5,209	2.69	2.42	2.56	2.05
10	Kistna	496	340	169	201	165	1,528	1,807	2,335	2.40	2.11	2.26	1.79
11	Kurnool	234	206	136	177	174	848	673	1,521	1.63	1.33	1.48	1.53
12	Madras	314	230	305	546	444	1,752	1,872	3,624	5.13	6.11	5.60	3.42
13	Madura	240	216	208	298	519	1,625	1,550	3,175	1.50	1.39	1.44	2.38
14	Malabar	1,002	628	426	356	444	4,191	4,327	8,518	2.44	2.38	2.41	2.27
15	Nellore	875	290	288	399	485	2,092	1,827	3,919	2.81	2.46	2.64	2.19
16	Nilgiris, The	35	33	12	29	28	271	256	527	2.98	3.31	3.14	3.15
17	North Arcot	295	256	340	516	869	2,689	2,452	5,141	2.37	2.15	2.27	2.50
18	Ramnad	192	200	253	367	553	1,501	1,467	2,968	1.72	1.52	1.61	1.83
19	Salem	140	123	117	148	235	1,111	1,003	2,114	0.91	0.82	0.87	1.27
20	South Arcot	288	277	255	341	513	2,024	1,862	3,886	1.65	1.51	1.58	2.08
21	South Kanara	148	142	145	141	226	748	725	1,472	1.12	1.02	1.07	1.69
22	Tanjore	168	182	161	270	254	1,128	1,169	2,297	0.98	0.94	0.96	1.34
23	Tinnevely	298	253	328	487	926	2,029	2,054	4,083	2.05	1.93	1.99	2.16
24	Trichinopoly	237	219	250	392	571	1,780	1,650	3,430	1.90	1.68	1.79	2.12
25	Vizagapatam	768	554	417	392	385	2,908	2,460	5,368	1.84	1.45	1.54	1.57
	Total, Madras Province ...	9,064	7,126	6,208	7,614	9,425	43,858	41,048	84,906	2.00	1.85	1.93	1.96

No. XI.—Deaths from Respiratory Diseases registered in the Districts in the Province of Madras during each month of the year 1939.

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Number.	Districts.	Circles of registration (taluks and municipalities).		Villages or Groups of villages and towns from which vital statistics returns were received.		January.	February.	March.	April.	May.	June.	July.
		Number.	Number from which deaths from respiratory diseases were reported.	Number.	Number from which deaths from respiratory diseases were reported.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	12	12	880	392	199	197	330	187	152	155	174
2	Bellary	12	12	913	296	150	158	236	182	157	135	173
3	Chingleput	10	10	2,177	795	355	328	363	303	337	315	259
4	Chittoor	11	11	2,254	730	232	223	235	216	296	203	191
5	Coimbatore	16	16	1,201	815	699	597	691	611	694	634	666
6	Cuddapah	10	10	1,037	296	95	91	112	115	103	77	93
7	Gōdāvari, East { Plains Agency	11	11	817	451	312	302	294	287	282	332	327
8	Gōdāvari, West ...	5	5	1,095	244	54	55	68	63	75	68	44
9	Guntūr	9	9	743	437	277	253	246	242	290	284	292
10	Kistna	13	13	947	579	418	343	363	366	458	448	430
11	Kurnool	12	12	994	572	289	217	272	218	235	280	281
12	Madras	11	11	829	298	161	131	165	116	146	136	102
13	Madura	1	1	1	1	630	647	740	657	848	696	571
14	Malabar	14	14	1,089	665	689	642	618	543	556	581	579
15	Nellore	15	15	736	693	638	614	633	624	802	779	924
16	Nilgiris, the	14	14	1,708	527	176	162	204	157	219	184	171
17	North Arcot	5	5	62	37	59	42	66	85	82	76	78
18	Ramnad	17	17	2,039	1,060	460	410	405	391	425	357	359
19	Salem	14	14	1,522	614	472	337	324	354	368	338	373
20	South Arcot	11	11	1,766	709	318	313	315	284	301	255	274
21	South Kanara	11	11	2,270	958	395	335	364	351	341	379	331
22	Tanjore	8	8	819	423	254	177	177	173	139	173	204
23	Tinnevely	17	17	2,596	657	290	228	242	199	227	230	194
24	Trichinopoly	12	12	1,106	662	398	328	376	296	284	339	347
25	Vizagapatam	10	10	1,163	389	373	352	330	286	334	322	339
		23	23	4,053	895	440	347	371	355	321	296	332
	Total, Madras Province ...	304	304	34,830	14,195	8,833	7,827	8,540	7,642	8,382	8,072	8,108

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No. XI.—Deaths from Respiratory Diseases registered in the Districts in the Province of Madras during each month of the year 1939—cont.

Number.	Districts.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous 5 years.
							Males.	Females.	Total.	Males.	Females.	Total.	
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
1	Anantapur	162	173	199	215	226	1,329	1,040	2,369	2.46	2.04	2.25	1.92
2	Bellary	144	195	193	182	185	1,143	950	2,093	2.32	1.99	2.16	2.70
3	Chingleput	284	270	292	407	353	2,093	1,773	3,866	2.50	2.17	2.33	2.04
4	Chittoor	181	184	199	236	251	1,443	1,114	2,557	1.95	1.57	1.77	2.02
5	Coimbatore	604	628	627	733	858	4,295	3,767	8,062	3.53	3.07	3.29	3.02
6	Cuddapah	93	80	111	119	137	707	519	1,226	1.46	1.11	1.29	1.59
7	Gōdāvari, East { Plains Agency	373	399	359	369	304	2,117	1,823	3,940	2.56	2.14	2.34	2.39
8	Gōdāvari, West ...	53	53	77	80	73	413	350	763	3.42	2.22	3.17	2.80
9	Guntūr	327	300	303	342	307	1,836	1,327	3,163	3.05	2.62	2.83	2.48
10	Kistna	558	497	493	537	527	3,001	2,437	5,438	2.92	2.42	2.67	2.38
11	Kurnool	346	334	302	309	313	1,836	1,561	3,397	2.89	2.52	2.71	2.55
12	Madras	131	129	129	144	164	860	694	1,554	1.85	1.38	1.61	1.79
13	Madura	705	606	777	912	777	4,406	4,160	8,566	12.91	13.59	13.23	11.68
14	Malabar	572	625	635	808	979	4,251	3,576	7,827	3.93	3.21	3.56	3.00
15	Nellore	788	751	585	612	605	4,815	3,540	8,355	2.81	1.95	2.36	2.06
16	Nilgiris, The	157	162	172	227	254	1,310	935	2,245	1.76	1.26	1.51	1.53
17	North Arcot	71	52	62	65	88	457	369	826	5.03	4.78	4.91	4.77
18	Ramnad	385	336	395	510	561	2,791	2,203	4,994	2.47	1.94	2.20	2.05
19	Salem	344	345	406	496	542	2,577	2,122	4,699	2.95	2.18	2.56	2.11
20	South Arcot	270	242	291	314	373	1,933	1,597	3,530	1.59	1.31	1.45	1.33
21	South Kanara	333	300	330	421	399	2,315	1,964	4,279	1.89	1.60	1.74	1.68
22	Tanjore	215	186	162	189	205	1,275	979	2,254	1.92	1.38	1.64	1.63
23	Tinnevely	236	239	231	282	242	1,583	1,257	2,849	1.88	1.01	1.19	1.11
24	Trichinopoly	342	319	399	508	582	2,520	1,998	4,518	2.55	1.88	2.20	1.92
25	Vizagapatam	274	310	310	398	473	2,168	1,933	4,101	2.32	1.96	2.14	2.05
		363	354	339	371	379	2,286	1,982	4,268	1.45	1.17	1.22	1.60
	Total, Madras Province ...	8,311	8,069	8,383	9,806	10,157	55,860	46,270	102,130	2.57	2.08	2.32	2.23

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No. XII.—Deaths from Plague registered in the Districts in the Province of Madras during each month of the year 1939.

Number.	Districts.	Circles of registration (taluks and municipalities).			Villages or groups of villages and towns from which vital statistics returns were received.		January. (7)	February. (8)	March (9)	April. (10)	May. (11)	June. (12)	July. (13)
		Number.	Number from which deaths from plague were reported.	Number.	Number from which deaths from plague were reported.								
1	Anantapur	12	...	880	...	...	...	...	...	...	...	...	...
2	Bellary	12	...	913	...	...	...	...	...	...	...	...	...
3	Chingleput	10	...	2,177	...	...	...	...	...	...	...	...	...
4	Chittoor	11	6	2,254	11	...	6	...	...	...	...	...	...
5	Coimbatore	16	3	1,201	13	...	8	2	1	...	6	...	...
6	Cuddapah	10	...	1,037	...	...	...	...	...	...	...	...	1
7	Godavari, East { Plains Agency	11	...	817	...	...	...	...	...	...	...	...	...
8	Godavari, West	5	...	1,095	...	...	...	...	...	...	...	...	...
9	Guntur	9	...	746	...	...	...	...	...	...	...	...	...
10	Kistna	13	...	947	...	...	...	...	...	...	...	...	...
11	Kurnool	12	...	994	...	...	...	...	...	...	...	...	...
12	Madras	11	...	829	...	...	...	...	...	...	...	...	...
13	Madura	1	...	1	...	...	...	...	...	...	...	...	...
14	Malabar	14	4	1,069	25	32	34	19	...	...	...	1	...
15	Nellore	15	3	766	8	...	...	...	...	...	1	...	...
16	Nilgiris, the	14	...	1,703	...	...	...	...	...	...	...	...	2
17	North Arcot	5	3	62	5	...	...	2	1	...	...	...	2
18	Ramnad	17	...	2,039	...	...	...	...	...	...	...	...	...
19	Salem	14	...	1,522	...	...	...	...	...	...	...	...	...
20	South Arcot	11	4	1,766	49	36	31	12	3	6	...	3	2
21	South Kanara	11	...	2,270	...	...	...	...	...	...	...	...	...
22	Tanjore	8	...	819	2	...	...	...	...	...	...	...	...
23	Tinnevely	17	2	2,596	...	...	...	...	...	...	...	...	...
24	Trichinopoly	12	...	1,106	...	...	...	...	...	...	...	...	...
25	Viragapatam	10	...	1,163	...	...	...	...	...	...	...	...	...
	Viragapatam	23	...	4,053	...	...	...	...	...	...	...	...	...
	Total, Madras Province	304	25	34,830	108	74	79	85	6	13	5	...	7

No. XII.—Deaths from Plague registered in the Districts in the Province of Madras during each month of the year 1939—cont.

Number.	Districts.	(14) August.	(15) September.	(16) October.	(17) November.	(18) December.	Total.			Ratio of deaths per 1,000 of population.			(25) Mean ratio per 1,000 for pre- vious 5 years.
							(19) Males.	(20) Females.	(21) Total.	(22) Males.	(23) Females.	(24) Total.	
1	Anantapur	..	..	..	..	..	..	..	..	..	..	..	0.05
2	Bellary	..	..	..	..	..	..	..	..	..	..	..	0.34
3	Chingleput	..	..	..	..	..	..	..	..	..	..	..	..
4	Chittoor	..	..	1	..	1	10	11	21	0.01	0.02	0.02	0.02
5	Coimbatore	..	8	5	7	15	18	30	48	0.02	0.02	0.02	0.03
6	Cuddapah	..	..	..	..	..	..	..	..	..	..	..	0.002
7	Godavari, East { Plains Agency	..	..	..	..	..	..	..	..	..	..	..	..
8	Godavari, West	..	..	..	..	..	..	..	..	..	..	..	..
9	Guntur	..	..	..	..	..	..	..	..	..	..	..	0.002
10	Kistna ..	..	..	..	..	..	..	..	..	..	..	..	..
11	Kurnool	..	..	..	..	..	..	..	..	..	..	..	0.001
12	Madras ..	..	..	5	..	3	38	57	95	0.04	0.05	0.04	0.20
13	Madura	..	1	1	1	..	4	1	5	0.002	0.001	0.001	0.01
14	Malabar	..	..	..	..	..	..	..	..	..	..	..	0.001
15	Nellore ..	..	..	2	..	1	5	5	10	0.06	0.07	0.06	0.12
16	Nilgris, the	..	..	..	..	..	..	..	..	..	..	..	0.003
17	North Arcot	..	..	..	..	..	..	..	..	..	..	..	..
18	Ramnad	..	..	..	..	..	72	70	142	0.06	0.06	0.06	0.01
19	Salem ..	..	4	9	10	22	..	..	..	..	..	..	..
20	South Arcot	..	..	..	..	..	..	..	..	..	..	..	..
21	South Kanara	..	..	1	2	..	1	2	3	0.002	0.003	0.002	0.001
22	Tanjore	..	..	..	..	..	..	..	..	..	..	..	..
23	Tinnevely	..	..	..	..	..	..	..	..	..	..	..	..
24	Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	0.0002
25	Visagapatam ..	..	..	..	..	..	..	..	..	..	..	..	..
	Total, Madras Province	6	13	24	20	43	148	176	324	0.01	0.01	0.01	0.03

APPENDIX II.

Table showing Health Services in Rural and Urban areas of the Province of Madras during 1939 (prescribed in G.O. Ms. No. 1235, P.H., dated 7th June 1933).

