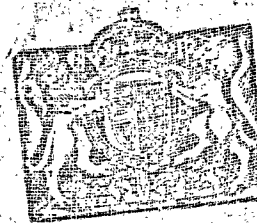


35445

ANNUAL REPORT OF THE
DIRECTOR OF PUBLIC
HEALTH, MADRAS, 1932



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N32
35445



OF THE DIRECTOR OF PUBLIC
HEALTH, MADRAS, FOR 1932

INCLUDING

ADMINISTRATION OF VACCINATION
IN 1932-33

AND

FORTY-THIRD ANNUAL REPORT OF THE
SANITARY ENGINEER TO GOVERNMENT
1932

MADRAS

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ANNUAL REPORT OF THE DIRECTOR OF PUBLIC HEALTH, MADRAS, 1932.

RAINFALL AND PRICES OF FOOD-GRAINS.

The average district rainfall during 1932, and the two previous years, 1931 and 1930, were 47.82, 50.44 and 56.46 inches, respectively. The seasonal distribution in 1932 was as follows:

Inter-monsoon—February to May 1932	7.43
South-west monsoon—June to September 1932	21.71
North-east monsoon—January and October to December 1932	18.68
Total	47.82

The rainfall, though slightly smaller in quantity than in the previous years, was on the whole evenly distributed.

2. The subjoined table shows the changes in the prices of food-grains during the last three years, as compared with the average of the previous ten years:

Grains.	Seers available per acre in				Percentage variation from		
	1932.	1931.	1930.	Average for ten previous years (1922-1931).	1932.	1931.	1930.
Rice	9.9	8.6	7.0	8.1	-37.5	-35.0	-12.5
Ragi	18.4	17.9	13.1	10.9	-40.0	-37.7	-15.5
Cholam	16.5	16.8	12.9	10.3	-37.1	-39.2	-27.8
Ountra	17.0	15.7	11.3	9.7	-42.0	-38.0	-10.0

The economic depression continued in an acute form in this province. There was a further fall in the prices of the chief food-grains and the trading and agricultural classes were greatly hit. On the whole, there was continued distress.

GENERAL POPULATION.

3. The population as per census of 1931 enumerated territory with an area of 142,277 square miles was 46,000,000, or a density of 320 persons per square mile. The statistics were recorded was however the population of Europe, India, and...

progression, is 45,763,500. The mid-year population estimated by the accruing excess of births over deaths and of immigration over emigration is 45,716,839. These two figures are closely approximate, the latter estimate falling short of the former by only about 0.1 per cent.

IMMIGRATION AND EMIGRATION.

4. There was a further decline in the number of unskilled labourers emigrating to Ceylon and Malaya. The following figures are for the last five years:—

1928	163,856	1931	68,439
1929	192,400	1932	50,886
1930	133,700		

There was an almost complete stoppage of emigration to Malaya, the number of emigrants falling from 42,275 in 1930 to 103 in 1931 and to 17 during 1932. The number of emigrants to Ceylon fell from 68,887 in 1931 to 50,869 in 1932. The depression in the rubber, tin and tea industries, which began in 1930, has been responsible for the large reduction in emigration. The number of immigrants from Ceylon and Malaya was 72,225 exclusive of those who returned to India at their own expense.

VITAL STATISTICS.

During the year under report, an important step for better registration and compilation of vital statistics was taken. The collection of statistics for non-municipal areas was transferred to Collectors' offices to this office. The work is now done in this office by a staff of 16 clerks under the general supervision of the Statistical Assistant. Previously, 44 clerks were employed for this work in the Collectors' offices. When this transfer was effected, doubts were expressed whether there would not be a deterioration in registration by village headmen. The Government made it clear that Collectors should continue to remain responsible for the work of registration as before. These doubts have been groundless and the transfer of this work has resulted in a great improvement in two directions, viz., (i) increasing completeness and accuracy in registration and compilation, (ii) prompt and more complete reports by Collectors and Chairmen, Municipal Councils, of all cases of epidemic occurring within their jurisdiction. Without doubt the transfer of the work has contributed to the quantitative improvement of registration of vital statistics.

by the District Health Officer and 19,068 deaths registered.

registration has been poorer in those areas to which the Act has been extended than in those where the Act was not in force. Village headmen are under the mistaken impression that, if the extension of the Act is made, they need register only those events which are reported to them, while the people take a long time to realize the change of the law. Government in G.O. No. 2549, P.H., dated 9th December 1932, issued instructions for the better working of the Act and it is hoped that the object of the Act will be more fully realized in future.

7. As pointed out in the previous reports the practice of calculating birth and death rates on the census population, without making any allowance for the growth of population during the intercensal years, presents an incorrect picture of the vital statistics of the province. The birth and death rates of the province for the year, calculated on the 1931 census population, were 36.08 and 21.96 per mille respectively, while the same rates calculated on the estimated population of the province referred to in paragraph 3 above, viz., 45,763,500, were 35.56 and 21.67, respectively. The difference between these two rates is appreciable.

8. It is instructive to compare the differences between the rates as calculated on the census and on the estimated populations over a series of years. The following tabular statement compares the birth and death rates of the province from 1921 onwards as calculated by the two methods. The mid-year populations have been estimated on the basis of the intercensal growth during the decade 1921-31, as the successive terms of a geometric series, the period between the two censuses being reckoned to be one of ten years. As the final census figure for the population, for which vital statistics were recorded, slightly differs from the provisional figure used in a similar table in last year's report the whole table has been recalculated.

For the mid-year populations of 1931 and 1932, the census population of 1931 has been taken as the basis for calculation with the rate of increase for the decade, 1921-1931.

Year.	Mid-year population for which vital statistics were recorded.	Number of Births.	Birth-rate based on the intercensal population.	Birth-rate based on the present method.	Number of Deaths.	Death-rate based on the intercensal population.	Death-rate based on the present method.	Difference in the birth-rates, col. (3) - col. (4).	Difference in death-rates, col. (6) - col. (7).
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1921	41,102,371	1,108,474	27.0	27.0	896,897	20.1	20.2	Nil.	+0.2
1922	41,502,495	1,231,722	29.0	29.0	859,236	20.7	21.0	Nil.	+0.3
1923	41,900,712	1,358,748	32.4	32.1	908,825	21.7	22.2	+0.7	+0.5
1924	42,314,807	1,480,858	34.8	34.9	1,000,043	23.8	24.5	+1.1	+0.7
1925	42,727,600	1,582,477	37.0	37.7	1,000,558	23.4	24.4	+1.3	+1.0
1926	43,148,118	1,680,293	38.9	38.1	1,048,529	24.3	25.6	+1.8	+1.3
1927	43,563,344	1,785,747	40.8	39.5	997,742	22.9	24.3	+2.2	+1.4
1928	43,987,726	1,884,445	42.8	41.9	1,080,744	24.6	26.4	+2.5	+1.8
1929	44,411,108	1,982,475	44.6	43.9	1,037,452	23.4	25.3	+2.9	+1.9
1930	44,834,612	2,082,475	46.4	46.4	1,045,972	23.3	25.6	+3.4	+2.2
1931	45,322,074	2,006,403	44.3	45.5	1,072,572	23.7	23.7	+0.1	Nil.
1932	45,763,500	1,627,381	35.6	35.0	992,024	21.7	22.0	+0.4	+0.3

It will be noticed from columns 9 and 10 that the difference between the two rates steadily increases and reaches a maximum in the year 1930, which just preceded the last census. I desire once again to impress on Government the necessity for calculating the birth and death-rates on the estimated population and it is hoped that, before long, this system will come into general use so that the rates will be a nearer representation of actual facts.

9. In spite of the continuous efforts by this Department registration of vital statistics still continues to be poor in rural towns. In approximately 30 per cent of the towns low birth-rates of less than 30 per mille and in 40 per cent of the towns low death-rates of less than 20 per mille were registered. When Collectors were asked to account for the causes of these low rates, the replies given were that the low rates were due to natural causes. As these towns should show no real abnormality in comparison with other towns in this Presidency, the true explanation of the low rates is, of course, defective registration. The remedy rests with the panchayats. Major panchayats should employ sanitary inspectors for registration of births and deaths. These inspectors could be held responsible for many other duties and it would greatly help to improve the sanitary state of these towns, a condition which is sadly neglected to-day. The case of Devakotta Panchayat in Ramnad district may be quoted. This panchayat recorded only 2.8 per mille of births and 3.9 per mille of deaths in 1932. In January 1933 only 2 births and 4 deaths were recorded. On 1st February 1933, a sanitary inspector was appointed and, for the next three months, the registered figures were 107 births and 43 deaths. It is clear that the appointment of the sanitary inspector led to this considerable improvement. I strongly urge Government to enforce this measure, which was brought to notice in my previous report.

Sixteen municipalities registered low birth-rates of less than 30 per mille and 19 low death-rates of less than 20 per mille.

Among the general defects noticed in the registration of births and deaths the following may be mentioned, viz., (1) incorrect classification of causes of death, (2) tendency to register deaths under "Fevers" or "Other causes," and (3) omission to note particulars of age and class. Occasional inexcusable blunders were committed such as putting down a death due to child-birth in the column for males.

10. The salient features in the recorded vital statistics of the province compared with the previous year are summarized below:—

(a) A small rise in the birth-rate from 35.5 per mille to 36.0 as calculated on the census population or from 35.4 to 35.6 per mille as calculated on the mid-year estimated populations.

(b) A decrease in the death-rate from 23.7 to 22.0 per mille as worked on the census population or from 23.7 to 21.7 as calculated on the estimated populations.

(c) A large decrease in the mortality from cholera from 30.222 to 5.278.

(d) A slight increase in the mortality from smallpox from 4,680 to 5,363, and from plague from 1,073 to 1,561.

(e) A fall in the mortality from fevers from 331,834 to 291,416 and from child-birth from 14,365 to 12,589.

BIRTHS IN DISTRICTS.

11. The total number of births registered in the Presidency during 1932 was 1,627,331 giving a birth-rate of 36.03 per mille, the rate for 1931 and the quinquennial average being 35.54 and 37.43, respectively. 105 males were born for every 100 females; male births predominating as usual. The seasonal distribution of births was as follows:—

				Percentage to total.
First quarter—				
January	...	...	108,575	313,562
February	...	...	98,531	
March	...	...	106,456	
Second quarter—				
April	...	...	116,366	394,566
May	...	...	133,541	
June	...	...	144,659	
Third quarter—				
July	...	...	161,327	480,016
August	...	...	164,050	
September	...	...	154,639	
Fourth quarter—				
October	...	...	151,822	430,237
November	...	...	143,315	
December	...	...	144,100	
Total				1,627,381
				100.00

The birth-rates per mille in the chief communities were as follows:—

Hindus	35.86	Christians	22.92
Mahammadans	37.27	All communities	36.03

The birth-rates in 1932 in the different provinces in India are given below:—

Assam	30.06	North-West Frontier Province	28.89
Bengal	26.60	Punjab	41.36
Bihar and Orissa	33.80	United Provinces	34.66
Bombay	35.89	Madras	36.03
Barma	27.95		
Central Provinces	45.20		

Four districts registered birth-rates above 40 per mille, thirteen between 40 and 35 per mille and eight between 35 and 30 per mille. The remaining district of Ramnad registered a low birth-rate of 27.98. This district registered low birth-rates in previous years also. The fact that the district consists mainly of zamindari villages is reported to be the main reason for defective registration in the area. Necessary measures are being taken to improve

registration in the district. The individual district figures are given in Table No. 1, Appendix I. The birth-rates decreased in 9 districts as compared with the previous year and increased in the rest. The decreases ranged from -5.21 in Tinnevely to -0.08 in Madura, and the increase from +6.55 in Nellore to +0.14 in Chingleput. In all districts, the birth-rate was in excess of the death-rate, the excess ranging from 19.9 in Kurnbol to 8.71 in Madras. It was precisely these two districts which showed the highest and the lowest excess of birth-rate over the death-rate in 1931. The birth-rate in urban areas (municipalities and rural towns) was 35.75 and in the non-urban areas 36.07 per mille.

The number of still-births in non-municipal areas was 15,826, giving a rate of 10.6 per 1,000 live-births as compared with 11.6 in the previous year. The rate is however only about a fourth of what it is in the municipal towns and this low rate can only be due to defective registration of still-births in districts.

BIRTHS IN MUNICIPALITIES.

12. The birth-rate in the 82 municipal towns of the Presidency was 36.59 during the year as compared with 35.19 in the previous year. Tenali Municipality registered the lowest birth-rate of 20.73, while 15 other municipalities registered low birth-rates between 25 and 30 per mille. The causes for these low rates are mainly defective registration. Tenali also returned the lowest birth-rate in 1931. This municipality must realize that, without correct records of births and deaths, it cannot satisfactorily discharge its primary duty of protecting the health of its citizens. Table VI. of Appendix I gives the birth-rates of individual municipalities.

The number of still-births in municipalities was 5,873, giving a ratio of 43.2 per 1,000 live-births during the year against 43.3 in the previous year.

BIRTHS IN RURAL TOWNS.

13. The total number of births registered in the 246 rural towns of the Presidency with a population of 2,567,282 was 88,071, giving a birth-rate of 34.31 per mille against 35.89 in the previous year. The rural towns are classified according to their recorded birth-rates in the following statement:—

Birth-rates.	Number of towns.	
	1932.	1931.
Below 20 per mille ...	9	16
Between 20 and 30 per mille ...	60	52
Between 30 and 40 per mille ...	122	91
40 per mille and above ...	55	43

During the year 9 rural towns registered low birth-rates of less than 20 per mille, as compared with 16 in the previous year. Of these, Devakotta returned the absurdly low rate of 2.8. As mentioned previously with the appointment of a Sanitary Inspector in February 1933, registration improved in the town. Of the remaining eight towns four, viz., Pallattur (14.63), Kottaiyur (16.81), Ilayangudi (16.96), and Nattarasankottai (17.47) were in Ramnad

district. The attention of the Collector should be drawn to the very defective registration in these towns year after year.

DEATHS IN DISTRICTS.

14. The total number of deaths registered in the Presidency during the year was 992,024 giving a death-rate of 21.96 per mille, the rate for 1931 and the quinquennial average being 23.72 and 25.05, respectively. The death-rate for the year based on the estimated mid-year population was 21.7. There has been a fall in the death-rate during the year as compared with the previous year. There were 103.49 deaths among males for every 100 deaths among females. In the districts of Tanjore (97.85), and South Kanara (99.07) however, the female mortality was in excess. This was also the case in the previous year for these two districts. These two districts among others showed an excess of female population over male population according to the 1931 census, and this probably explains the higher female mortality in the districts.

The following table shows the seasonal distribution of deaths during the year:—

	Deaths in 1932.	Percent- age.
First quarter ...	254,268	25.68
Second do. ...	221,755	22.35
Third do. ...	245,697	24.77
Fourth do. ...	269,804	27.20
Total ...	992,024	100.00

As usual the lowest incidence of mortality has occurred in the second quarter. The summer months appear to be the healthiest in this Presidency.

The death-rates in the chief communities of the province were as follows:—

	Death-rate per mille of population		
	Males.	Females.	Total.
Hindus ...	22.91	21.54	22.22
Muhammadans ...	21.21	20.08	20.64
Indian Christians ...	17.61	17.05	17.34
All communities ...	22.61	21.31	21.96

The Indian Christian death-rate continues to be low, as in the previous year.