Districts.	Rural areas.												Urban areas.											
	Medical Officers of Health.						Epidemic staff.	Sanitary and Health Inspectors.	Vaccinators.		School Medical Officers.	Other Health Staff.	Medical Officers of Health.						Sanitary and Health Inspectors.	Vaccinators.		Inspectors of Vaccination.	School Medical Officers.	Other Health Staff.
	Holding D.P.H. and other foreign qualifications.		Holding Indian University degree in Public Health (B.S.Sc.) corresponding with D.P.H., Calcutta.	Holding Diploma in Public Health corresponding with Licentiate.		Male.			Female.	Holding D.P.H. and other foreign qualifications.			Holding Indian University degree in Public Health (B.S.Sc.) corresponding with D.P.H., Calcutta.		Holding Diploma in Public Health corresponding with Licentiate.									
	Whole time.	Part-time.		Whole time.	Part-time.								Whole time.	Part-time.	Whole time.	Part-time.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Vizagapatam	...	...	1	...	2	...	2	29	60	2	...	...	1	...	...	...	1	...	15	8	1	...	...	...
Godavari, East	...	...	1	...	1	...	1	19	40	...	...	...	...	...	...	...	...	...	11	7	...	...	...	...
Godavari, West	...	...	1	...	...	...	...	12	23	1	...	...	...	...	1	...	...	...	12	6	1	...	...	...
Kistna	...	...	1	...	1	...	...	15	33	...	...	...	...	...	1	...	...	...	13	7	1	...	...	...
Guntur	...	...	1	...	1	...	...	18	31	...	...	...	...	...	...	...	...	...	4	2	...	...	...	...
Nellore	...	...	1	...	1	...	...	20	18	...	...	...	...	...	1	...	...	...	11	6	...	...	...	...
Chingleput	1	...	1	...	2	...	2	15	24	...	...	...	1	...	...	...	...	...	10	...	...	...	...	...
South Arcot	...	...	...	...	...	...	...	11	20	1	...	...	1	...	...	...	...	...	18	...	...	...	...	...
Trichinopoly	...	...	1	...	2	...	...	16	28	...	...	...	...	...	3	...	...	...	22	12	1	...	...	...
Tanjore	...	...	...	...	...	...	...	16	28	...	...	...	...	...	3	...	...	...	17	1	...	...	...	...
Madura	...	...	1	...	1	...	4	19	30	...	...	...	...	...	1	...	...	...	30	...	...	...	...	...
Ramnad	...	...	1	...	...	...	1	17	27	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Tinnevely	...	...	1	...	1	...	...	13	25	1	...	...	...	...	1	...	...	...	13	6	1	...	...	...
Kurnool	...	...	1	...	1	...	...	11	22	...	...	...	...	...	6	...	...	...	3	...	...	...	...	...
Cuddapah	...	...	1	...	...	...	...	10	17	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...
Anantapur	...	...	1	...	...	...	1	12	18	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Chittoor	...	...	1	...	1	...	...	10	20	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...
Bellary	...	...	1	...	...	...	5	12	16	...	...	...	...	...	...	...	...	...	12	4	...	...	...	...
North Arcot	...	...	1	...	...	...	1	16	26	1	...	...	...	...	1	...	...	...	9	...	...	...	...	...
Salem	...	...	1	...	...	...	...	17	35	...	...	...	...	...	1	...	...	...	22	9	...	...	...	...
Coimbatore	...	...	1	...	1	...	5	12	30	1	...	...	...	...	...	...	...	...	5	3	...	...	...	...
The Nilgiris	...	...	1	...	...	...	1	4	7	...	...	...	...	...	...	...	...	...	12	10	3	...	...	...
Malabar	1	...	1	...	2	...	...	21	35	6	...	...	...	...	1	...	...	...	14	7	1	...	...	...
South Kanara	...	...	1	...	...	...	...	8	19	1	...	...	...	...	...	...	...	...	7	3	...	...	...	...
Madras Corporation	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	45	53	4	17	6	...

Note.—The statement does not include the posts of Reserve Health Officers and the Provincial staff at headquarters.

APPENDIX III.

Maternity and child-welfare centres, Health visitors and trained midwives in Rural and Urban areas in the Province of Madras during 1939 (prescribed in G.O. Ms. No. 1235, P.H., dated 7th June 1933.)

Serial number.	Districts.	Maternity and child-welfare centres maintained by						Trained visitors.		Trained midwives.		Trained dhaies.	
		Government.		Local and municipal bodies.		Other agencies.		Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
		Rural.	Urban.	Rural.	Urban.	Rural.	Urban.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Anantapur	...	...	2	3	...	...	...	1	30	10	...	...
2	Bellary	...	...	19	1	2	1	...	...	21	12	...	...
3	Chingleput	...	...	...	2	5	...	...	...	61	23	...	...
4	Chittoor	...	...	...	7	2	...	1	2	46	10	...	...
5	Coimbatore	...	...	12	...	...	...	...	...	45	55	...	...
6	Cuddapah	...	...	1	...	...	...	...	...	28	8	...	...
7	Godavari, East	...	...	6	2	...	2	...	...	107	29	...	...
8	Godavari, West	...	...	9	2	...	...	1	...	40	6	...	...
9	Guntur	...	...	3	2	...	1	...	...	77	27	...	...
10	Kistna	...	...	8	4	...	...	1	1	8	19	...	...
11	Kurnool	...	...	1	...	...	...	1	...	44	21	...	...
12	Madras	...	...	...	13	...	...	...	32	...	82	...	...
13	Madura	...	...	2	7	...	1	1	1	29	82	...	...
14	Malabar	...	...	2	6	...	...	...	...	61	54	...	...
15	Nellore	...	...	...	...	...	...	...	...	29	21	...	...
16	Nilgiris, The	...	...	1	3	...	...	...	2	13	17	...	...
17	North Arcot	...	...	3	4	1	1	...	...	48	46	...	...
18	Ramnad	...	...	8	4	...	...	...	2	77	21	...	...
19	Salem	...	...	18	3	...	...	1	2	66	13	...	...
20	South Arcot	...	...	2	6	...	...	...	...	44	17	...	...
21	South Kanara	...	...	...	2	...	1	...	...	37	35	...	...
22	Tanjore	...	...	15	4	...	1	2	...	82	48	...	...
23	Tinnevely	...	...	2	...	...	...	...	1	43	20	...	...
24	Trichinopoly	...	...	3	3	...	4	...	...	70	33	...	...
25	Vizagapatam	...	...	5	4	...	...	1	...	53	29	...	...
Total		4	...	122	84	10	16	9	44	1,160	738	...	...

VACCINATION STATEMENT.

ANNEXURE I.

Statement showing inspection of vaccinated cases by District Health Officers and their Assistants during 1939-40.

Number and name of district.	Total number of cases vaccinated during the year.		Percentage of cases inspected to total number vaccinated.
	Number of cases vaccinated during the year.	Number of cases inspected during the year.	
1 Anantapur ...	102,282	2,191	2.1
2 Arcot, North ...	208,988	1,914	0.9
3 Arcot, South ...	188,772	1,830	1.0
4 Bellary ...	87,800	2,536	2.9
5 Chingleput ...	188,390	988	0.5
6 Chittoor ...	134,361	3,602	2.2
7 Coimbatore ...	207,185	2,532	1.2
8 Cuddapah ...	115,929	1,078	0.9
9 Godāvari, East ...	122,905	1,441	1.2
10 Godāvari, West ...	66,272	2,244	3.4
11 Guntūr ...	189,449	1,383	1.0
12 Kistna ...	120,551	1,772	1.5
13 Kurnool ...	185,443	2,068	1.5
14 Madura ...	182,938	3,947	2.2
15 Malabar ...	424,964	4,773	1.1
16 Nellore ...	132,877	773	0.6
17 Nilgiris, The ...	24,730	183	0.7
18 Ramnad ...	139,012	343	0.2
19 Salem ...	192,203	2,844	1.5
20 South Kanara ...	89,902	2,566	2.8
21 Tanjore ...	160,019	3,006	1.9
22 Tinnevely ...	171,328	3,436	2.0
23 Trichinopoly ...	143,362	3,834	2.7
24 Vizagapatam ...	265,488	2,754	1.04

VACCINATION STATEMENT—cont.

ANNEXURE II.

Statement showing inspection of vaccinated cases by Municipal Health Officers during 1939-40.

Number and names of municipalities.	Total number of cases vaccinated during the year.		Total number of cases inspected during the year.		Percentage of cases inspected to total number vaccinated.	
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.
1. Adōni ...	1,385	3,067	1,041	1,856	75.2	60.5
2. Bellary ...	2,032	5,198	1,712	2,447	84.3	47.1
3. Bezwada ...	2,480	8,945	2,023	4,393	81.6	49.1
4. Bodinayakkanur ...	1,056	2,333	1,003	2,005	95.0	86.0
5. Calicut ...	3,337	14,723	2,624	10,356	78.6	70.3
6. Cannanore ...	740	3,155	552	1,012	74.6	32.1
7. Chidambaram ...	814	2,420	677	1,016	83.2	42.0
8. Chingleput ...	539	2,661	501	1,676	92.9	63.0
9. Chittoor ...	615	1,613	482	1,104	78.4	68.4
10. Cocanada ...	1,741	7,104	1,471	3,852	84.5	54.2
11. Cochin ...	972	1,832	740	1,096	76.1	59.8
12. Coimbatore ...	4,722	82,804	3,518	29,321	74.5	35.4
13. Conjeeveram ...	3,633	47,985	2,725	12,550	75.0	26.2
14. Coonoor ...	697	6,293	557	3,181	79.9	50.5
15. Cuddalore ...	2,082	6,498	1,707	3,926	82.0	60.4
16. Cuddapah ...	793	2,432	674	1,546	85.0	63.6
17. Dindigul ...	1,991	6,213	1,544	2,924	77.5	47.1
18. Ellore ...	2,224	3,974	1,797	2,047	80.8	51.5
19. Erode ...	1,748	11,684	1,060	3,338	60.6	28.6
20. Gudiyattam ...	804	2,166	677	1,352	84.2	62.4
21. Gunthar ...	2,477	4,130	1,637	484	66.1	11.7
22. Hindupur ...	640	1,939	521	819	81.4	42.2
23. Hospet ...	1,391	1,666	1,039	560	78.3	33.6
24. Karaikudi ...	885	2,070	671	988	75.8	47.7
25. Kodaikanal ...	375	1,501	353	1,346	95.5	89.7
26. Kumbakonam ...	2,023	7,841	1,585	3,119	78.3	39.8
27. Kurnool ...	1,250	7,074	870	4,002	69.6	56.6
28. Madura ...	8,998	70,565	8,864	42,057	98.5	59.6
29. Mangalore ...	2,078	12,258	1,604	4,259	77.2	34.8
30. Mannargudi ...	747	1,327	589	584	78.9	40.2
31. Masulipatam ...	1,653	3,403	1,255	1,329	75.9	39.05
32. Mayavaram ...	929	4,287	697	1,728	75.2	40.3
33. Negapatam ...	1,770	13,204	1,188	1,722	67.1	13.04
34. Nellore ...	1,639	3,583	1,256	1,095	76.6	30.6
35. Ongole ...	518	1,430	428	1,017	82.6	71.1
36. Ootacamund ...	1,055	1,448	808	889	76.6	61.4
37. Palghat ...	1,711	4,460	1,160	1,935	67.8	43.4
38. Periyakulam ...	971	1,600	728	646	75.0	40.4
39. Pollachi ...	610	3,515	401	1,355	65.7	38.6
40. Proddatur ...	879	4,670	642	2,649	73.04	56.7
41. Rajahmundry ...	2,023	7,727	1,519	1,411	75.1	18.3
42. Saidapet ...	1,183	6,896	726	1,420	61.4	20.6
43. Salem ...	3,463	7,967	2,872	3,789	77.2	47.8
44. Srirangam ...	774	1,837	672	1,216	86.8	66.2
45. Srivilliputtur ...	1,171	3,889	929	1,480	79.3	38.1
46. Tanjore ...	3,044	5,232	2,310	2,538	75.9	48.5
47. Tellicherry ...	781	2,017	633	1,260	81.05	62.5
48. Tenali ...	1,361	3,995	618	900	45.4	22.5
49. Tirunelveli ...	2,096	5,921	1,471	752	70.2	12.7
50. Tiruppur ...	1,546	5,664	1,132	2,372	73.2	41.9
51. Trichinopoly ...	6,082	16,597	5,519	12,890	91.5	77.7
52. Tuticorin ...	2,645	5,868	2,104	3,962	79.5	67.6
53. Vaniyambadi ...	977	1,455	742	871	75.9	59.8
54. Vellore ...	2,532	16,333	1,966	8,395	77.6	49.9
55. Virudhunagar ...	1,435	2,532	1,404	1,529	97.8	60.4
56. Visagapatam ...	1,972	6,699	1,770	2,863	89.8	42.7
57. Vizianagram ...	1,733	5,899	1,247	1,813	72.0	30.7

Number. (1)	Districts. (2)	Populations of range according to the census of 1931. (3)	Average number of vaccinators employed throughout the year. (4)	Total number of persons vaccinated.			Average number of persons vaccinated. (8)	Primary vaccination.					
				Males. (5)	Females. (6)	Total. (7)		Total number of operations. (9)	Successful.			Unknown. (13)	
									Under 1 year. (10)	1 and under 6 years. (11)	Total of all ages. (12)		
1	Agency districts —												
2	Godavari	240,576	14 + 4	9,229	7,666	16,895	939	8,020	3,258	3,459	6,944	614	
	Vizagapatam	194,168	8 + 2	8,496	7,893	16,389	1,639	12,020	1,067	6,815	10,413	986	
	Total of Agency districts ...	434,744	22 + 6	17,725	15,559	33,284	1,189	20,040	4,325	10,274	17,557	1,600	
3	Anantapur	1,008,481	18 + 12	60,415	41,028	101,443	3,381	33,393	15,554	12,903	28,863	8,643	
4	Arcot, North	2,104,926	28 + 11	109,971	92,132	202,103	5,182	78,720	43,352	24,375	68,677	8,520	
5	Arcot, South	2,350,239	24 + 13	102,632	85,163	187,795	5,076	75,967	26,985	35,762	64,854	9,460	
6	Bellary	864,893	16 + 14	49,110	38,131	87,241	2,908	33,272	16,194	12,729	29,229	3,622	
7	Chingleput	1,498,863	19 + 13	99,290	88,175	187,465	5,858	43,659	18,103	17,261	36,428	6,243	
8	Chittoor	1,405,947	20 + 10	74,191	59,730	133,921	4,464	45,421	20,977	18,198	39,521	5,445	
9	Coimbatore	2,245,621	30 + 14	107,791	98,069	206,860	4,701	71,843	31,367	28,954	61,439	8,706	
10	Cuddapah	906,671	18 + 9	74,133	40,839	114,972	4,258	31,669	13,163	12,250	26,026	4,530	
11	Godavari, East	1,533,237	25 + 9	55,235	48,239	103,474	3,043	51,588	16,143	24,208	42,932	6,948	
12	Godavari, West	1,148,808	13 + 7	35,780	30,261	66,041	3,302	31,188	10,935	15,260	26,857	3,883	
13	Guntur	1,884,973	33 + 14	79,892	58,179	138,071	2,938	60,028	25,443	23,248	49,752	8,063	
14	Kistna	1,136,853	21 + 10	64,127	55,572	119,699	3,861	37,458	16,175	14,093	31,297	4,840	
15	Kurnool	967,039	22 + 10	84,692	49,133	133,825	4,182	32,173	13,099	12,386	25,951	4,217	
16	Madura	1,894,650	30 + 11	93,140	88,291	181,431	4,425	65,134	41,598	13,478	56,233	7,714	
17	Malabar	3,298,204	37 + 17	208,612	214,195	422,814	7,830	99,573	48,427	29,282	84,101	13,628	
18	Nellore	1,440,327	32 + 15	74,714	56,027	130,741	2,782	50,400	18,711	21,077	41,001	5,546	
19	Nilgiris, The	123,099	7 + 3	14,282	10,416	24,698	2,470	4,583	2,890	1,679	4,103	455	
20	Ramnad	1,736,605	27 + 9	75,506	61,429	136,935	3,804	60,622	18,617	28,087	48,890	9,822	
21	Salem	2,331,793	34 + 12	101,214	89,655	190,869	4,149	83,624	34,112	35,889	71,388	9,148	
22	South Kanara	1,305,435	20 + 8	47,389	41,421	88,810	3,172	43,678	16,752	19,669	38,150	4,558	
23	Tanjore	2,133,165	28 + 16	84,947	70,999	155,946	3,544	67,954	21,938	29,152	55,386	8,462	
24	Tinnevely	1,877,444	26 + 10	90,795	77,090	167,885	4,663	65,009	34,598	17,943	54,228	8,730	
25	Trichinopoly	1,725,889	19 + 10	78,061	64,519	142,580	4,917	61,153	30,088	21,718	53,395	6,740	
26	Vizagapatam	3,265,882	42 + 20	135,166	110,327	245,493	3,558	105,866	38,774	46,514	90,089	11,751	
	Total of districts ...	40,623,938	618 + 283*	2,018,817	1,685,579	3,704,396	4,111	1,354,028	577,820	526,283	1,148,145	167,674	

* Health Inspectors and Sanitary Inspectors (Panchayats) are also doing vaccination work.

Statement No. I showing the Particulars of Vaccination in the Province of Madras for the official year 1939-40—cont.

Number.	Districts.	Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total.	Number of all successful primary vaccinations and revaccinations.	Average cost of each successful case.
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.				
		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1	Agency districts—									
2	Gōdāvari	9,034	1,324	2,021	83.8	18.9	34.3	Rs. 14,029 2 0	8,268	Rs. 1 11 2
	Vizagapatam	4,391	914	1,011	94.4	27.0	58.3	8,169 11 9	11,827	0 11 6
	Total of Agency districts ...	13,425	2,238	3,032	84.1	21.5	45.1	22,198 13 9	19,595	1 2 2
3	Anantapur	68,889	9,862	21,596	97.0	20.8	38.4	19,307 2 5	38,725	0 8 0
4	Arcot, North	125,268	20,770	32,680	97.8	22.4	42.5	31,776 14 4	89,447	0 5 8
5	Arcot, South	112,805	17,571	31,364	97.5	21.6	35.1	25,724 9 6	82,425	0 5 0
6	Bellary	54,528	7,351	17,821	98.6	20.0	42.3	16,881 2 4	36,580	0 7 5
7	Chingleput	144,731	21,821	49,826	97.4	23.0	38.9	19,552 15 10	58,247	0 5 4
8	Chittoor	88,940	17,203	22,097	98.9	25.7	40.3	19,512 13 8	56,724	0 5 6
9	Coimbatore	135,337	26,742	41,754	97.3	28.6	39.3	29,431 12 4	88,181	0 5 4
10	Ouddapah	84,260	7,187	28,866	95.9	12.9	36.6	17,917 14 8	33,213	0 8 8
11	Gōdāvari, East	54,253	7,056	15,896	96.2	18.4	32.6	22,864 4 3	49,988	0 7 4
12	Gōdāvari, West	35,084	6,297	10,922	98.3	28.1	28.8	17,094 13 0	33,154	0 8 3
13	Guntur	79,423	6,811	25,826	95.7	12.7	30.0	29,067 6 6	58,563	0 8 3
14	Kistna	83,093	14,267	29,034	95.9	26.4	40.1	24,647 0 3	45,564	0 8 8
15	Kurnool	103,270	7,859	31,469	92.8	10.9	34.9	21,122 7 3	33,810	0 10 0
16	Madura	117,804	28,668	30,668	97.9	32.9	44.8	27,248 2 3	84,901	0 5 2
17	Malabar	325,391	57,339	86,480	97.8	24.0	42.8	40,234 0 10	141,440	0 4 7
18	Nellore	82,477	7,109	22,519	91.4	11.8	33.4	29,140 6 0	48,101	0 9 8
19	Nilgiris, The	20,147	3,396	4,404	99.4	21.6	60.9	7,899 10 6	7,499	1 0 10
20	Ramnad	78,390	9,540	27,106	96.2	18.6	33.6	22,999 14 8	58,430	0 6 4
21	Salem	108,579	11,684	32,143	95.8	15.3	35.6	30,930 0 6	83,072	0 5 11
22	South Kanara	46,224	9,579	11,461	98.5	27.6	36.6	18,008 5 5	47,729	0 6 0
23	Tanjore	92,065	12,155	25,718	94.7	18.3	31.7	32,519 9 3	67,541	0 7 8
24	Tinnevely	106,319	13,711	36,224	96.3	19.5	36.2	23,693 15 0	67,939	0 5 7
25	Trichinopoly	82,209	18,221	20,499	98.1	29.5	41.5	24,645 13 6	71,616	0 5 6
26	Vizagapatam	143,211	22,344	43,981	95.7	22.5	34.4	41,780 7 0	112,433	0 5 11
	Total of districts ...	2,386,122	366,772	702,901	96.6	21.8	37.2	616,200 7 0	1,512,917	0 6 6

Statement No. 1 showing the Particulars of Vaccination in the Province of Madras for the official year 1939-40—cont.

Number. (1)	Municipalities. (2)	Populations of range according to the census of 1931. (3)	Average number of vaccinators employed throughout the year. (4)	Total number of persons vaccinated.			Average number of persons vaccinated. (8)	Primary vaccination.				
				Males. (5)	Females. (6)	Total. (7)		Total number of operations. (9)	Successful.			Unknown. (13)
									Under 1 year. (10)	1 and under 6 years. (11)	Total of all ages. (12)	
1	Adōni	35,635	1 + 2	1,957	2,495	4,452	1,484	1,385	1,073	310	1,384	1
2	Anakāpalle	23,376	1 + 2	1,939	1,059	2,998	999	650	337	253	624	16
3	Anantapur	15,099	1 + 2	1,792	669	2,461	820	557	284	262	557	...
4	Bellary	47,573	2 + 4	4,540	2,686	7,226	1,204	2,032	1,511	489	2,003	27
5	Bezawada	60,427	3 + 6	5,606	5,819	11,425	1,269	2,480	1,374	962	2,470	9
6	Bimlipatam	9,629	1 + 1	1,007	559	1,566	783	357	244	71	353	...
7	Bodisāyakkānūr	27,036	1 + 2	1,658	1,731	3,389	1,180	1,056	932	100	1,034	22
8	Calicut	99,273	5 + 8	9,322	8,734	18,056	1,389	3,337	2,201	885	3,279	52
9	Cannanore	34,236	2 + 2	2,126	1,738	3,864	966	740	430	221	684	47
10	Chicacole	16,588	1 + 2	2,004	470	2,474	825	286	221	57	286	...
11	Chidambaram	25,084	1 + 2	2,006	1,228	3,234	1,078	814	506	263	798	16
12	Chingleput	14,358	1 + 2	2,234	966	3,200	1,067	539	396	124	539	...
13	Chittoor	22,018	1 + 2	1,313	915	2,228	743	915	449	143	597	4
14	Cocanada	65,952	3 + 5	4,945	3,899	8,844	1,106	1,741	1,156	472	1,701	33
15	Cochin	22,818	2 + 2	1,332	1,421	2,803	701	972	588	303	972	...
16	Coimbatore	95,189	8 + 11	52,195	35,330	87,525	4,607	4,722	2,367	1,889	4,557	155
17	Conjeeveram	65,258	3 + 5	29,825	21,743	51,568	6,446	3,633	2,490	1,072	3,592	40
18	Coonoor	14,326	1 + 2	4,111	2,873	6,984	2,328	697	455	187	676	17
19	Cuddalore	59,057	5 + 6	4,559	4,013	8,572	779	2,082	1,258	738	2,073	3
20	Cuddapah	22,802	1 + 2	2,223	1,000	3,223	1,074	793	546	225	773	17
21	Devakottai	20,378	1 + 2	2,340	643	2,983	994	790	246	475	757	24
22	Dhārāpuram	18,218	1 + 1	1,115	501	1,616	808	616	339	259	616	...
23	Dindigul	43,617	2 + 5	4,849	3,352	8,201	1,172	1,991	1,604	360	1,974	14
24	Ellore	57,342	2 + 4	3,331	2,867	6,198	1,033	2,224	1,530	629	2,223	1
25	Erode	33,672	2 + 2	7,057	6,360	13,417	3,354	1,748	645	949	1,647	80
26	Gudivada	20,027	1 + 2	2,050	1,739	3,789	1,263	844	562	229	826	17
27	Gudiyāttam	24,688	1 + 2	1,616	1,354	2,970	990	804	546	189	745	55
28	Guntūr	65,179	4 + 6	3,741	2,800	6,541	654	2,477	1,033	955	2,048	296
29	Hindupur	14,217	1 + 1	1,425	1,135	2,560	1,280	640	525	92	620	20
30	Hospet	21,673	1 + 2	1,546	1,609	3,055	1,018	1,391	1,215	164	1,388	...
31	Karaikudi	21,672	1 + 2	1,551	1,404	2,955	985	885	314	482	858	26
32	Karūr	19,850	1 + 3	1,634	1,137	2,771	693	1,032	413	620	1,052	...
33	Kodaikānal	6,523	1 + 2	967	906	1,873	624	375	316	44	369	3
34	Kumbakōnam	62,317	3 + 6	5,398	4,464	9,862	1,096	2,023	1,629	360	2,007	4
35	Kurnool	35,315	1 + 4	4,991	3,333	8,324	1,665	1,250	704	424	1,134	93
36	Madras	647,230	74	206,284	142,671	347,955	4,702	33,908	24,192	9,261	33,886	145
37	Madura	182,018	12	44,690	34,868	79,548	6,629	8,998	7,361	1,405	8,838	134
38	Mangalore	66,756	3 + 6	7,212	7,120	14,332	1,592	2,078	1,307	729	2,051	5
39	Mannārgudi	22,764	1 + 2	1,148	920	2,068	689	747	462	205	688	54
40	Masulipatam	56,928	3 + 4	2,962	2,082	5,044	721	1,653	827	697	1,574	57
41	Māyavaram	31,887	2 + 2	2,656	2,558	5,214	1,304	929	613	239	883	42
42	Nandyāl	22,608	1 + 1	2,939	2,806	5,745	2,873	910	549	272	822	39
43	Narasaraopet	15,403	1 + 2	1,114	905	2,019	673	436	178	224	426	4
44	Negapatam	48,527	2 + 4	8,342	6,625	14,967	2,495	1,770	722	777	1,621	137
45	Nellore	45,895	2 + 4	3,141	2,080	5,221	870	1,639	984	682	1,607	17
46	Ongole	16,672	1 + 1	1,029	918	1,947	974	518	296	196	505	11
47	Ootacamund	24,616	2 + 3	1,389	1,114	2,503	501	1,055	900	149	1,054	...
48	Palacole	16,806	1 + 2	1,800	500	2,300	767	373	200	127	355	10
49	Palamcottah	27,912	1 + 3	2,559	1,843	4,402	1,101	871	444	398	853	11
50	Palghat	49,064	2 + 3	3,293	2,870	6,163	1,233	1,711	1,269	349	1,664	27
51	Palni	18,899	1 + 2	1,256	1,388	2,644	881	893	790	96	889	4
52	Peddāpuram	17,331	1 + 0	797	528	1,325	1,325	935	213	654	900	35
53	Periyakulam	23,004	1 + 2	1,443	1,123	2,566	855	971	797	138	970	1

Statement No. I showing the Particulars of Vaccination in the Province of Madras for the official year 1939-40—cont.