The death-rates in the different provinces of India for 1932 are given below:—

Provinces.	Death-rate per mille.	Provinces.	Death-rate per mille.
Assam ...	18.96	North-West Frontier Province ...	20.00
Bengal ...	20.5	Punjab ...	24.70
Bombay ...	23.04	United Provinces ...	22.23
Bihar and Orissa ...	20.60	Madras ...	21.96
Burma ...	17.30		
Central Provinces.	26.89		

DEATHS IN MUNICIPALITIES.

15. During the year under review, 97,017 deaths occurred in the municipal towns of the Presidency, giving a death-rate against 27.19 in the previous year, the quinquennial average being 31.14. Decreases in the death-rate were registered in 49 municipalities and increases in the rest. Tadpatri (14.18), Chicacole (14.35), and Tenali (15.10) registered low death-rates and these are due to defective registration. Of these Tadpatri and Tenali registered low rates in the previous year also. The attention of these municipalities should be drawn to the very defective registration of births and deaths year after year. Sixteen other municipalities also returned low death-rates below 20 per mille. These low rates are obviously due to defective registration and the municipal councils concerned must take the necessary measures to improve registration in their areas. The rates of individual municipalities are found in Table V.

16. The number of deaths registered in the rural towns of the Presidency during the year was 55,642 giving a rate of 21·68 per mille, the rate for 1931 being 22·84.

Sixty-nine rural towns registered low rates of less than 20 per mille and of these 17 returned low rates of less than 15 per mille, while Devakotta and Kottaiyur (both in Ramnad district) returned the absurdly low rates of 3.87 and 3.50, respectively. The obvious way of improving vital statistical registration seems to be for these towns to appoint sanitary inspectors as has been done by Devakotta and the services of these inspectors will become available for work in many other directions.

17. In conformity with the instructions of the Government of India (G.O. No. 602, P.H., dated 30th March 1931), the age and sex death-rates are shown separately both for urban and rural areas in Statement IV. A summary is given. The total death-rates in the different age periods, calculated on the estimated mid-year population of 1932, has been given. This has been compared with the total death-rates, according to ages, calculated on the census population. The mid-year populations at the different age groups were calculated in the following way. The rate of increase of the total population between the date of the 1931 census and the estimated population at the middle of 1932 was calculated. This rate was utilized for increasing the population at each of the age-groups as suggested by the Public Health Commissioner in his letter No. 262/3829-41-S., dated 19th November 1932.

Age at death.	Death-rate per mille of population in each age group.				
	Rural areas.		Urban areas.		Total.
	Male.	Female.	Male.	Female.	
Under 1 week	74.47	80.75	64.53	50.63	73.68 59.91
Between—					
1 week and 1 month	32.29	27.24	35.15	28.31	32.54 27.33
1 month and 6 months	42.47	40.51	68.45	59.71	44.98 42.11
6 months and 12 months	42.35	42.49	43.89	41.85	42.48 42.44
Under 1 year	192.16	171.07	210.32	180.51	193.50 171.80
Between—					
1 year and 4 years	28.48	27.73	38.48	35.66	29.45 28.33
5 years and 9	6.99	7.10	7.20	7.79	7.01 7.15
10 "	3.00	3.06	4.63	5.34	3.13 3.23
15 "	7.66	9.40	6.19	9.95	7.63 9.15
20 "	7.41	9.23	9.85	12.47	7.66 9.51
30 "	9.95	12.21	13.30	14.32	10.26 10.55
40 "	15.34	12.89	21.47	15.66	15.86 13.11
50 "	28.37	23.15	38.45	27.34	27.31 23.50
60 and upwards	83.41	83.09	126.20	128.51	86.38 86.07
All ages	22.23	20.92	26.69	25.37	22.69 21.30

Note.—The death-rates for all age periods under one year have been calculated per mille of live-births.

From the above table it is seen that—

(1) The total death-rates in the different age-groups calculated on the estimated population are lower than those calculated on the census population. This emphasises the need for calculating the death-rates on the estimated populations.

(2) The total death-rate in all ages for both males and females is lower in rural than in urban areas.

(3) The female death-rate is in marked excess over the male death-rate both in urban and in rural areas, in the age periods 15 to 40 years, while in the remaining age periods the male death-rate is either in excess or is only slightly in defect. *The excess in female death-rate is attributed to the greater risk of death to which women are exposed during the child bearing ages. In England and the United States of America the male exceeds the female death-rate even in the age periods 15 to 40.

(4) The urban death-rate generally exceeds the rural death-rate. But in the first week of life the rural death-rate is appreciably higher than the urban death-rate. This is possibly due to the fact that a greater proportion of maternity cases receive skilled aid in towns. During the latter months of life of the child, city environment and the employment of the mother away from the home are detrimental factors to child life.

(5) The highest rates of mortality occur at both ends of life with the lowest rate in the age period 10 to 14 years.

These findings are in general accord with those of previous years.

18. The following table gives the number of deaths registered under the chief causes of death during the last five years:—

Diseases.	Deaths in					Increase or decrease in 1932 as compared with 1931.
	1928.	1929.	1930.	1931.	1932.	
Cholera ...	57,677	25,846	18,746	30,232	5,278	- 24,954
Dysentery and diarrhoea ...	76,836	75,587	76,815	83,838	80,410	- 3,428
Smallpox ...	7,418	9,708	8,025	4,660	5,363	+ 703
Plague ...	2,106	1,891	1,459	1,673	1,561	+ 498
Fevers ...	344,983	339,052	330,496	331,834	291,416	- 40,418
Respiratory diseases ...	90,012	90,159	89,510	93,222	94,312	+ 1,090
Deaths from child-birth ...	11,150	11,087	12,441	14,365	12,559	- 1,776
Other causes ...	490,662	484,212	508,280	513,348	501,095	- 12,253
Total ...	1,080,741	1,037,452	1,045,972	1,072,572	992,024	- 80,548

The large fall of 80,548 in the number of deaths is due chiefly to a fall in fevers, cholera, dysentery, diarrhoea and other causes.

GENERAL REMARKS.

Measures for improved public health largely depend on accurate records. Unfortunately our vital statistics are by no means complete due to the failure of registration of occurrences and to inaccurate recording of details. In spite of this deficiency I believe that this

Presidency can claim to possess the best vital statistics registration in India to-day. The Actuary to the Government of India on comparing the discrepancy between the enumerated population of each Province at the 1931 census and the population built up by the addition to the figure for the 1921 census of the yearly natural increase, discovered that the statistics of Madras Presidency were the best and that, in our case, there was an error of only $\frac{1}{2}$ per cent. Considerable improvement has been effected since the re-organization of the Public Health Department 10 years ago, while another step forward was taken during this year by centralizing the work in this office. The attainment of accuracy in registration is necessarily a slow process and can be achieved only with improved education of the masses.

HISTORY OF CHIEF DISEASES.

CHOLERA.

19. During the year under review there was a phenomenal fall in the mortality from cholera as compared with the previous eight years; there were 5,278 deaths against 30,232 in 1931.

The statement below gives the comparative statistics of deaths during the decennium 1923-32:—

Year.	Deaths from cholera.	Year.	Deaths from cholera.
1923 ..	5,169	1928 ...	57,677
1924 ...	51,971	1929 ...	25,846
1925 ...	44,815	1930 ...	18,746
1926 ..	24,407	1931 ...	30,232
1927 ...	35,384	1932 ...	5,278

An epidemic prevailed in the districts of Ramanad, Madura, Coimbatore, Trichinopoly, South Arcot, Malabar and Tanjore in the first quarter of the year as a continuation of the winter epidemic from the previous year, but, there was a steady decline in the succeeding quarters. By the end of July, all districts were practically free except Ganjam. The disease was imported from Puri after the Rathajatra festival; the epidemic prevailed till the end of October. Of the 5,278 deaths about 97 per cent occurred during the first half of the year and the Presidency was practically free from cholera during the second half.