Number.	Municipalities.	Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total.	Number of all successful primary vaccinations and re-vaccinations.	Average cost of each successful case.
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.				
								RS. A. P.		RS. A. P.
1	Adōni ...	3,067	604	647	100.0	25.0	55.8	1,180 13 1	1,988	0 9 6
2	Anakāpalle ...	2,350	235	1,218	98.4	20.7	36.7	767 13 10	859	0 14 4
3	Anantapur ...	1,910	628	258	100.0	38.01	78.5	643 2 0	1,185	0 8 8
4	Bellary ...	5,198	595	158	99.9	11.8	54.6	1,744 15 0	2,598	0 10 9
5	Bezwada ...	8,945	1,892	301	99.9	21.9	72.2	1,449 0 9	4,362	0 5 4
6	Bimlipatam ...	1,209	336	...	98.9	27.8	71.6	377 9 0	689	0 8 9
7	Bodināyakkannūr ...	2,333	788	140	100.0	35.0	67.4	394 2 0	1,822	0 3 6
8	Calicut ...	14,723	4,141	1,878	99.8	32.2	74.7	2,281 8 3	7,420	0 4 11
9	Cannanore ...	3,155	381	594	98.7	14.9	31.1	948 8 0	1,065	0 14 3
10	Chicacole ...	2,188	651	290	100.0	34.3	56.5	691 10 0	937	0 11 10
11	Chidambaram ...	2,420	601	329	100.0	28.9	55.8	448 3 0	1,399	0 5 2
12	Chingleput ...	2,661	865	189	100.0	35.0	97.8	533 4 0	1,404	0 6 1
13	Chittoor ...	1,613	95	257	97.7	7.0	31.4	859 4 6	692	1 3 10
14	Cocanada ...	7,104	1,003	579	99.6	15.4	41.0	1,675 0 6	2,704	0 9 11
15	Cochin ...	1,832	416	115	100.0	24.2	60.8	1,469 4 5	1,388	1 0 11
16	Coimbatore ...	82,804	10,205	11,211	99.9	14.2	155.1	3,381 11 9	14,762	0 3 8
17	Conjeeveram...	47,935	1,638	18,854	99.9	4.8	80.1	1,983 9 0	5,290	0 6 0
18	Coonoor ...	6,293	1,656	741	99.4	29.8	162.8	645 1 0	2,332	0 4 5
19	Cuddalore ...	6,498	1,443	216	99.7	23.0	59.5	1,216 11 6	3,516	0 5 6
20	Cuddapah ...	2,432	436	402	99.6	21.5	53.5	616 3 0	1,209	0 8 2
21	Devakottai ...	2,193	94	1,542	98.8	14.4	41.8	401 0 0	851	0 7 6
22	Dhārāpuram ...	1,000	279	126	100.0	31.9	49.1	436 4 6	895	0 7 10
23	Dindigul ...	6,213	1,436	593	99.8	25.6	78.2	1,138 14 9	3,410	0 5 4
24	Ellore ...	3,974	1,195	356	100.0	33.0	59.6	798 13 0	3,418	0 3 9
25	Erode ...	11,684	2,208	2,647	98.7	24.4	114.5	1,096 3 0	3,855	0 4 7
26	Gudivada ...	2,946	634	133	99.9	22.6	72.9	406 15 6	1,460	0 4 6
27	Gudiyāttam ...	2,166	149	123	99.5	7.3	36.2	445 10 0	894	0 8 0
28	Guntūr ...	4,130	169	2,003	93.9	7.9	34.01	1,545 14 0	2,217	0 11 2
29	Hindupur ...	1,939	453	133	100.0	25.1	75.5	643 4 0	1,073	0 9 7
30	Hospet ...	1,686	91	1,074	99.8	15.4	68.2	602 5 6	1,479	0 6 6
31	Karaikudi ...	2,070	541	558	99.9	35.8	64.6	577 2 6	1,399	0 6 7
32	Karur ...	1,719	1,383	115	100.0	86.2	122.7	699 14 6	2,435	0 4 7
33	Kodaikānal ...	1,501	570	133	99.1	41.7	144.0	264 10 0	939	0 4 6
34	Kumbakonam ...	7,841	4	1,224	99.4	0.06	32.3	1,821 6 0	2,011	0 14 6
35	Kurnool ...	7,074	2,290	603	98.0	35.4	97.0	578 0 0	3,424	0 2 8
36	Madras ...	314,048	31,687	115,091	99.8	16.0	101.0	47,961 15 5	65,373	0 11 9
37	Madura ...	70,565	13,948	7,991	99.7	22.3	125.2	8,295 4 7	22,786	0 5 10
38	Mangalore ...	12,258	2,449	356	98.9	37.8	67.4	2,213 0 0	4,506	0 7 10
39	Mannārgudi ...	1,327	78	677	99.3	12.0	33.7	544 4 9	766	0 11 4
40	Masulipatam...	3,403	633	586	98.6	22.5	38.8	1,567 6 0	2,207	0 11 4
41	Māyavaram ...	4,237	258	2,059	99.6	11.6	35.8	1,028 0 0	1,141	0 14 5
42	Nandyāl ...	4,841	546	853	94.4	13.7	60.5	728 7 11	1,368	0 8 6
43	Narasaraopet ...	1,584	287	300	98.6	22.3	46.3	729 14 0	713	1 0 5
44	Negapatam ...	13,204	1,539	2,206	99.3	14.0	65.1	1,078 9 0	3,180	0 5 5
45	Nellore ...	3,583	521	383	99.1	16.3	46.4	1,352 5 0	2,128	0 10 2
46	Ongole ...	1,430	515	141	99.6	40.0	61.2	533 8 0	1,020	0 8 4
47	Ootacamund ...	1,448	389	127	99.9	29.4	58.6	1,125 12 10	1,443	0 12 6
48	Palacole ...	1,927	661	707	97.8	54.2	60.1	502 0 0	1,016	0 7 11
49	Palamcottah ...	3,536	676	129	99.2	19.8	54.8	717 7 6	1,529	0 7 6
50	Palghat ...	4,480	1,201	310	98.8	28.9	58.4	1,341 12 0	2,865	0 7 6
51	Palni ...	1,751	613	64	100.0	36.3	79.5	635 10 5	1,502	0 6 9
52	Peddāpāram ...	390	76	123	100.0	28.5	56.3	392 0 0	976	0 6 5
53	Periyakulam ...	1,600	285	245	100.0	21.0	54.6	475 6 0	1,255	0 6 1

Statement No. I showing the Particulars of Vaccination in the Province of Madras for the official year 1939-40—cont.

Number.	Municipalities.	Populations of municipalities according to the census of 1931	Average number of vaccinators employed throughout the year.	Total number of persons vaccinated.			Average number of persons vaccinated.	Primary vaccination.				
				Males.	Females.	Total.		Total number of operations.	Successful.			
									Under 1 year.	1 and under 6 years.	Total of all ages.	Unknown.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
54	Pollachi	22,112	1 + 3	2,543	1,582	4,125	1,031	610	373	208	594	10
55	Proddatur	20,124	1 + 1	3,623	1,924	5,547	2,774	879	609	200	810	56
56	Rajahmundry	63,526	3 + 5	4,469	5,280	9,749	1,219	2,023	1,044	896	1,998	18
57	Saidapet	33,037	3 + 3	5,153	2,924	8,077	1,346	1,183	722	378	1,113	52
58	Salem	102,179	3 + 9	5,370	6,060	11,430	953	3,463	2,550	857	3,439	3
59	Sivakasi	15,212	1 + 1	982	979	1,961	981	816	511	299	810	...
60	Srirangam	24,663	1 + 2	1,366	1,245	2,611	870	774	563	201	774	...
61	Srivilliputtur	32,885	2 + 2	2,632	2,424	5,056	1,264	1,171	896	270	1,168	...
62	Tadpatri	12,620	1 + 1	2,130	913	3,043	1,522	828	427	351	810	14
63	Tanjore	66,889	3 + 5	4,032	4,242	8,274	1,034	3,044	1,927	1,022	3,038	4
64	Tellicherry	30,349	2 + 2	1,414	1,384	2,798	700	781	463	247	768	12
65	Tenali	34,580	3 + 3	2,686	2,653	5,339	890	1,361	685	531	1,258	88
66	Tirunelveli	57,078	3 + 6	4,433	3,572	8,005	1,144	2,096	1,170	672	1,881	162
67	Trichinopoly	142,843	6 + 11	13,968	8,632	22,600	1,329	6,032	3,623	1,897	5,910	91
68	Tirupati	19,138	1 + 2	1,883	1,703	3,591	1,197	466	426	37	466	...
69	Tiruppattur	18,299	1 + 2	5,189	2,576	7,765	2,588	1,089	419	489	1,055	...
70	Tiruppur	18,069	1 + 2	3,970	8,233	7,203	2,401	1,546	727	459	1,261	280
71	Tiruvarur	20,371	2 + 2	2,596	2,419	5,015	1,254	922	268	520	919	2
72	Tiruvannamalai	27,769	1 + 2	5,396	4,141	9,537	3,179	1,112	322	640	1,049	46
73	Tuticorin	60,397	3 + 6	4,904	3,595	8,499	914	2,645	1,475	908	2,412	190
74	Udamalpet	12,184	1 + 1	1,914	1,032	2,946	1,473	448	249	195	448	...
75	Udipi	17,250	1 + 1	1,093	675	1,768	884	700	494	173	678	22
76	Vaniyambadi	22,940	1 + 2	1,526	906	2,432	811	977	607	323	977	...
77	Vellore	57,265	3 + 4	11,886	7,474	19,360	2,766	2,532	1,669	711	2,413	76
78	Villupuram	20,127	1 + 2	2,355	1,629	3,984	1,328	927	355	367	845	67
79	Virudunagar	33,081	1 + 2	1,932	2,033	3,965	1,322	1,435	1,146	277	1,424	9
80	Vizagapatam	57,303	3 + 5	3,996	4,652	8,648	1,081	1,972	1,079	780	1,909	25
81	Vizianagaram	44,696	3 + 4	4,232	3,390	7,622	1,089	1,733	1,127	432	1,602	125
82	Walajapet	11,102	1 + 1	671	664	1,335	668	324	256	62	324	...
	Total of Municipalities ...	3,715,160	235 + 245*	581,753	429,702	1,011,455	2,107	152,882	98,735	46,151	148,755	3,197
1	Bangalore	...	2	618	587	1,205	603	308	203	96	299	...
2	Secunderabad	...	6	25,414	27,085	52,479	8,747	6,288	4,155	1,214	5,402	584
	Total of Cantonments ...	...	8	26,082	27,652	53,684	6,711	6,596	4,358	1,310	5,701	584
	Poonamallee Health Unit ...	43,599	4†	6,096	5,377	11,473	2,868	1,723	989	478	1,529	153
	Canvery-Mettur Project ...	...	1	144	140	284	284	271	32	35	70	199
	Total of cases vaccinated by Medical Subordinates and Port Health Officers.	...	...	14,261	252	14,513	...	102	2	12	80	10
	Total of cases performed under Railway administration ...	...	...	3,643	1,790	5,433	...	1,292	564	597	1,223	30
	Dispensaries	...	...	...	...	...	...	...	...	...	...	...
	Grand total ...	44,422,597	862 + 532	2,650,746	2,150,492	4,801,238	3,444	1,516,894	682,500	574,866	1,303,503	171,847

* Sanitary Inspectors of municipalities are also doing vaccination work.
† Health Inspectors.

Statement No. I showing the Particulars of Vaccination in the Province of Madras for the official year 1939-40—cont.

Number.	Municipalities.	Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Total cost.	Number of all successful primary vaccinations and re-vaccinations.	Average cost of each successful case.
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.				
		(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
								RS. A. P.		RS. A. P.
54	Pollachi	3,515	608	182	99.0	18.2	54.4	545 15 7	1,202	0 7 3
55	Proddatur	4,670	267	1,194	98.4	7.7	53.5	747 1 1	1,077	0 11 1
56	Rajahmundry	7,727	708	274	99.7	9.5	42.6	1,330 1 10	2,706	0 7 10
57	Saidapet	6,898	870	1,604	98.4	16.4	60.0	948 2 6	1,983	0 7 8
58	Salem	7,967	1,317	491	99.4	17.6	48.5	1,912 13 11	4,756	0 6 5
59	Sivakasi	1,148	266	19	99.8	23.6	70.7	320 5 8	1,076	0 4 9
60	Srirangam	1,837	880	9	100.0	47.0	66.3	580 18 3	1,634	0 5 6
61	Srivillipattur	3,839	725	9	99.7	18.7	58.5	934 7 6	1,893	0 7 11
62	Tadpatri	2,217	131	305	99.5	6.8	74.6	351 13 6	941	0 6 0
63	Tanjore	5,232	619	590	99.9	13.3	54.7	1,943 3 0	3,657	0 8 6
64	Tellicherry	2,017	281	238	99.9	18.8	34.6	1,245 0 0	1,049	1 3 0
65	Tenali	3,995	803	610	98.8	23.7	59.6	1,246 14 0	2,061	0 9 8
66	Tirunelveli	5,921	534	783	98.3	10.4	42.3	1,505 8 6	2,415	0 10 0
67	Triobinopoly	16,597	5,674	2,516	99.5	40.3	81.1	2,953 15 11	11,584	0 4 1
68	Tirupati	3,125	813	295	100.0	28.7	66.8	535 15 6	1,279	0 6 8
69	Tirupattur	6,676	1,573	...	96.9	23.6	143.6	745 5 3	2,628	0 4 6
70	Tiruppur	5,664	468	2,453	99.6	14.6	95.7	581 10 0	1,729	0 5 5
71	Tiruvārur	4,093	1,377	530	99.9	38.6	112.7	923 10 5	2,296	0 6 5
72	Tiruvannāmalai	8,428	1,122	2,051	98.4	17.6	78.2	744 3 7	2,171	0 5 6
73	Tuticorin	5,863	1,194	1,100	98.2	25.1	59.7	1,820 6 0	3,606	0 7 2
74	Udamalpet	2,498	565	350	100.0	26.3	83.1	508 10 0	1,013	0 8 0
75	Udipi	1,068	244	9	100.0	23.0	53.5	448 8 0	922	0 7 9
76	Vāniyambādi	1,455	521	299	100.0	45.1	65.3	618 14 7	1,498	0 6 7
77	Vellore	16,833	2,750	3,558	98.2	20.7	90.2	1,344 5 8	5,163	0 4 2
78	Villupuram	3,057	390	945	98.3	18.5	61.4	725 0 0	1,235	0 9 5
79	Virudunagar	2,532	821	247	99.9	35.9	67.9	468 0 0	2,245	0 3 4
80	Vizagapatam	6,689	497	331	98.0	7.3	42.0	2,390 4 1	2,406	0 15 11
81	Vizianagram	5,899	479	1,416	99.6	10.7	46.6	1,592 11 9	2,081	0 12 3
82	Walajapet	1,011	286	25	100.0	29.0	54.9	283 7 0	610	0 7 5
	Total of Municipalities ...	858,957	123,230	199,541	99.4	18.7	73.2	1,36,041 2 4	271,985	0 8 0
1	Bangalore	897	757	...	97.1	84.4	...	708 0 0	1,058	0 10 9
2	Secunderabad	46,497	14,864	7,234	94.7	37.9	...	5,476 4 5	20,266	0 4 4
	Total of Cantonments ...	47,394	15,621	7,234	94.8	38.9	...	6,184 4 5	21,322	0 4 8
	Poonamallee Health Unit ...	9,837	1,525	2,493	97.4	20.8	70.04	1,443 3 0	3,054	0 7 7
	Cauvery-Mettur Project ...	13	3	9	97.2	75.0	...	...	...	...
	Total of cases vaccinated by Medical Subordinates and Port Health Officers.	14,411	6,090	1,171	86.9	46.0	...	...	...	...
	Total of cases performed under Railway administration ...	4,141	616	583	96.9	17.3	...	...	...	...
	Dispensaries	...	...	...	...	...	...	...	...	...
	Grand total ...	3,320,875	513,857	913,932	96.9	21.3	40.9	7,59,869 0 9	1,809,351	*0 6 9

* This excludes vaccination work done in Cauvery-Mettur Project, by medical subordinates, under railways and in dispensaries.

† The average cost of each successful case was calculated on the number of successful vaccinations performed by the special staff only, viz., Local Fund, Municipal and Poonamallee Health Unit and exclusive of approximately Rs. 650 being the total amount of recoveries made for wastage of lymph.

Summary of Statement No. I.

	Total number of persons vaccinated.		Total number of operations performed.		Percentage of successful cases in which the results were known.		Average number of persons vaccinated by each vaccinator.		Number of children successfully vaccinated.		Ratio of successful vaccinations per 1,000 of population.	Total cost of department.			Number of all successful vaccinations performed.	Average cost of each successful case.
	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	Vaccinators employed.	Persons vaccinated by each vaccinator.	Under one year.	One year and under six years.		Rs.	A.	P.		
<i>By special staff.</i>																
Districts excluding municipalities ...	1,318,431	2,385,965	1,354,038	2,386,122	96.6	21.8	618 + 283	4,111	577,620	526,283	37.2	6,16,200	7	0	1,512,917	0 6 6
Municipalities ...	152,499	838,956	152,882	858,957	99.4	18.7	235 + 245	2,107	98,785	46,151	73.2	1,38,041	2	4	271,986	0 8 0
Poonamallee Health Unit ...	1,696	9,778	1,733	9,837	97.4	20.8	0 + 4	2,868	989	478	70.04	1,443	3	0	3,054	0 7 7
Canvey-Mettur Project ...	271	13	271	13	97.2	75.0	1 + 0	284	32	35	...	...	...	...	73	...
Total ...	1,472,886	3,254,712	1,508,904	3,254,929	96.9	20.9	854 + 532	3,411	677,576	572,947	40.8	7,53,684	12	4	1,788,029	0 6 9
<i>By Military Cantonments ...</i>	<i>6,290</i>	<i>47,394</i>	<i>6,596</i>	<i>47,394</i>	<i>94.8</i>	<i>38.9</i>	<i>8 + 0</i>	<i>6,710</i>	<i>4,358</i>	<i>1,310</i>	<i>...</i>	<i>6,184</i>	<i>4</i>	<i>5</i>	<i>21,322</i>	<i>0 4 8</i>
<i>By Medical Subordinates and Port Health Officers.</i>	<i>102</i>	<i>14,411</i>	<i>102</i>	<i>14,411</i>	<i>86.9</i>	<i>46.0</i>	<i>...</i>	<i>...</i>	<i>2</i>	<i>12</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>
<i>By Railway Dispensaries ...</i>	<i>1,292</i>	<i>4,141</i>	<i>1,292</i>	<i>4,141</i>	<i>96.9</i>	<i>17.3</i>	<i>...</i>	<i>...</i>	<i>564</i>	<i>597</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>
Total ...	1,480,580	3,320,658	1,516,894	3,320,875	96.9	21.3	862 + 532	3,444	682,500	574,866	40.9	7,59,869	0	9	1,809,351	0 6 9

Statement No. II showing the number of persons primarily vaccinated and the number of those persons who were successfully vaccinated in the Province of Madras in each of the undermentioned years.

Persons primarily vaccinated in the Madras Presidency.											
(1)	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
	1930-1931.		1931-1932.		1932-1933.		1933-1934.		1934-1935.		
Government vaccinators ...	28,809	21,481	26,459	24,574	31,160	28,118	30,822	26,415	29,681	24,102	
Local Fund do. ...	1,257,794	1,162,678	1,343,229	1,225,234	1,233,161	1,127,363	1,113,453	961,421	1,203,881	1,024,766	
Cantonment do. ...	5,346	4,950	6,172	5,465	5,473	5,114	6,783	6,286	4,535	3,971	
Municipal do. ...	122,184	119,872	129,593	127,430	133,177	131,112	144,773	141,093	139,099	134,906	
Dispensaries ...	983	960	999	988	745	740	...	...	...	...	
Medical Subordinates ...	262	247	244	186	193	109	109	107	1,869	1,409	
Railways ...	1,345	1,303	1,328	1,274	2,808	2,653	1,889	1,769	2,111	1,919	
Total ...	1,411,723	1,311,491	1,508,024	1,365,151	1,406,717	1,295,909	1,297,829	1,137,091	1,381,176	1,191,073	

Statement No. II showing the number of persons primarily vaccinated and the number of those persons who were successfully vaccinated in the Province of Madras in each of the undermentioned years—cont.

Persons primarily vaccinated in the Madras Presidency—cont.																														
	1935-1936.			1936-1937.			1937-1938.			1938-1939.			1939-1940.																	
	Total number.	Number success-fully vaccinated.	(12)	Total number.	Number success-fully vaccinated.	(13)	Total number.	Number success-fully vaccinated.	(14)	Total number.	Number success-fully vaccinated.	(15)	Total number.	Number success-fully vaccinated.	(16)	Total number.	Number success-fully vaccinated.	(17)	Total number.	Number success-fully vaccinated.	(18)	Total number.	Number success-fully vaccinated.	(19)	Total number.	Number success-fully vaccinated.	(20)	Total number.	Number success-fully vaccinated.	(21)
Government vaccinators ...	26,500	23,432	...	8,844	7,894	...	9,471	7,694	...	8,886	7,562	...	16,656	14,452	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...
Local Fund do. ...	1,250,886	1,066,020	...	1,252,418	1,050,339	...	1,304,411	1,115,613	...	1,311,203	1,133,030	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...	1,337,372	1,131,693	...
Cantonment do. ...	5,613	4,876	...	6,002	5,312	...	6,002	5,231	...	5,112	4,553	...	6,598	5,701	...	6,598	5,701	...	6,598	5,701	...	6,598	5,701	...	6,598	5,701	...	6,598	5,701	...
Municipal do. ...	133,379	129,781	...	132,162	123,020	...	142,979	139,407	...	152,232	147,905	...	152,882	148,755	...	152,882	148,755	...	152,882	148,755	...	152,882	148,755	...	152,882	148,755	...	152,882	148,755	...
Dispensaries ...	...	...	...	...	...	...	...	...	...	111	99	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medical Subordinates ...	374	342	...	389	197	...	80	78	...	59	58	...	102	80	...	102	80	...	102	80	...	102	80	...	102	80	...	102	80	...
Railways ...	1,961	1,864	...	1,522	1,457	...	1,674	1,590	...	1,822	1,654	...	1,292	1,223	...	1,292	1,223	...	1,292	1,223	...	1,292	1,223	...	1,292	1,223	...	1,292	1,223	...
Poonamallee Health Unit ...	...	...	...	1,917	1,759	...	1,640	1,449	...	2,012	1,805	...	1,723	1,529	...	1,723	1,529	...	1,723	1,529	...	1,723	1,529	...	1,723	1,529	...	1,723	1,529	...
Canvey-Mettur Project ...	...	...	...	...	...	...	237	141	...	410	226	...	271	70	...	271	70	...	271	70	...	271	70	...	271	70	...	271	70	...
Total ...	1,418,663	1,226,315	...	1,403,254	1,195,078	...	1,466,503	1,271,203	...	1,481,847	1,296,892	...	1,516,804	1,303,503	...	1,516,804	1,303,503	...	1,516,804	1,303,503	...	1,516,804	1,303,503	...	1,516,804	1,303,503	...	1,516,804	1,303,503	...

Statement No. III showing the Number of Vaccinations performed in Municipal Towns on Children under One Year of Age (G.O. Mis. No. 1534 L., dated 6th December 1909).

Municipalities.	Number of births available for vaccination during the year 1939-40.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1940.	Percentage of infantile vaccination to total births.	
				1938-39.	1939-40.
Adoni ...	1,500	250	818	64.0	68.5
Anakāpalle ...	1,016	184	347	40.6	41.1
Anantapur ...	706	64	205	62.0	59.0
Bellary ...	2,153	361	1,104	53.28	53.9
Bezwada ...	2,665	847	539	38.0	39.3
Bimlipatam ...	392	48	235	61.1	60.0
Bodinayakkanur ...	1,418	201	1,056	70.6	71.2
Calicut ...	4,335	440	2,417	48.2	43.1
Cannanore ...	893	78	430	48.5	48.2
Chicacole ...	1,072	144	168	56.0	33.0
Chidambaram ...	1,088	149	509	42.1	44.8
Chingleput ...	889	132	341	56.59	44.5
Chittoor ...	1,005	109	309	51.6	38.9
Cocanada ...	2,116	402	766	37.0	54.6
Cochin ...	847	116	579	68.7	68.7
Coimbatore ...	4,158	592	2,042	54.9	58.9
Conjeeveram ...	4,342	343	2,484	65.0	75.7
Coonoor ...	660	85	366	61.51	59.6
Cuddalore ...	2,295	338	1,057	45.48	50.3
Cuddapah ...	1,119	110	486	49.1	48.8
Devakottai ...	795	69	238	40.0	29.9
Dhārāpuram ...	556	53	298	70.06	69.2
Dindigul ...	2,352	330	1,563	72.41	62.6
Ellore ...	2,447	482	1,361	53.0	65.3
Erode ...	1,404	164	575	42.3	45.9
Gudivada ...	985	157	562	61.2	57.0
Gudiyāttam ...	1,126	144	529	82.1	72.5
Guntūr ...	4,069	720	1,081	23.6	31.4
Hindupur ...	678	102	412	80.1	90.0
Hospet ...	984	133	722	77.77	80.7
Karaikudi ...	1,028	143	467	22.4	32.5
Karūr ...	821	160	413	30.7	50.3
Kodaikanal ...	391	46	273	98.2	94.3
Kumbakonam ...	2,308	361	1,098	37.8	58.01
Kurnool ...	580	174	448	85.3	80.0
Madras ...	31,138	4,377	15,416	72.9	77.7
Madura ...	10,195	1,338	6,303	64.8	65.4
Mangalore ...	2,761	183	1,231	73.21	53.2
Mannārgudi ...	1,003	111	397	36.8	43.1
Masulipatam ...	2,629	479	666	30.98	31.9
Māyavaram ...	1,160	144	575	54.4	55.1
Nandyal ...	1,052	149	457	55.04	52.2
Narasaraopet ...	648	153	180	55.0	27.4
Negapatam ...	1,551	288	719	56.7	86.1
Nellore ...	3,168	296	930	41.8	31.1
Ongole ...	808	116	304	40.0	41.1
Ootacamund ...	1,188	118	753	63.3	72.5
Palacole ...	583	156	200	46.0	46.8
Palamcottah ...	1,340	334	493	63.8	63.1
Palghat ...	2,083	342	1,154	58.48	57.3

Statement No. III showing the Number of Vaccinations performed in Municipal Towns on Children under One Year of Age (G.O. Mis. No. 1534 L., dated 6th December 1909)—cont.

Municipalities.	Number of births available for vaccination during the year 1939-40.	Number of deaths amongst children under one year during the year.	Number of successful vaccinations on children under one year during the year ending March 1940.	Percentage of infantile vaccination to total births.	
				1938-39.	1939-40.
Palni ...	833	120	793	65.9	91.6
Peddāporam ...	610	72	325	49.9	52.6
Periyakulam ...	1,089	175	687	71.79	73.2
Pollachi ...	878	208	373	46.1	40.7
Proddatur ...	919	131	508	50.5	57.4
Rajahmundry ...	2,319	491	909	47.96	45.1
Saidapet ...	1,313	166	722	63.1	61.0
Salem ...	3,522	386	2,425	36.5	72.4
Sivakāsi ...	414	69	249	98.5	98.8
Srirangam ...	950	88	563	87.54	59.3
Srivilliputtūr ...	1,364	201	818	67.0	65.7
Tadpatri ...	556	83	280	53.54	60.7
Tanjore ...	2,997	380	1,446	51.7	52.1
Tellicherry ...	1,019	100	463	47.67	45.4
Tenali ...	1,579	350	539	47.32	36.1
Tirunelveli ...	2,582	649	987	35.1	45.3
Trichinopoly ...	5,577	748	2,924	55.8	57.1
Tirupati ...	631	96	330	69.74	67.5
Tiruppattūr ...	897	77	419	31.3	46.7
Tiruppur ...	1,217	200	727	37.1	53.6
Tiruvārūr ...	814	74	478	53.8	58.5
Tiruvannāmalai ...	1,121	177	322	20.34	28.7
Tuticorin ...	2,794	532	1,327	48.5	47.5
Udamalpet ...	713	102	248	43.5	34.9
Udipi ...	730	60	511	61.5	72.9
Vāniyambādi ...	1,030	130	619	59.0	54.0
Vellore ...	3,195	390	1,487	47.1	46.5
Villupuram ...	690	73	167	51.2	51.3
Virudhanagar ...	1,657	262	1,070	95.5	96.2
Vizagapatam ...	2,907	535	985	43.92	37.1
Vizianagaram ...	2,194	366	1,009	63.5	59.1
Walajapet ...	384	37	216	61.7	56.2

Statement No. IV.—Comparative statement showing Infantile Vaccination in Districts for 1938-39 and 1939-40.