On the occurrence of sporadic cases simulating cholera between July to December 1932, the Health Officers, who had been previously supplied with culture media, were instructed to send specimens of stools to the Director, King Institute, Guindy, for examination. Excluding Ganjam, 112 suspicious cases of cholera were reported from different parts of the Presidency. Bacteriological examination of as many of these as could be secured for examination revealed that they were not cholera.

It may be seen, from the above figures, that, in 1923, the total incidence of cholera was slightly less than in 1932 (5,169 against

5,278). A reference to the monthly figures for the two years shows that in 1923 cholera was more evenly distributed throughout the year than in 1932 during the latter half of which the disease was, as has been shown above, practically non-existent throughout the Presidency except in Ganjam.

	1923.	1932.		1932.	1933.
January	678	2,838	July	46	42
February	347	1,327	August	231	52
March	697	392	September	220	21
April	228	221	October	311	19
May	154	119	November	957	6
June	96	119	December	1,108	25

Judging from the statistics of the last fifty years such freedom from cholera throughout the greater part of the Presidency for an extended period of several months, has been unique. In the present state of our knowledge it is difficult to offer a satisfactory explanation for this rare phenomenon, but the question is under investigation. The only measure adopted, which was a departure from the normal, was the use of cholera bacteriophage at the important festivals of the Gōdāvari Pushkaram, at Bhadrachalam during the Sri Rama Navami, at Tiruvannamalai during the Krithigai festival, at Nagore during the Kandali, and at Chidambaram during the Arudra Darsanam festival. It was also used in those festival centres on the Cauvery river which were known to be endemic foci of cholera infection during past years. How far the adoption of this measure has been responsible for such freedom from cholera, it is impossible to gauge, because bacteriophage as an anti-cholera measure is still in its experimental stages. Phage was used both for prophylaxis and for treatment in the villages of Ganjam district, and a report has been recently received from the District Health Officer, Ganjam. It is under examination and a separate report will be submitted to Government.

Only 25 municipalities were affected, and 262 deaths were registered against 2,326 during last year. Among these municipalities, Coimbatore, Palghat, Madura, Trichinopoly and Dindigul bore the brunt of infection, recording 192 deaths. The other municipalities were entirely free from cholera.

The sub-joined statement shows the mortality from cholera during the different quarters of the year:—

Year 1932.	Deaths.
1st quarter	4,646
2nd do.	482
3rd do.	116
4th do.	34
	5,278

Careful statistical forecasts for cholera were prepared and the findings were corroborated by subsequent events.

The preventive measures adopted were, as usual, disinfection, chlorination of water-supplies, anti-cholera inoculations, the administration of bili-vaccine in some cases and educational propaganda. The total number of anti-cholera inoculations performed was 76,859. Bacteriophage was used as above mentioned. A detailed report on the results of the administration of bili-vaccine was sent to Government with this office letter R. No. 882-1/P.H., dated 10th April 1933.

In accordance with G.O. No. 1563, P.H., dated 22nd July 1932, selected Health Inspectors were given training in anti-cholera inoculation by their Health Officers. The Health Inspectors were also trained in the use of culture media, a sufficient supply of the media being kept in the offices of all District Health Officers and of some Municipal Health Officers.

To ensure the prompt adoption of preventive measures by those concerned, rules for combating cholera in rural areas were drawn up and submitted to Government. They were notified for public criticism in G.O. No. 1177, P.H., dated 31st May 1932. Final orders of Government on the subject are awaited.

I once again repeat the necessity for protected water-supplies both in towns and villages together with the proper disposal of night-soil. Such permanent measures must be adopted before we can see the disappearance of cholera and other bowel diseases in this Presidency. Our thanks are due to the excellent assistance we have received from the Director of the King Institute, Guindy (Lt.-Col. H. H. King, I.M.S.) and his staff, particularly in the preparation and supply of bacteriophage for field use.

SMALLPOX.

20. 5,363 deaths occurred from smallpox during the year against 4,660 deaths during the previous year, the rates being 0.12 and 0.1 per mille of the population for 1932 and 1931, respectively. There is a very slight increase of mortality under this head. The following statement shows the mortality from smallpox for the past ten years:—

Year.	Deaths from smallpox.	Rate per mille of population.	Year.	Deaths from smallpox.	Rate per mille of population.
1923 ...	24,434	0.6	1928 ...	7,618	0.2
1924 ...	18,810	0.4	1929 ...	9,768	0.2
1925 ...	20,478	0.5	1930 ...	8,025	0.2
1926 ...	10,937	0.3	1931 ...	4,660	0.1
1927 ...	7,781	0.2	1932 ...	5,363	0.1

The highest mortality was registered in the third quarter of the year. South Arcot showed the largest number of deaths (1,568), next Tanjore (671), then Ramnad (588), and Madura (536). The lowest mortality was recorded in Guntur (1), next Cuddapah (2), East Gōdāvari (7), and West Gōdāvari (8).

1,094 deaths from smallpox occurred in municipal towns giving a rate of 0.29 per mille against 428 in 1931 with a rate of 0.09 per mille. Of the 82 municipalities, 37 were entirely free from smallpox.

The rural towns registered 508 deaths with a rate of 0.19 per mille against 118 deaths with a rate of 0.05 per mille during 1931.

There was a severe epidemic of smallpox in almost every part of India, yet the Madras Presidency has not suffered to any great extent. This comparative freedom from a virulent epidemic of smallpox is certainly due to the thoroughness of vaccination. With compulsory re-vaccination it is hoped that in time smallpox will be completely stamped out. Re-vaccination has been pushed on with great vigour in all infected localities.

As per letter No. 1250, Health, dated 4th September 1925, of the Government of India a statement showing the vaccinal conditions of the 2,271 smallpox patients treated in Isolation Hospitals and Hospital Wards is given below:—

(a) Vaccinated in infancy as evidenced by one or more cicatrices ...	1,337
(b) Stated to have been successfully vaccinated in infancy but no vaccination cicatrix present ...	518
(c) Stated to be unvaccinated or unsuccessfully vaccinated and no vaccination cicatrix present ...	410
(d) Previously unvaccinated but vaccinated during the incubation period of smallpox ...	9
(e) Stated to have been successfully re-vaccinated ...	7
	2,271

PLAGUE.

21. The following table shows the total plague mortality and the seasonal distribution during the decade commencing 1923:—

Period.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
First quarter ...	5,380	2,275	1,360	893	602	678	657	590	401	434
Second quarter ...	920	101	79	182	121	89	85	102	30	128
Third quarter ...	3,268	370	126	388	742	423	373	275	353	412
Fourth quarter ...	2,562	1,236	419	690	992	916	686	492	289	587
Total ...	12,110	3,922	2,014	2,143	2,458	2,106	1,801	1,459	1,073	1,561

During the year under review, 1,561 deaths were recorded against 1,073 in 1931.

The rise in plague mortality was due to a sharp epidemic in Bellary district and to the increased prevalence of the disease in restricted areas of the districts of Madura, North Arcot, Salem and Coimbatore. In Ernad taluk of Malabar district, 12 attacks and 12 deaths of suspected pneumonic plague were reported. Bacteriological examination, however, did not confirm these cases as plague. The largest number of deaths was recorded in Madura district. The three municipalities of Vaniyambadi, Rodipayakkanur and Calicut were affected, recording 65, 51 and 19 deaths, respectively.

The area affected by plague in this Presidency borders on the States of Hyderabad, Mysore, Travancore and the Presidency of

Bombay. It is desirable that co-ordinated effort should be made by these authorities to combat this disease. To achieve this end, a Conference of the Directors of Public Health of Bombay, Mysore, Madras, and the Assistant Director of the King Institute, Guindy, Madras, was held during the year. The findings are in circulation and will shortly be submitted to Government. Such conferences are of the greatest value. The Travancore State have co-ordinated their efforts with this Government and at present experiments are in progress on the boundary. The Hyderabad State have taken up the plague problem vigorously in their State and soon we hope to be in touch with them for co-ordinated action against plague.

The chief preventive measures adopted were anti-plague inoculation and evacuation. A total of 84,742 inoculations was done during the year. Sun-disinfection for grains, unless carried out thoroughly, is of little value. This usually cannot be done, hence it was stopped.

In pursuance of G.O. Ms. No. 1563, P.H., dated 22nd July 1932, Sanitary Inspectors on plague duty were given the necessary practical and theoretical training and were employed on inoculation work. Owing to the reduction of allotment in the plague budget as a measure of retrenchment, the plague staff was much reduced. At the end of the year, the allotment was found insufficient and Government were requested to sanction a supplementary grant of Rs. 5,000. An account of researches into the epidemiology of plague is given separately under "research work" in a later section of the report.

FEVERS.

22. The mortality from fevers was 291,416 against 331,834 in 1931 with rates of 6.45 and 7.34 per mille, respectively, the quinquennial average being 8.00. The mortality was highest in the months of December and January and lowest in the months of April and May. Diseases such as influenza, malaria, enteric and pneumonia, are registered under fevers. In addition, there is a large proportion of deaths in this heading for which the causes of death are not correctly ascertained. It is therefore impossible to draw any definite conclusions from the high mortality rate under "fevers" registered in the cold months. The mortality was high in the districts of Ganjam (13.48), Vizagapatam (13.64), Gōdāvari East (9.84) and Kurnool (9.61). Large tracts of these districts are malarial; hence the high death-rate under "fevers" is probably due to this disease. The fall in fever mortality seen in Vizagapatam, Cuddapah, and Kurnool districts in comparison with the previous year, may be partially attributed to the free quinine distribution system now existing in these districts. As in previous years, Tanjore (2.07) registered the lowest mortality under this head.

In the municipalities of the Presidency 2,762 deaths with a rate of 2.64 per mille were registered under fevers, the figures for 1931 being 10,209 and 2.70, respectively, while the quinquennial average was 3.94. The mortality was high in Vizagapatam (6.93), Narasaraopet (6.05), Berhampur (6.01) and Tadpatri (5.94). Sixteen

municipalities registered low rates below one per mille.; Palamcottah registered the lowest mortality of (0.15).

The number of deaths registered under "fevers" in the rural towns for 1932 was 15,309 against 14,522 last year, the rates for the two years being 5.96 and 6.40, respectively.

RELAPSING FEVER.

23. No cases occurred during the year.

DYSENTERY AND DIARRHOEA.

24. The total mortality caused by this group of diseases in 1932 was 80,410 against 83,838 in 1931 and 76,815 in 1930. During the same years the deaths due to cholera were 5,278 in 1932, 30,232 in 1931 and 18,746 in 1930. The dysentery and diarrhoea group of diseases is not so spectacular in effect as cholera but the fact remains that this group is now causing more deaths every year and is responsible for a much wider range of suffering and incapacitation than even cholera. Within the last ten years the highest mortality from cholera was 57,677 in 1928, which is about one-third less than the annual mortality from dysentery and diarrhoea.

The highest mortality was registered during the months of January, December and August. The pollution of water-supplies following the north-east and south-west monsoons explains this high incidence during these months. Malabar recorded the highest incidence (7,420) followed by Coimbatore (6,907), Madura (5,134), North Arcot (4,994) and Tinnevely (4,578).

The total number of deaths in municipal towns was 11,085 giving a rate of 2.95 per mille compared with 11,579 deaths in 1931, a rate of 3.04 per mille. Tiruvannamalai (6.03), Narasaraopet (5.13) and Walajapet (4.41), registered high death-rates while Mayavaram (0.58), Chittoor (0.68), and Nandyal (0.84), returned low rates.

Attention to the fundamental principles of pure drinking water and proper nightsoil disposal alone can change this sad picture. For many reasons advance in this direction is all too slow!!

LEPROSY.

25. The anti-leprosy campaign continued under the direction of the Surgeon-General. This department has assisted in surveys and propaganda. The number of institutions for the treatment of leprosy rose from 85 to 239 during 1932.

Of the 53,497 lepers surveyed during 1930, 26,963 cases were declared to be under treatment.

As a splendid example of what local effort can achieve mention must be made of the leprosy campaign in Salem district. By the inspiration of Mrs. Todd (the Collector's wife), the number of clinics has increased from 5 to 31, and a sum of about Rs. 30,000 has been collected for leprosy relief work. The District Health

Officer of Salem has been closely associated with this campaign and it was he who inspired the First District Leprosy clinic in that area several years ago.

Government have agreed to the continuance for two years of the Special Leprosy staff under the Surgeon-General. This will help towards the extension and the further consolidation of the leprosy work already accomplished.

RESPIRATORY DISEASES.

26. The following table shows the mortality registered under respiratory diseases during the last ten years :—

Year.	Deaths from respiratory diseases.	Rate per mille of popula- tion.	Year.	Deaths from respiratory diseases.	Rate per mille of popula- tion.
1923 ...	55,951	1.4	1928 ...	90,012	2.2
1924 ...	64,782	1.6	1929 ...	90,159	2.2
1925 ...	74,591	1.8	1930 ...	89,510	2.2
1926 ...	85,602	2.1	1931 ...	93,222	2.1
1927 ...	81,277	2.0	1932 ...	94,312	2.1

94,312 deaths with a mortality rate of 2.09 were registered showing a slight increase in comparison with 93,222 deaths with a rate of 2.06 for 1931, the quinquennial average rate being 2.13. The mortality was high in the colder months of the year. The highest mortality was as usual registered in the Nilgiris (3.82), followed by Kistna (3.30), Madura (2.91), and Bellary (2.85).

In the municipalities, the mortality from respiratory diseases in 1932 was 19,160 (5.18 per mille) against 19,269 (5.26 per mille) in 1931. Madras (10.15), Cocanada (8.71), Madura (8.69), Bellary (8.13), and Kodaikanal (8.12) registered the highest rates. The lowest rates were returned by Tadpatri (0.71), Peddapuram (1.33), and Villipuram (1.34). These low rates are obviously due to incorrect registration.

The death rate from respiratory diseases in the rural towns was 1.70, against 1.62 in the previous year. Tuberculosis is not registered separately, consequently we are unable to assess the trend of this disease. Tuberculosis authorities in this Presidency claim that this disease is spreading very rapidly. Separate registration for tuberculosis is therefore desirable and was recommended in my last year's report.

RABIES.

27. The number of deaths registered was 538 (115 Urban and 423 rural) against 456 last year. A report on rabies and its treatment will be issued separately by the Director, Pasteur Institute, Coonoor.

OTHER CAUSES OF DEATH.

28. Nearly 490,000 deaths (49.2 per cent of the total mortality) were registered under "Other causes." The term "Other causes"

includes a large number of diseases and it is impossible to assess the relative share played by each. As "Other causes" contribute nearly fifty per cent of the total mortality of the Presidency it is really essential to have more detailed knowledge on the various diseases. The detailed vital statistical returns received from 15 municipalities with Health Officers, have been compiled together and are published as Annexure A to this report.

This statement may be regarded as a truer representation of facts than the figures submitted by the village headmen. Out of a total mortality rate of 27.48 per mille in these municipalities only 2.01 are shown in the group "All other causes."

EPIDEMIOLOGY.