Number.	Districts.	Percentage of infantile vaccination to total births registered.		Increase or decrease.	Number.	Districts.	Percentage of infantile vaccination to total births registered.		Increase or decrease.
		1938-39.	1939-40.				1938-39.	1939-40.	
1. Anantapur ...		38.3	40.0	+ 1.7	13. Kurnool ...		35.4	35.02	- 0.38
2. Arcot, North ...		49.2	50.6	+ 1.4	14. Madura ...		57.9	55.7	- 2.2
3. Arcot, South ...		32.0	36.02	+ 4.02	15. Malabar ...		38.8	43.5	+ 4.7
4. Bellary ...		44.5	46.7	+ 2.2	16. Nellore ...		33.4	37.4	+ 4.0
5. Chingleput ...		35.1	34.01	- 1.09	17. Nilgiris, The ...		56.5	51.9	- 4.6
6. Chittoor ...		40.9	41.0	+ 0.1	18. Ramnad ...		32.8	32.5	- 0.3
7. Coimbatore ...		36.4	37.6	+ 1.2	19. Salem ...		38.9	40.5	+ 1.6
8. Cuddapah ...		41.8	41.6	- 0.2	20. South Kanara...		35.2	35.0	- 0.2
9. Godavari, East.		27.9	32.7	+ 4.8	21. Tanjore ...		31.2	34.2	+ 3.0
10. Godavari, West.		27.1	25.9	- 1.2	22. Tinnevely ...		45.6	45.1	- 0.5
11. Guntur ...		33.3	35.2	+ 1.9	23. Trichinopoly ...		39.8	45.6	+ 5.8
12. Kistna ...		30.8	38.7	+ 7.9	24. Vizagapatam ...		35.5	32.1	- 3.4

FIFTIETH ANNUAL REPORT OF THE SUPERINTENDING ENGINEER (PUBLIC HEALTH) FOR THE YEAR 1939.

1. *Water-supply schemes.*—During the year the water-supply schemes of Arkonam and Manapparai Panchayats came into operation and the number of towns both municipal and panchayat having the benefit of protected water-supply schemes was 45 against 43 in the previous year.

2. Water-supply schemes under execution:—

Number and name of work.	Estimated cost.	Expenditure to end of December 1939.	Agency of execution.	Progress of work.
	RS.	RS.		
1 Adonj water-supply (Hagari scheme).	7,70,000	5,51,049	P.W.D.	All work connected with infiltration and suction wells was completed. 10" diameter pumping main was laid. Pump-house was nearing completion. Construction of quarters for staff was in progress.
2 Arkonam water-supply.	R.E. 1,92,400 } 1,76,500 }	1,67,224	Do.	The work was practically completed during the year and handed over to the panchayat on 2nd November 1939.
3 Batlagundu water-supply.	R.E. 71,000 } 92,400 }	9,007	District Board and P.W.D. control.	The infiltration well, 18" diameter, has been built above water level and yield tests conducted. A revised estimate has since been sanctioned for the whole work.
4 Bodinayakkanur water-supply.	5,82,710	75,766	P.W.D.	Land was acquired for three-fourth of the gravitation main and gravitation main also laid for about 10,000 feet and work of service reservoir also commenced.
5 Calicut water-supply.	R.E. 14,72,810	49,111	Do.	Four infiltration wells and one suction well have been completed. Syphon pipe connexions between two infiltration wells was also carried out.
6 Cuddapah water-supply (Pennar scheme).	R.E. 2,85,000 } 3,83,000 }	64,720	Do.	Suction well, syphon pipe line, watchman's quarters and latrine completed. Collection of main was in progress.
7 Karur water-supply.	2,94,100	2,27,021	Do.	Practically the work has been completed. It has since started functioning from April 1940.
8 Karamadai water-supply.	17,400	2,639	District Board.	Sanction to the revised estimate for the scheme was awaited from President, District Board, Coimbatore and allotment of funds.
9 Manapparai water-supply.	59,000	48,145 (up to 30th September 1939)	Local body and P.W.D. control.	All works were completed and the water-works were opened in June 1939.
10 Mettupalaiyam water-supply.	1,87,220	9,444	P.W.D.	C.I. pipes and specials required for pumping main and connection to service reservoir have been collected.
11 Mathiappalaiyam water-supply.	9,800	..	..	Work deferred due to war conditions.
12 Perur water-supply.	8,200	..	..	The terms of supply of water are under correspondence with the Municipal Council, Coimbatore.

Number and name of work.	Estimated cost.	Expenditure to end of December 1939.	Agency of execution.	Progress of work.
	RS.	RS.		
13 Peddapuram water-supply.	1,07,460	785	P.W.D.	Land acquisition proceedings not yet completed. Scheme to be postponed.
14 Pollachi water-supply.	R.E. 5,16,000 } 5,46,960 }	2,27,050	Do.	Infiltration gallery completed in all respects, connecting well and barrage wall also practically finished. Syphon pipe line completed to a length of 204 r.ft. Quarters for electrical foreman built. Pipes and specials for pumping main are being collected.
15 Sembien water-supply.	1,25,550	98,981	Do.	Infiltration gallery and suction well completed. Quarters for electrician and watchman completed. Work regarding syphon pipe connexion is in progress. R.C. Service reservoir was under erection.
16 Salem-Mettur water-supply.	R.E. 22,97,000 } 33,00,000 }	7,96,464	Do.	Pumping main for 5 miles and 2 furlongs and 379 feet has been laid from Nangavalli filtration works to the site of Booster station except for a few gaps. The installation of filtration works at Nangavalli was practically completed. Tenders for the service reservoir at Hastampatti were accepted and arrangements made to start work.
17 Srirangam water-supply scheme.	R.E. 85,000 } 1,14,000 }	48,057	Do.	Construction of motor and pump house completed and electrical pumping sets fitted. Pipe laying in the main for 2,000 feet was completed.
18 Tiruppur water-supply.	R.E. 1,84,000 } 2,34,070 }	1,61,498	Do.	All work connected with pump house, watchman's quarters, pumping main, distribution system and service reservoir has been completed. Works connected with infiltration gallery and suction well were in progress.
19 Tiruvallur water-supply.	1,32,400	86,776	Do.	Infiltration gallery, pumping main, pump house and suction well completed. The laying of distribution pipes was in progress. The works were since opened in April 1940.
20 Valparai water-supply.	22,000	4,600	..	The estimate was under revision by District Board Engineer, Coimbatore.
21 Voyalpad water-supply.	41,000	2,079 (upto 30th September 1939)	District Board.	Land acquisition completed. Infiltration well in progress.
22 Wallajah water-supply.	96,870	11,024	P.W.D.	Land acquisition. The execution of the scheme was postponed with reference to G.O. No. 3816, P.H., dated 19th October 1939.

3. Improvements to and extension of the existing schemes were in progress or completed in the following cases:—

1 Anantapur water-supply extension.	14,050	2,683	P.W.D.	The works were completed and handed over to the municipality.
2 Bezvada water-supply—Re-arrangement of the distribution system.	2,41,700	1,10,731	Municipality under P.W.D. control.	Laying of pipes in some parts completed. Laying of feeder mains was in progress.
3 Coonoor water-works improvements (Ralliah Dam).	R.E. 1,92,000 } 3,07,000 }	1,79,356	Do.	Scour channel and watchman's quarters completed. Dam surplus and valve tower work nearing completion.
4 Cocanada water-works improvements Part II—(1) construction of R.C. reservoir. (2) installation of mechanical filtration plant.	R.E. 1,96,000 } 2,50,700 }	45,593	Municipality and P.W.D. control.	All concrete work for the R.C. reservoir was completed. Pipe connexions were partly laid.

Number and name of work.	Estimated cost.	Expenditure to end of December 1939.	Agency of execution.	Progress of work
	RS.	RS.		
5 Dindigul water-works improvements Construction of a new well at Odukkam.	R.E. 20,776	16,041	P.W.D.	All works completed except laying of pipes.
6 Electrification of Erode water-works pumping plant.	50,800	49,327	Municipality.	All works completed.
7 Ellore water-works —Construction of a fourth filter bed.	R.E. 40,000 } 44,000 }	35,837	P.W.D.	The work was nearing completion.
8 Gudiyattam water-works improvements.	98,000	62,833	Do.	Laying and jointing of pipes completed. Infiltration and suction wells were also completed as also syphon pipe connexions.
9 Kodaikanal water-works improvements. Storage tank.	23,000	7,264	Do.	The R.C. storage reservoir was completed and has been brought into use.
10 Saidapet water-supply scheme. Extension to Mettupalayam, Kodambakam, Mambalam, Guindy, etc.	60,570	49,262	Do.	All works have been completed excepting the construction of 17 additional fountains sanctioned during the year.

4. Investigations that were in progress or completed during the year—

(1) Arcot water-supply investigation ..	Investigations in progress and completed during the year.
(2) Guntur water-supply investigation ..	
(3) Guntakal water-supply investigation.	
(4) Pithapuram water-supply investigation.	
(5) Kumbakonam water-supply investigation.	Investigations in progress but not completed during the year.
(6) Rajapalaiyam water-supply investigation.	
(7) Gobichettipalaiyam water-supply investigation.	
(8) Nandyal water-supply investigation ..	
(9) Sivakasi water-supply investigation.	
(10) Vizagapatam water-supply investigation.	

5. Preparation of plans and estimates were in progress for the following water-supply schemes :—

(1) Cochin water-supply ..	RS.
(2) Sivaganga water-supply ..	2,30,000
	57,000

6. Plans and estimates were submitted for the following schemes :—

(1) Arantangi water-supply ..	RS.
(2) Calicut water-supply (revised estimate) ..	1,14,000
(3) Batlagundu water-supply ..	14,73,000
(4) Tanjore water-works improvements ..	74,000
	50,000

7. Drainage.—No new schemes were brought into operation during the year and the number of municipal towns possessing drainage system continues to be 4, the same as in the year 1938.

8. Progress in the execution of drainage schemes—

Number and name of work.	Estimated cost.	Expenditure to end of December 1939.	Agency of execution.	Progress of work.
	RS.	RS.		
1 Bezwada drainage.	7,54,800	6,80,365	P.W.D.	The scheme was put into operation in 1938. Certain other works such as hill drains 2, 3 and 4 were in progress. The work in the sewage farm was also nearly completed.
2 Brucepet drainage (Bellary Municipality).	4,30,900	4,02,150	Do.	Works completed.
3 Salem drainage ..	5,45,000	1,89,218	Municipality under P.W.D. control.	All works under IV instalment of the scheme excepting 200 R.ft. of 6" drains and 21 R.ft. of 9" drains in drain No. 167 were completed.
4 Nagapatam drainage.	6,74,500	1,84,290 $\frac{1}{2}$	P.W.D.	All open drains, drain junctions and overflow drains and intercepting sewers completed. Laying of 9", 10" and 14" pumping mains was practically completed. Manholes 1 to 29 and 37 to 54 were completed. The three works in pumping stations were plugged and plastered.
5 Rajahmundry partial drainage.	R.E. 2,51,900 } 3,21,000 }	1,30,259	Municipality.	Construction of intercepting drains is in progress. Hume 8" steel main pipe line completed. Sewage farm work is in progress.
6 Srirangam drainage (main scheme).	3,25,000	50,527	P.W.D.	Open drains Nos. 10, 18, 52, 3, 2 and 11 completed. Manholes 8 to 12 of intercepting sewer No. 2 partially done. Filling of intercepting sewer 2 and 1 to the required extent was also done. C.I. pipes laid for 247 r.ft. The sanction to the revised estimate was under correspondence with the Municipality.
7 Tirupati drainage —III Instalment.	77,998	53,690	Do.	Outfall sewer, forming road, embankment, laying of sub-soil pipes, forming fields, effluent and irrigation channel completed as also 12 subcarriers were completed.
Tirupati drainage—IV instalment.	74,200	18,259	Do.	Construction of open drains in progress.
8 Coimbatore drainage.	16,90,000	96,761	Do.	Construction of some R.C. conduits with manholes, ventilators, etc., has so far been completed. The work was temporarily suspended during the year pending orders of the Government for the execution of the scheme.

9. Drainage investigations completed or in progress during the year—

(1) Saidapet drainage ..	Investigations in progress.
(2) Tiruvannamalai drainage ..	
(3) Sivakasi drainage ..	
(1) Calicut drainage ..	Investigations completed.
(2) Chidambaram drainage ..	
(3) Masulipatam drainage ..	
(4) Rasipuram drainage ..	
(5) Sembiam drainage ..	
(6) Udamalpet drainage ..	

10. The plans and estimates were under revision for the following scheme :—

	RS.
(1) Tuticorin drainage scheme ..	15,93,000

11. Detailed plans and estimates were prepared for the following drainage schemes :—

	RS.	
(1) Srirangam drainage scheme ..	3,55,000	(Revision).
(2) Virudunagar drainage scheme ..	8,15,000	(Revision).

12. Preliminary reports for the following water-supply and drainage schemes were also prepared during the year :—

Number and name of scheme.	Approximate initial cost. RS.	Approximate maintenance cost. RS.
<i>Water-supply schemes.</i>		
1 Sholingur Panchayat—		
Independent scheme	57,500	700
Composite scheme	3,54,000	2,500
2 Mannargudi Municipality—		
(5 gallons)	2,08,000	5,500
(10 gallons)	3,07,000	10,000
(15 gallons)	5,43,000	12,500
3 Nuzvid Panchayat	40,000	2,900
4 Udumalpet	11,50,000	3,300
5 Rasipuram	75,000	3,000
6 Renigunta	14,000	1,100
7 Ponneri (portion)	40,000	1,200
Ponneri (full)	58,000	1,500
8 Tiruchendur—		
Independent	1,50,000	2,500
Composite	5,24,000	11,000
9 Nilakkottai	80,000	1,600
10 Salur (Vizagapatam district)	64,000	3,700
11 Gudivada	3,15,000	10,200
12 Satyamangalam	91,000	3,500
13 Arni	50,000	2,500
14 Ponnani	1,10,000	2,800
15 Tuni	83,000	3,700
16 Mangalore	9,00,000	4,500
17 Samalkota	5,00,000	19,500
18 Dindigul (Palni source)	1,90,000	6,800
19 Villipuram—	40,00,000	13,000
Independent	3,75,000	5,000
Composite	4,55,000	6,300
20 Amalapuram	67,000	2,500
21 Sivacode	35,500	1,500
<i>Drainage schemes.</i>		
1 Anantapur	2,80,000	7,700
2 Bezwada-Poornanandampet area drainage scheme	1,50,000	4,500
3 Aruppukottai	3,10,000	2,500
4 Devakottai—		
(Open drainage)	5,85,000	8,800
(Underground drainage)	7,40,000	8,000

Number and name of scheme.	Approximate initial cost. RS.	Approximate maintenance cost. RS.
<i>Drainage schemes—cont.</i>		
5 Gudiyattam	3,50,000	8,000
6 Mannargudi	6,30,000	9,000
7 Ponnani	1,85,000	4,000
8 Proddatur	1,60,000	5,000
9 Villupuram	3,80,000	8,000

13. The following water-supply and drainage investigations sanctioned by the Government remained to be taken up for want of staff or other reasons :—

- (1) Palni water-supply investigation (since taken up in 1940).
- (2) Tenali water-supply investigation.
- (3) Anakapalle water-supply investigation (since taken up in 1940).
- (4) Tanjore drainage (since ordered to be dropped).
- (5) Bezwada water-supply improvements—Adequacy of existing source (since taken up in 1940).
- (6) Tirupati-Tiruchanur water-supply investigation (since taken up in 1940).
- (7) Arni water-supply investigation (since taken up in 1940).
- (8) Srivilliputtur drainage (since ordered to be dropped).
- (9) Vriddhachalam water-supply investigation.
- (10) Dhone water-supply investigation.
- (11) Ranipet water-supply investigation (since deferred).
- (12) Attur Panchayat drainage
- (13) Rajahmundry drainage (for area not covered by the partial scheme).
- (14) Renigunta water-supply investigation.
- (15) Mannargudi water-supply investigation.
- (16) Aruppukottai water-supply investigation.