29. *Cholera*.—For some years past forecasts have been attempted in regard to the probable trend of cholera incidence in this Presidency. For this purpose the Presidency has been divided into six groups of districts and graphs of epidemic indices, on the basis of trend of this disease for the past ten years, are being maintained for each of these groups of districts. Two forecasts were made in 1932, one in June and the other in October. Both of them anticipated that the Presidency would be wholly free from cholera for a period of at least three months subsequent to the forecasts. These forecasts have proved to be remarkably true. In fact, for the last fifty years the Presidency has never been so wholly free from cholera as in the period under consideration. Even the usual winter epidemics, which invariably prevail in the delta of the Cauvery and in the valley of the Tambaraparni, were absent this year. Since the close of 1932 there has been little cholera in the province.

30. *Smallpox*.—A similar graph of epidemic index for smallpox for the whole province was drawn up and the graph indicated that there was no likelihood of a decrease in the incidence of the disease in the near future. It yet remains to be seen to what extent the forecast will prove true. This was done in 1933 and a detailed report will be made in the annual report for 1933.

FAIRS AND FESTIVALS.

31. There were 585 festivals during the year, a majority of them being celebrated during the first half year. The District Health Officers supervised the important festivals, while the Health Inspectors were in charge of smaller festivals. As usual, the Municipal Health Officers supervised the festival arrangements in their areas while in municipalities having no Health Officers, the District Health Officers gave the necessary advice to the Chairmen.

The Taluk Boards and Panchayat Boards generally carried out the recommendations of the Public Health Department, but in some instances, sufficient funds were not provided by the local bodies. The festival arrangements generally in Ganjam, Tinnevely, and

Guntur districts were inadequate. In several festivals in the districts of Madura, West Godavari, Nellore, South Kanara and Tanjore, the recommendations of the Public Health Department were not carried out in full. The Collector of South Arcot enforced section 39 of the Local Boards Act during the Masimakham festival at Kilal. There is increasing evidence to show that local bodies are taking advantage of the provisions of section 128 of the Local Boards Act and section 157 of the Districts Municipalities Act for the levy of contributions from temple authorities towards adequate sanitary arrangements during festivals. Some difficulties have been experienced in the recovery of contributions levied on temples and an amendment has been suggested to the Hindu Religious Endowments Act; the orders of Government are awaited.

The great Godavari Pushkarani festival, which takes place once in twelve years, was celebrated at Rajahmundry and in a number of subsidiary centres in the East and West Godavari districts in July 1932. It lasted twenty days. Adequate sanitary arrangements were made during the festival by Committees specially formed for the purpose. This festival, which invariably caused huge outbreaks of Cholera in the past, ended without an epidemic. A detailed report was submitted to Government and this was recorded in G.O. Ms. No. 462, Public Health, dated 28th February 1933.

All the festivals in the Presidency during the year ended without any outbreak of epidemics.

With reference to G.O. No. 312, Public Health, dated 9th February 1928, regarding sanitary improvements to be made at perennial pilgrim centres, many of the local bodies have not taken any action during the year, on the plea of financial stringency. It is desirable that local bodies should take necessary action as soon as funds permit.

URBAN SANITATION—MUNICIPAL WATER-SUPPLIES.

32. (1) *Urban Sanitation*.—The sanitary condition of the municipalities leaves much to be desired. The number of public and private latrines is quite inadequate. In most municipalities public latrines are so badly constructed and so perfunctorily cleansed that the people cannot have a desire to use them. In contrast with this sad state I would draw attention to a number of flush-out sanitary latrines which were constructed by the Madura Municipality, which are working well. Municipal Councils should utilize their powers under section 146 of the District Municipalities Act to increase rapidly the number of latrines attached to private houses. In the case of the sparsely populated and outlying areas of a municipality, the question of providing bore-hole latrines, requiring the minimum attention, may well be considered.

The control of dangerous and offensive trades is another important duty for a municipality. Most municipal councils have failed to take any active interest. The model by-laws framed by the Government have not been adopted by most municipalities.

The newly introduced Food Adulteration Act gives wide powers to a municipality to prevent adulteration. These powers are only supplemental to those which the council already possesses under the Municipal Act for controlling the production and distribution of all articles of food to the public. While it is true that the enforcement of law in the absence of an educated public opinion is difficult for a democratic institution like the municipal council, yet the judicious enforcement of law is in itself a means towards the desired end of educating the public.

These remarks are being made in no spirit of carping criticism but for the purpose of inviting attention of all who are responsible for local government in their respective areas to the above facts. Failure to exercise these powers constitutes the real reason for insanitary conditions of the urban areas, and for the high rates of morbidity and mortality, which are largely preventable and should be prevented.

(2) *Municipal Water-supplies.*—The quality of the protected water-supplies in the municipalities continued to be satisfactory during the period under review. Of the 82 municipalities, 37 have protected water-supplies. Of these, three had new water-supply system installed in 1932.

RURAL SANITATION CAMPAIGN.

33. Rural improvement is one of the outstanding public health problems for India. The prevention of soil pollution by indiscriminate defecation and the provision of adequate and safe water-supplies for villages constitute the foundation for building up national health. During the past few years the Rural Sanitation Campaign has been directed towards the evolution of a cheap type of village latrine to meet the problem of soil pollution. With the formation of the Village Development Fund there is a source of income for village improvements. The wise expenditure of this fund should enable local authorities to bring the promise of a healthier and happier life to the homes of the people. At the beginning of the year, the field staff for the work consisted of six Rural Sanitation Units and two School Units. The two School Units were later abolished as a measure of retrenchment. The Rural Sanitation Unit in Chingleput district was transferred to Salem towards the end of March and the Unit in Malabar to South Arcot in April. Units were working in Madura, Coimbatore, Salem, South Arcot, Kistna, and Vizagapatam districts at the close of the year.

The chief activities of the Campaign were:—(1) Intensive educational propaganda on hookworm and the dangers of soil pollution, (2) mass treatment of hookworm infection among village school children, and (3) provision of latrines in villages.

Educational Propaganda.—Three hundred and seventy Cinema shows, 637 lantern lectures and 874 talks with illustrative charts were carried out during the year, the total audience being about

472,137 persons. 52,826 pamphlets were distributed at these meetings. The cinema equipment was loaned to two municipalities, two District Boards and to one voluntary association. The Rural Sanitation Department took part in the Health Week Celebrations of the Madras City. In Madura, the District Health staff concentrated their activities on the dangers of soil pollution during their Health Week celebrations. They printed and distributed three posters and eleven pamphlets on this work.

Mass Treatment.—164,588 treatments for hookworm were given during the year, of which 149,730 were given in the medical institutions of the Presidency and 14,858 by the rural sanitation field units.

Latrine Provision.—During the year, 1884 bore-hole latrines were constructed and 66 were either reconstructed or repaired. The progress of this work has been most satisfactory in the Madura district where, owing to the enthusiasm of Mr. Foulkes (President, District Board), the District Board has spent a large sum of money within the last few years in providing such latrines for village life. The squatting slabs are now being supplied free of cost to house owners, to encourage them to construct latrines for themselves in their homes. The bore-hole latrine is an ideal latrine for home use. As a public latrine, improvements are necessary and these are under investigation now. The following local boards allotted the amounts shown against each for soil sanitation:

Names of districts.	Amounts allotted by local bodies (District Boards, Taluk Boards and Panchayat Boards).	Names of districts.	Amounts allotted by local bodies (District Boards, Taluk Boards and Panchayat Boards).
	RS.		RS.
Madura	28,200	South Arcot	5,275
Coimbatore	10,167	Ramnad	3,250
Kistna	1,210	East Gōdāvari	5,958
Salem	11,475	West Gōdāvari	750

When the present financial position improves, there will, I am sure, be a greater response on the part of the local bodies for this work.