14. A statement showing particulars of estimates for sanitary works received from local bodies scrutinized and sanctioned by this department is enclosed (Annexure II).

Thirty estimates for Rs. 6,23,173 were sanctioned by this department during the year as against 80 estimates for Rs. 11,07,786 in 1938.

A statement showing the sanitary works done following the type design of Public Health Board is also appended (Annexure III).

15. *Water-supply—Periodical analysis.*—As in previous years, the staff of the King Institute collected periodically samples of water from the protected water-supplies of the Presidency and the reports of analysis of water furnished to this office and the local bodies concerned. The local bodies were advised to take steps where necessary to remedy defects.

16. *Experiments on water purification.*—No experiments were conducted during the year in the Government Experimental Filter station at Kilpauk. The question of reviving the experiments with a minimum staff was under the consideration of Government.

17. *Lectures in Elementary Sanitary Engineering.*—The Instructor in Elementary Sanitary Engineering attached to this department continued to conduct the course of lectures on Elementary Sanitary Engineering to the students of the Health Officers and Sanitary Inspectors' classes in the Medical College, Madras.

18. *Inspection of water-works and drainage systems.*—The Superintending Engineer (Public Health) and the Deputy Sanitary Engineers inspected the water-works and drainage systems under operation as far time and funds permitted.

19. *Pumping plants and machinery.*—The mechanical expert sanctioned by the Government on a temporary basis was as usual carrying out the inspection of the pumping plants of both water-supply and drainage stations of local bodies in the Presidency. He also prepared specifications for some new plants. A comparative statement of pumping particulars for the different stations prepared by this officer is enclosed—vide Annexure I.

20. *Municipal Engineers.*—There are now Municipal Engineers in 19 municipalities and the service is under the control of Superintending Engineer (Public Health).

21. *Direction.*—Sri A. V. Raman continued as Superintending Engineer (Public Health) throughout the year. The two posts of Deputy Sanitary Engineers continued to be held by (1) Sri T. S. Subrahmanya Ayyar and (2) Sri K. Harihara Ayyar. The post of Personal Assistant to Superintending Engineer (Public Health) was held by Sri C. P. Subbayya till 31st March 1939 afternoon when he reverted to the regular Public Works Department. Sri D. Gopalakrishnamachar, permanent Supervisor, Tirupati Municipality, was appointed under emergency regulations as Personal Assistant and has been holding the post since 1st May 1939. Mr. S. A. Davis, temporary Mechanical Expert, was on leave from 20th February to 19th June 1939 afternoon and reverted to the Boiler Inspection department from 1st August 1939 afternoon. Sri A. K. S. Ayyar is holding the post of Mechanical Expert from 9th October 1939 forenoon under emergency regulation.

22. *General.*—During the year under review the offices of the two Deputy Sanitary Engineers, whose headquarters were at Bezwada and Trichinopoly were transferred to Madras and their offices centralized with that of the Superintending Engineer (Public Health), Madras.

MADRAS,
19th June 1940.

N. GOVINDARAJA AYYANGAR,
Superintending Engineer (Public Health).

ANNEXURE I.

LIST OF WATER-SUPPLY AND DRAINAGE WORKS.

Inspected.

- | | |
|----------------------------|--------------------------------|
| 1 Anantapur water-works. | 20 Negapatam water-works. |
| 2 Bellary water-works. | 21 Rajahmundry water-works. |
| 3 Bezwada water-works. | 22 Rameswaram water-works. |
| 4 Bezwada drainage. | 23 Saidapet water-works. |
| 5 Cocanada water-works. | 24 Salem water-works. |
| 6 Coimbatore water-works. | 25 Tanjore water-works. |
| 7 Conjeeveram water-works. | 26 Tuticorin water-works. |
| 8 Chingleput water-works. | 27 Trichinopoly water-works. |
| 9 Chidambaram water-works. | 28 Tiruvannamalai water-works. |
| 10 Coonoor water-works. | 29 Vellore water-works. |
| 11 Ellore water-works. | 30 Vellore drainage. |
| 12 Guntur water-works. | 31 Tadpatri water-works. |
| 13 Erode water-works. | 32 Tirupati water-works. |
| 14 Kumbakonam water-works | 33 Vizagapatam water-works. |
| (partial). | 34 Vizianagram water-works. |
| 15 Madura water-works. | 35 Virudunagar water-works. |
| 16 Madura drainage. | 36 Srirangam water-supply |
| 17 Nellore water-works. | (partial). |
| 18 Ootacamund water-works. | 37 Ootacamund drainage. |
| 19 Palni water-supply. | |

Not inspected.

- | | |
|---------------------------|----------------------------|
| 1 Adoni water-works. | 7 Kurnool water-works. |
| 2 Cuddalore water-works. | 8 Periyakulam water-works. |
| 3 Cuddapah water-works. | 9 Masulipatam water-works. |
| 4 Dindigul water-works. | 10 Kodaikanal water-works. |
| 5 Gudur water-works. | 11 Palacole water-works. |
| 6 Gudiyattam water-works. | |

ANNEXURE II.

Statement showing the number and aggregate estimated cost of sanitary works prepared by local bodies and sanctioned by the Superintending Engineer (Public Health) and the Deputy Sanitary Engineers in 1939.

Particulars.	Water-supply.		Drainage.		Medical institutions.		Markets and slaughter-houses.		Latrines.		Miscellaneous.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
		RS.		RS.		RS.		RS.		RS.		RS.
Below Rs. 2,500	..	..	..	..	..	..	..	..	..	..	..	..
Rs. 2,500 to Rs. 10,000	11	60,562	1	5,900	..	..	1	5,460	..	..	1	7,800
Rs. 10,000 to Rs. 50,000	9	1,71,296	2	59,000	1	20,600	1	38,310	..	..	..	..
Above Rs. 50,000	1	74,000	1	55,245	..	..	..	..	..	..	1	95,000
Total	21	3,05,858	4	1,50,145	1	20,600	2	43,770	..	..	2	1,02,800

Number of estimates—30 estimated to cost Rs. 6,23,173 against 80 estimates costing Rs. 11,07,786 in 1938.

ANNUAL REPORT OF THE

ANNEXURE III.

Statement of sanitary works constructed on the basis of Public Health Board type-designs by local bodies during the year 1939.

Number, name and description of work.	Locality, name of town or village.	Number of type-design on which work was based.	Number and date of sanction of Superintending Engineer (P.H.), or Deputy Sanitary Engineers.	Date of commencement of work.	Date of completion of work.	Full cost of work.	Remarks as to the success or failure of type-design construction.
						RS.	
1 Latrine of 6 seats	Bezwada	San. No. 49 of 1927.	..	14th October 1939.	23th January 1940.	318	Successful.
2 Do. (one set)	Do.	Do.	..	20th December 1938.	23rd February 1939.	661	Do.
3 Latrine of 10 seats	Do.	Do.	..	6th January 1939.	9th March 1939.	931	Do.
4 Do. 6 seats	Do.	Do.	..	22nd January 1939.	27th March 1939.	660	Do.
5 Do. 6 seats	Do.	Do.	..	26th January 1939.	30th March 1939.	696	Do.
6 Do. 8 seats	Do.	..	..	20th April 1939.	28th June 1939.	1,240	Do.
7 Kaleswara Rao Market buildings	Do.	..	..	October 1936 ..	3rd December 1939.	2,55,000	....
8 Dry earth latrines (5)	G. Mamidada	..	..	26th January 1939.	15th March 1939.	930	....
9 Do. of 12 seats	Dindigul	T.D. 193 ..	..	20th May 1939.	6th August 1939.	568	Working very satisfactorily.
10 Latrine of 12 seats	Guntur	San. No. 141 of 1934.	..	6th November 1939.	21st December 1939.	641	Successful.
11 Latrine	Hospet	T.D. No. 193 ..	..	5th September 1938.	31st March 1939.	432	....
12 Do.	Do.	Do. ..	..	15th September 1938.	20th January 1939.	447	....
13 Dry earth latrine (6 seats)	Negapatam	San. No. 49 of 1927.	..	5th January 1939.	30th June 1939.	335	Working satisfactorily.
14 Do.	Do.	Do.	..	10th March 1939.	30th November 1939.	308	Do.
15 Latrine of 12 seats	Rajahmundry	San. No. 141 of 1934.	..	10th July 1939.	23th September 1939.	664	Do.
16 Construction of a slaughter-house (3).	Sembiam	..	..	7th June 1939.	26th July 1939.	896	Successful.
17 Dry earth latrine, 5 seats	Salem	San. No. 49 of 1927.	..	9th February 1939.	18th March 1939.	297	....
18 Do.	Do.	Do.	..	13th February 1939.	23rd March 1939.	280	....
19 Dry latrine (2 sets of 6 seats each). .. .. .	....	..	..	..	..	550	....

ANNUAL REPORT OF THE SUPERINTENDING ENGINEER (PUBLIC HEALTH) FOR 1939

Comparative Statement of Water-works Pumping Plant for the year—1938-39
—cont.

Serial number.	Water-works Station.	Cost of fuel or energy and lubricating oil per million foot gallons in annas. (1938)	Cost of fuel or energy and lubricating oil per million foot gallons in annas. (1939)	Remarks.
19	Madura—			
	Kochadai ..	3-50	3-66	.....
	Arapalaiyam ..	13-00	8-00	The pumping units were reconditioned during the year under report and hence savings.
20	Masulipatam ..	..	6-76	Newly installed electrical pumping sets are run.
21	Negapatam ..	4-80	5-21	The council have proposed to electrify the station and Superintending Engineer (Public Health) has approved the same to effect economy.
22	Nellore ..	6-60	6-13	.....
23	Palakole ..	5-92	6-65	The revised figures for 1938 works out to 6-40 against 5-92 as shown. Hence there is no considerable difference in running cost.
24	Proddatur ..	33-80	32-00	The plant has been running most uneconomically for the last several years. The prohibitive cost of fuel on the one hand and the inefficiency of the plant on the other hand, suggest replacement by an efficient plant in the near future.
25	Rajahmundry ..	5-20	6-90	The revised figures for 1938 works out to 6-6 against 5-2 shown. Hence no considerable difference.
26	Rameswaram ..	6-24	6-70	The revised figures for 1938 works out to 6-90. Hence no considerable difference in cost.
27	Saidapet ..	7-62	8-00	.....
28	Tadpatri ..	5-00	6-04	The fuel sprayers are functioning very unsatisfactorily. Arrangements are being made to replace them by new ones.
29	Trichinopoly ..	..	3-75	The plant is running very efficiently. In addition the rate at which electricity supplied is lowest in the Presidency.
30	Tanjore ..	8-00	5-21	The revised figures, namely, 6-6 is much less than shown, in 1938. Further, one of the steam units was reconditioned and hence reduction in running cost.
31	Tiruvannamalai.	3-00	3-22	The revised figures for 1938 works out to 3-30. Hence no considerable difference.
32	Tuticorin ..	2-56	2-36	This is the most efficient and least costly to run of all the various types of oil engine plants and electrically-driven plants.
33	Vellore ..	2-08	2-19	The revised figures for 1938 works out to 2-25. Hence there is no considerable difference.
34	Vizagapatam ..	4-32	6-50	The revised figures for 1938 works out to 6-05. The station is proposed to be electrified.
35	Virudunagar ..	6-00	5-48	The savings are due to the plant running more efficiently, having run after newly installed.
36	Vizianagram ..	5-00	5-26	.....

Government of Madras

EDUCATION AND PUBLIC HEALTH DEPARTMENT

(Public Health)

G.O. No. 4557, 28th September 1940

Public Health Administration—1939—Report—Reviewed.

READ—the following papers :—

I

Letter from Lieut.-Col. C. M. GANAPATHY, M.C., I.M.S., Director of Public Health, to the Secretary to Government, Education and Public Health Department, dated 29th June 1940, No. 22417-4 V.S./40.

I have the honour to forward herewith six printed copies of my Administration Report for 1939 including the Administration of Vaccination during 1939-40. Some minor corrections have been made in the printed copies.

II

Letter from H. R. DOGRA, Esq., B.Sc., Chief Engineer, Public Works Department (General, Buildings and Roads), to the Secretary to Government, Education and Public Health Department, dated 5th August 1940, No. 2536-Ad./40 C.R.

I forward herewith the Administration Report for 1939 received from the Superintending Engineer (Public Health), together with my remarks showing the further stages of the several water-supply and drainage schemes in progress, executed by, or under the supervision of, the Public Works Department.

ENCLOSURE.

Administration report—Sanitary Engineering Department—Chief Engineer's remarks.

Water-supply Schemes.