34. *Research.*—The researches into the longevity of hookworm in man and the efficacy of the drugs used for treatment were continued. The results obtained show that the hookworm has a longer life in the human intestine than that reported by Dr. Asa Chandler and other workers. A detailed report of these experiments, started in 1926 by Dr. Kendrick, will be submitted later.

The following figures show the work done by District Boards and Municipalities for combating hookworm infection apart from that already mentioned under Unit work:—

Propaganda—

Total number of cinema shows	342
Total number of magic lantern lectures	2,659
Total number of lectures without magic lanterns	6,479
Total audience	972,516

Treatment—

Total number of treatments given ... 178,132

Soil Sanitation—

Number of public latrines constructed ... 2,678

Do. repaired ... 432

Do. private latrines constructed ... 8,886

Progress of soil sanitation improvement generally is slow and much educational work remains to be done before the pace can be hastened.

MALARIA.

35. The abolition of the temporary malaria establishment, as a measure of retrenchment, was given effect to in February 1932. To continue the malaria policy of Government, one specially trained Reserve First Class Health Officer was appointed as Malaria Officer. On account of the economic depression anti-malarial operations were almost entirely suspended in municipal and rural areas except in Vizagapatam municipality, Rameswaram island and in the villages of Humma and Chatrapur in Ganjam district. Impetus was given to the anti-malarial operations carried on in the Vizagapatam municipality by an attempt at co-ordinating effort between the municipality, the District Board, the Bengal-Nagpur Railway and the Harbour authorities. A complete scheme was made for the municipal area at an estimated cost of Rs. 13,000 towards which Government have been asked to contribute a grant of Rs. 4,000 per annum and their decision is awaited.

There was evidence of an increase in indigenous malaria in Coonoor as shown by the fact that the number of cases treated in the Government Hospital at Coonoor in 1930 was 508, in 1931 it was 1,392, and in 1932, 2,253. During the year under report, an estimate for the sub-soil drainage of the more important channels and swamps was prepared and is now under technical scrutiny.

36. Although the organized anti-malarial campaign in the Vizagapatam Agency was discontinued as a measure of retrenchment since December 1931, Government were pleased to sanction the continuance of minor anti-malarial measures through the Agency Sub-Assistant Surgeons in charge of dispensaries and under the direction of the Agency Civil Surgeon. These operations are in progress in Koraput, Pottanghi, Padwa and Chintapalli. A full time Health Inspector is placed in charge of these operations at Krishnadevipeta and Jeypore. This revised scheme was started only with effect from May 1932, so that there was a break in this work for about 5 months. This greatly affected the progress so far made. The work done has been best in the village of Krishnadevipeta. The spleen-rate which was 18 per cent in 1929 gradually fell to 8 per cent in 1931 but showed a rise to 12 per cent in 1932 on account of the break in the operations; but, with the revival of the operations in

May 1932, it has come down to 6 per cent. Since the only anti-malarial operation carried out in this village consisted of thoroughly parisgreening the breeding grounds, the above figures show the great need for the continuity of such operations. Its success was in no small measure due to the activity of the Health Inspector who has been stationed there continuously from 1929 to date, except when the operations were suspended. Such measures can only bear fruit if the right type of man is employed who does his work conscientiously.

A complete scheme of sub-soil drainage for all the breeding grounds in Koraput was estimated at a cost of Rs. 38,900. Government gave sanction to this work but later held it over for lack of funds.

37. The scheme of free distribution of quinine was revised with effect from 1st April 1932 and was extended to new areas which were found to be malarious by surveys. The firka group of villages is now made the unit and altogether thirteen districts have now the benefit of this scheme. The steady fall in the deaths due to fevers noticed in the previous years was even more marked in the year under report especially in the case of Cuddapah and Kurnool districts. In South Kanara, the deaths were nearly the same in 1930, 1931 and 1932. In Bellary, however, the deaths due to fevers showed an increase over those in 1931. This is due to an increased incidence of malaria during the year under report, which is indicated by the fact that, although the number of villages in which the scheme of free distribution of quinine was reduced to 41 as against 106 in the previous year, the number of patients treated was very much higher than in the previous year.

In the revised scheme, provision has been made for the recording of results by the Public Health staff and the results of its working were submitted to Government.

The following table shows the decline in deaths from fevers for districts where quinine is distributed :—

Districts.	Deaths due to fevers (Numerator—Actual deaths).			
	1929.	1930.	1931.	1932.
Cuddapah ...	14,168 1,000	12,794 903	10,771 760	8,458 597
Kurnool ...	18,091 1,000	13,300 735	10,637 571	9,851 544
South Kanara ...	11,236 1,000	9,033 804	8,947 793	9,128 812
Bellary ...	5,938 1,000	4,848 816	3,940 663	5,086 857

MATERNITY AND CHILD WELFARE.

38. *Maternity Work.*—The number of registered midwives in the Presidency was 1,751, an increase of 238 over the figure for the previous year. As shown in my last year's report, there are about 1,472,280 births in this Presidency per year. If each trained midwife performed 150 cases per year, yet 1,209,630 maternity cases would fail to receive skilled attention. The supply of qualified midwives is at present a slow process. The pace could be desirably hastened if all women's hospitals in this Presidency, both Governmental or Missionary, were recognized as training centres. So far Government have only permitted the following hospitals to train midwives outside Madras City:—

- (1) The Headquarters Hospital, Tanjore.
- (2) Women and Children's Hospital, Vizagapatam.
- (3) Lady Goschen Hospital, Mangalore.
- (4) St. Joseph's Maternity Hospital, Nellore.
- (5) The Headquarters Hospital, Guntur.

The training of these midwives should be directed more and more towards domiciliary work. This is not at present a recognized part of the training.

The most important point of all, however, is the necessity for careful and adequate supervision of trained midwives after qualification. With the exception of those working in institutions, it can be said that there is no supervision. This results in a great deterioration of the standard of work. The appointment of women maternity supervisors for districts is essential and should be undertaken as soon as finances permit.

The registration of midwives which already exists under the Nurses and Midwives Act must be regarded only as a start in the right direction. Supervision of their equipment and duties, with sympathetic encouragement and advice to these women field workers, by trained supervisors who really know how to do this work, would greatly improve the general standard of midwifery throughout this Presidency. This does not exist to-day in the measure. The mere training of midwives and passing them on to public bodies alone cannot possibly solve the problem of improved maternity work. This position could be achieved if well-trained health visitors were employed both as maternity supervisors and welfare workers. It is further desirable to get a socially better type of women to take up this work of supervision.

39. *Child Welfare Work.*—Child welfare work is still in its infancy. The financial condition of local bodies and of the Local Government renders progress difficult. In G.O. Ms. No. 1760, P.H., dated 17th August 1932, Government informed local bodies that expenditure on Maternity and Child Welfare work was a legitimate charge on the Village Development Fund. The District Boards of Salem and Coimbatore have started some welfare activities and Chingleput District Board has submitted a proposal for the approval of the Government. The District Boards of North and South Arcots have made some provision in their budgets for 1933-34. The Government sanctioned

a recurring grant of Rs. 6,000 to the provincial branch of the Indian Red Cross Society, Madras, for a school to train health visitors. This school trained six health visitors and two women doctors during this year. These are at present employed by the municipalities of Berhampore, Tanjore and Salem, and by the District Boards of Salem and Coimbatore.

The number of institutions styled as Child Welfare centres outside Madras City decreased from 127 in 1931 to 117 in 1932. The decline was due to the closing down of centres owing to financial stringency. Of this total 58 are in rural areas, and 59 are in municipalities. 68 centres are run by local bodies and 49 by voluntary agencies, many of which receive contributions from the local bodies.