1. Gudiyattam Water-supply Improvements.—Construction of pump pit was almost completed and removal and re-laying of old pipes were in progress. A contractor for constructing service reservoir was selected and other preliminaries were in progress.
2. Erode Water-works—Electrification.—The final bill for the work was paid and the accounts of the work were closed.
3. Mettupalaiyam Water-supply Scheme.—The Reinforced Concrete Service Reservoir was built up to top level of floor slab.

4. *Calicut Water-supply Scheme*.—The estimate for the scheme was revised by the Superintending Engineer (Public Health). Tenders for the supply of pipes and specials required for the pumping main and distribution system were called for through Indian Stores Department.

5. *Salem (Mettur) Water-supply Scheme*.—The structure of the Intake Tower at Mettur was raised to plus 798.00. Inlets up to No. 7 with bell mouth and ball valves were fitted up. The subsidiary well and leading channel were completed. The bays of the trestle for the approach bridge were erected and the bottom 12 feet gunnited. Contractors for a provision of pipes for the Gravitation main from Nangavalli to Salem were also selected.

6. *Tiruppur Water-supply Scheme*.—A revised estimate for Rs. 2,34,070 was sanctioned by Government in September 1939.

7. *Pollachi Water-supply Scheme*.—A revised estimate for Rs. 5,46,960 was sanctioned by Government in January 1940. Supply of pipes and specials required for the pumping main was completed. Laying and jointing 12 inches cast iron pipes from the Headworks to very near the reservoir site, a length of about 26,000 feet, was completed. About 90 per cent of the supply of pipes and specials required for the distribution system was received from Bhadravathi, and agreement for laying and jointing was concluded. The tender for reinforced concrete reservoir was under scrutiny.

8. *Coonoor Water-supply Scheme (Ralliah Dam Construction)*.—The work is being executed by the Municipality under supervision of the Public Works Department and not by the Public Works Department as stated by the Superintending Engineer (Public Health). A revised estimate for Rs. 3,07,000 was sanctioned by Government in February 1940. The masonry dam with approaches on either side was nearly completed. Reinforced gunniting was done on the water face of the dam to ensure water tightness. Other sub-works like watchman's quarters, forming road, etc., were completed. Experiments were being made to decide the best and cheapest way for the removal of tree-stumps.

9. *Valparai Water-supply Scheme*.—The final payment towards the cost of the existing scheme was made to the Anamalai Planters' Association.

10. *Srirangam Water-supply Scheme*.—A revised estimate for Rs. 1,14,000 was sanctioned in G.O. No. 3825, P.H., dated 20th October 1939. The new mains were handed over to the Municipality.

11. *Bodinayakanur Water-supply Scheme*.—Construction of a length of over 5 furlongs of the approach road, laying of a length of about 18,000 feet of gravitation main from the reservoir and towards off-take, and execution of foundations and concreting for the service reservoir were done. Laying and jointing of the Gravitation main, masonry for the service reservoir, and acquisition of plots along the revised alignment for the distribution main were in progress.

12. *Sembiem Water-supply Scheme*.—Syphon pipe line, pumping main, reinforced cement concrete reservoir, and pump house were completed.

13. *Saidapet Water-supply Scheme (Main Scheme)*.—Painting service reservoir and construction of soak pits were partly carried out. All other works were completed.

14. *Saidapet Water-supply Scheme (Extension to Mambalam, Mettupalaiyam, Little Mount, Guindy, etc.)*.—Materials required for the additional pipes and the scour valve at Guindy were being collected.

15. *Trivellore Water-supply Scheme*.—Almost all items of work connected with the scheme except minor items such as levelling the site, forming approach road, fencing for the reinforced concrete reservoir, fencing round

the Headworks were completed. The latter minor items are under execution.

16. *Cuddapah Water-supply (Emergency) Scheme*.—Laying and jointing of pipe lines and construction of engine shed are just taken up. Selection of tenders for the construction of reinforced concrete reservoir was under consideration by the Superintending Engineer.

17. *Improvements to Nellore Water-works*.—The works were completed and 23.46 in 1938 to the Municipality on 6th May 1940.

18. *Vayalpad Water-supply Scheme*.—The infiltration well was sunk to a depth of 14 feet from ground level.

19. *Cocanada Water-supply Improvements Scheme—Part I Scheme*.—The estimate for the scheme was under revision by the Superintending Engineer (Public Health) and there was no expenditure on the scheme during the year under report. No provision for this scheme was therefore included in the Revised Estimate for 1939-40 and Budget Estimate for 1940-41.

Part II Scheme.—The agreement for the construction of reinforced cement concrete gauge board was drawn up by the Municipality. The working drawings for the mechanical filtration plant submitted by the contractors were found to be defective and they were asked by the Chief Engineer to submit working drawings strictly in accordance with the sanctioned plans. They have since submitted certain revised proposals and they are under consideration of the Chief Engineer and Government.

20. *Ellore Water-works—Construction of a IV Filter bed*.—The work was completed and handed over to the Municipality.

21. *Palacole Water-works*.—The work was completed and the cost of materials handed over to the Municipality adjusted. Government have passed orders in G.O. No. 1266, P.W., dated 21st June 1940, regarding the refund of unspent balance of contribution to the Municipality.

22. *Improvements to Bezwada water-supply*.—Rearrangement of distribution system. The laying of 14 inches feeder main from service reservoirs up to railway level-crossing and the laying of other sub-mains, etc., were completed except under the Railway level-crossing near Satyanarayanapuram. The second and final half of the scheme is yet to be executed.

23. *Adoni (Hagari) Water-supply Scheme*.—The buildings at Headworks at Raravi were nearing completion. Erection of engines and pumps with connecting sections and delivery pipe mains was under execution.

24. *Karamadai Panchayat water-supply*.—There was a provision of Rs. 8,200 in the Budget Estimate for 1939-40 for this scheme. The scheme was under execution by the District Board Engineer under the supervision of the Superintending Engineer, Coimbatore Circle. Yield test only was conducted and further work was not taken up pending sanction to a revised estimate for the scheme. In view of the financial condition of Government, further execution of the scheme was postponed and no provision for it was therefore made in the Revised Estimate for 1939-40 and Budget Estimate for 1940-41. A revised estimate for the scheme for Rs. 21,100 has since been submitted to Government by the Chief Engineer in March 1940 and orders of Government thereon are awaited.

25. *Mathiapalayam water-supply*.—There was a provision of Rs. 8,800 for this scheme in the Budget Estimate for 1939-40. As there was some difficulty in obtaining permission of the owners of the land to lay the pipes in their lands, the execution of the scheme could not be taken up. In view of this and in view of the financial conditions of Government, the execution of the scheme was deferred.

26. *Perur water-supply*.—There was a provision of Rs. 5,400 in the Budget Estimate for 1939-40. But no work was done in the year under report as the estimate for the scheme required revision and as the Coimbatore Municipal Council refused to give permission to tap the municipal water main. The execution of the scheme was therefore postponed. The question of Government exercising the powers under section 19 of the Madras Public Health Act of 1939 and tapping the municipal water main is now under their consideration.

27. *Peddapuram water-supply*.—Government have since made provision of Rs. 10,000 for this scheme in the Budget Estimate for 1940-41 and the land acquisition proceedings are still in progress.

28. *Wallajah water-works*.—The execution of the scheme has since been revived with reference to G.O. No. 940, P.H., dated 2nd March 1940.

Drainage Schemes.

1. *Coimbatore Drainage Scheme*.—The execution of the scheme from the second instalment onwards was taken up by the Public Works Department and details of working estimates based on fresh levels, etc., were prepared for Blocks A to D. Consequent on the outbreak of war, Government orders were received to postpone the execution of the scheme, but orders were subsequently received to proceed with the execution.

2. *Salem Drainage Scheme*.—The work under the fourth instalment was practically completed. The fifth instalment of the scheme has since been sanctioned for execution.

3. *Srirangam Drainage Scheme*.—Construction of open drains 2 and a portion of II was done. Except for this, the works were completely suspended, pending sanction to the revised estimate. First instalment of the scheme has since been ordered to be proceeded with, sanction to the revised estimate having been received in G.O. No. 2740, P.H., dated 21st June 1940.

4. *Negapatam Drainage Scheme*.—Construction of pumping station No. 1, inserting a 3 inches diameter pipe under track in Jerry road level-crossing for taking the 14 inches drain municipal pumping main, laying of certain sections of intercepting sewers, supply of pumping plant for block No. 1, etc., were carried out. The sewer stations between certain manholes were in progress. Clearing the site around pumping station No. 1 was in progress. Component parts such as pipes and wiring, etc., were being executed.

5. *Tirupati Drainage Scheme—IV instalment*.—Construction of all the drains was over except for a small portion of drain No. 33. Construction of storm water overflow drain was in progress.

6. *Rajahmundry Partial Drainage Scheme*.—The work is being executed by the Municipality under the supervision of the Public Works Department. A revised estimate for Rs. 3,21,000 was sanctioned by Government in July 1939. The intercepting drain was completed except construction of drain junctions and provision of flap valve shutters. The construction of motor and pumping house was completed except formation of roads. Laying of the sewage farm was completed except catch water drains. Construction of storm water drains was just started.

Order—No. 4557, P.H., dated 28th September 1940.

At the instance of the Government of India, a review of the health conditions in the Province of Madras, in 1939, was issued in March 1940, with G.O. No. 1219, P.H., dated 28th March 1940, with a view to

acquaint the public with the health conditions in the year at the close thereof. The principal innovations of the year were the opening of public health museums, the constitution of the Public Health Board in place of the Public Health Committee and the constitution of a committee for the administration of public health in the Negapatam Port.

2. The total mortality rate in the year was 25.26 as compared with 23.46 in 1938 and the average of 24.12 for the five years ending 1938. Both the urban and rural mortality increased, the former from 26.71 to 28.91 and the latter from 22.93 to 24.67. The number of infantile deaths accounted for 26.8 per cent of the total mortality, the total urban and rural infantile mortality being 179.69 and 175.08 per thousand respectively.

3. The mortality from cholera, viz., 2,115 deaths in the year, was the lowest on record during the past 58 years. It is observed that out of these 2,115 deaths, the districts of South Arcot and Tanjore alone accounted for 854 and 806, respectively, the municipalities of Kumbakonam and Mayavaram alone in the Tanjore district accounting each for 27 and 21, respectively, against a total of 67 in nine municipalities. The report on the investigation of the high rate of mortality in these districts is awaited from the Director of Public Health.

4. The number of deaths from plague registered during the year, viz., 324 against 1,155 in 1938, was the lowest on record since 1898. Only five municipalities were affected recording in all seven deaths. The remarkable reduction in the incidence of the infection generally in the Province is ascribed to cyanogas fumigation. The plague research work, which had been conducted under the auspices of the Indian Research Fund Association, was taken over by the Government; contributions were made by the association, the Government of Travancore and the Madura District Board.

5. The mortality from smallpox showed a large increase from 2,273 in 1938, to 3,120 during the year, the number of deaths from the disease in the Chingleput district alone being as high as 838.

6. "Fever" were responsible for 28 per cent of the total mortality in the year as against 27 per cent in 1938. "Other causes of deaths" again included 52 per cent of the total mortality. It is unfortunate that there should be so much inexactitude in the recording; but there is at present no practicable means of avoiding it. Respiratory diseases were responsible for 21 per cent of the total deaths in municipalities giving a mortality rate of 6.81 as against 2.12 in rural areas. If the basis of classification is uniform this indicates the favourable conditions for the spread of respiratory diseases in big towns.

7. Anti-malaria work was continued in a few places, where there are reasons for special efforts. Such places were Pattukkottai (Tanjore district), where the malaria had been increasing since the completion of the Cauvery-Mettur Project, Wynaad (Malabar district), Ennore (Chingleput district) and Krishnadevipeta (Vizagapatam Agency). Anti-mosquito campaigns were organized in several municipal towns and panchayats and the results are reported to be satisfactory.

8. The Health Unit at Poonamallee continued its useful activities. The department maintained the progress achieved in health propaganda,

rural sanitation, vaccination and maternity and child-welfare work. The percentages of cases that received skilled aid at child-births in rural and urban areas were 5.43 and 38.77, respectively. But the recorded maternal mortality rate per 1,000 births in those areas was as high as 12.13 against 8.63 in rural areas.

9. The execution of the water-supply schemes for Arkonam and for Manapparai was completed and the schemes were brought into operation during the year under review. The number of towns, municipal and panchayat, having a protected water-supply was 45 as against 43 in the previous year. In all 32 water-supply schemes, including extensions and improvements to existing schemes, were under execution during the year. The Government are glad to note that satisfactory progress is being made in the execution of the schemes.

(By order of His Excellency the Governor)

E. C. Wood,
Secretary to Government.

- 33681
- To the Surgeon-General.
 - " the Director of Public Health.
 - " the Chief Engineer (General, Buildings and Roads).
 - " the Sanitary Engineer.
 - " the Inspector-General of Prisons.
 - " the Inspector-General of Police.
 - " the Director of Public Instruction.
 - " the Director of Veterinary Services.
 - " the Examiner of Local Fund Accounts.
 - " the Inspector of Municipal Councils and Local Boards.
 - " the Mayor, Corporation of Madras.
 - " all Collectors.
 - " all Presidents of District Boards.
 - " all Executive Authorities (through the Chairmen of Municipal Councils concerned).
 - " the Director, King Institute, Guindy.
 - " the Director, Pasteur Institute, Coonoor.
 - " the Secretary, Local Self-Government Department, Bihar Government (with C.L.).
 - " the Director, All-India Institute of Hygiene and Public Health, Calcutta (with C.L.).
 - " the Public Health Commissioner with the Government of India (with C.L.).
 - " the Government of India, Department of Education, Health and Lands (with C.L.).
 - " the Joint Secretary, Countess of Dufferin's Fund Central Committee, Simla.
 - " the Director, Maternity and Child Welfare Bureau, Indian Red Cross Society, New Delhi.
 - " the Director, Eastern Bureau Health Organization, League of Nations, Singapore (with C.L.).
 - " the Officer in charge of the Board of Administration.
 - " the Public Works Department.
 - " the Revenue Department.
 - " the Local Administration Department.
 - " the Secretary, Secretariat, Madras Legislatures.
 - " the Librarian, Secretariat Library.
 - " the Consul-General for Siam at Calcutta.

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