Unfortunately, it has not yet been recognized that the essence of good child welfare work lies in its educational value and regrettably we do not yet possess trained women workers in sufficient numbers who really understand the basic principles of this work. This difficulty can only be solved by two methods, (a) an intensive piece of really good rural child welfare work to demonstrate methods and (b) the training of an adequate supply of workers of good social standing in the newly started Health School in Madras.

40. *Vital Statistics.*—The material mortality rate for districts, exclusive of municipalities, ranges from 15.1 per 1,000 births in Tanjore to 4.1 per 1,000 births in Vizagapatam. The same districts showed the highest and lowest rates last year, i.e., 19.57 and 4.34, respectively. In the case of municipalities, the rate varies from 38.8 for Cuddapah to 4.4 in the case of Saidapet. These statistics are far from correct and it will only be by the introduction of a properly constituted welfare work staff under every local authority that the collection of accurate statistics can be made possible. For rural areas the infantile mortality rate is 181.82 and for municipalities it is 195.02. The infantile mortality rates for the whole Presidency for the past 10 years is given below:—

Year.	Rate.	Year.	Rate.
1923	173.7	1928	184.2
1924	179.2	1929	179.5
1925	180.9	1930	185.7
1926	189.5	1931	186.6
1927	175.4	1932	182.9

From these figures it is clear that the existing institutions styled as Child Welfare centres have not thus far made any headway against infantile mortality in this Presidency. Ardent supporters of birth control will of course advocate this measure for reducing the infantile mortality. However much this measure may or may not be desirable, the fact remains that a genuine Health Educational campaign for the benefit of the women and children of this Presidency is required. This can only be achieved by trained women workers possessing a true self-sacrificing spirit for this difficult task.

For more detailed information regarding statistics reference may be made to Annexures D and E.

MEDICAL INSPECTION OF SCHOOLS.

41. The medical inspection of schools is still held in abeyance owing to financial stringency. Government have a proposal under consideration now.

EDUCATIONAL HEALTH PROPAGANDA.

42. For any Public Health Department to succeed in health work improved public opinion and co-operation with the "Man-in-the-Street" are essential. Health education should aim not only at teaching an individual the principles of healthy living but it should also enable him to recognize that his own well-being is intimately bound up with that of his community. Alas, this is a difficult problem in India with existing social conditions.

In health education, different grades of intelligence must be catered for, from the illiterate peasant of the villages to the well-educated resident of the large cities. Educating villagers in Public Health problems is no easy task. The best method is by simple friendly talks with, if possible, visual demonstrations. The cinematograph, the projection lanterns and coloured charts, all play a part in this campaign of education. There are, at present, several portable cinema equipments in the districts. Suitable health films are stocked in the propaganda section. These are supplied either on sale or on hire to the local bodies and voluntary associations. Foreign films or films from other parts of India are not suitable. A film on cholera with the title "The man who was afraid" was made during the year and another film on Leprosy is under preparation.

Three new sets of lantern slides were made during the year on child welfare and tuberculosis.

A novel feature this year was the introduction of the "Puppet show" as a means for health propaganda. It has been found very effective and is capable of further development.

Fifteen lithographic colour posters were prepared and issued during the year. The subjects dealt with were:—

Posters.		Posters.	
Cholera ...	10	Rural sanitation ...	1
Malaria ...	2	Anti-rabic treatment ...	1
Water-supply ...	1		

The Health Week affords an opportunity for intensive propaganda and it was celebrated throughout the Presidency as usual. A separate report on these celebrations will be submitted to Government. The Department took part in the Medical and Sanitary Exhibition organized by the All-India Medical Licentiate's Association at the South Indian Athletic Association grounds, during the park fair and also in the exhibition organized during the Pushkaram festival at Rajahmundry.

Regular weekly health bulletins were published in the local newspapers. Some interesting articles on Public Health were also published in the newspapers from time to time.

On the whole, 33,462 lectures, 102,661 short talks, 14,795 magic lantern demonstrations and 520 cinema shows were given during the year to an aggregate audience of seven lakhs of people while 886 health dramas, and 1,189 health exhibitions were conducted.

Health propaganda in municipalities generally has shown much improvement this year in comparison with previous years, but the following 6 municipalities failed to report on any propaganda work during the year:—

- | | |
|----------------|-----------------|
| 1. Anakapalle. | 4. Ongole. |
| 2. Chittoor. | 5. Tirupattur. |
| 3. Kumbakonam. | 6. Vaniyambadi. |

43. *Temperance and Propaganda.*—In G.O. Ms. No. 126, P.H., dated 19th January 1932, funds were placed at my disposal for donations to bona fide non-official associations engaged on Temperance Propaganda. Applications were received from many associations. These were scrutinized and a total grant of Rs. 2,366 was given to the following associations:—

	Rs.
Adi-Andhra Association, Elhoro	50
Kanchi Prohibition Association, Conjeevaram	11
Madras Social Service League	118
International Order of Good Templars, Madras	96
Rural Reconstruction Centre, Satyamangalam, Coimbatore District	500
Village Organization Centre, Mayanur, Trichinopoly.	500
Temperance Association, Shiyali	85
Sree Sujana Samajam, Anakapalle	70
International Order of Good Templars, Ootacamund.	400
Women Christian Temperance Union, Madras	500
Rural Reconstruction Centre, Lepakshi	15
Ramanad District Union, Sivaganga	21
Total	2,366

The financial statement required in G.O. Ms. No. 743, P.H., dated 20th March 1929, is published as Annexure C to the report.

Educational propaganda is essential if Government and Local Bodies wish to broadcast the desire for "Good healthy living."

Public opinion must be secured for this noble task.

PUBLIC HEALTH ADMINISTRATION.

44. The law relating to public health administration is spread over many enactments and it is desirable that all of them should be codified into a single Public Health Act. The Government have accepted this suggestion and have stated that the question should be taken up after the introduction of the Constitutional Reforms.

The year under review witnessed the insistence on the part of a municipal council to appoint its own Health Officer under section 72 of the Municipal Act. This led to the Government asking for legislative sanction to amend the respective sections in the District Municipalities and Local Boards Acts, whereby the power of appointment, transfers and disciplinary action in the case of all Health Officers would vest with the Government. These amendments have now become law. It is felt that the removal of this state of uncertainty as regards security of tenure for members of the Public Health Department during the last six or seven years, will make for greater contentedness and efficiency in the service.

VACCINATION.

(This section refers to the official year 1932-33.)

VACCINATION IN DISTRICTS.

45. The following statement gives the total number of vaccine operations performed during 1931-32 and 1932-33 by all agencies:—

Year.	Primary and Secondary vaccination.	Re-vaccination.	Total.
1931-32	1,508,024	597,813	2,105,837
1932-33	1,406,717	1,352,558	2,759,275
Increase or decrease	-101,307	+ 754,745	+ 653,438

The fall in the number of primary vaccinations is chiefly due to the reduction in the number of unprotected children from thorough vaccination in previous years. The re-vaccinations have risen markedly with the introduction of compulsory re-vaccination and with a greater prevalence of the disease.

The number of vaccine operations done in rural areas of the Presidency during the year under report is 2,262,475 which shows an increase of 411,440 when compared with the previous year. Malabar heads the list with 187,874 operations and South Arcot comes next with 144,564.

The number of children under one year of age successfully vaccinated is 617,371 as compared with 684,443 in 1931-32. The percentage of successful infantile vaccination to total births varied from 26.0 in Ramnad district to 63.8 in Madurai district.

On an average 35.6 persons were successfully vaccinated during the year for every thousand of the population. This figure is highest in the Nilgiris with 61.6 per mille and North Arcot is next with 40.8 per mille. Tanjore, Salem, Vizagapatnam and Cuddapah have rates below 30 per mille.

The average number of persons vaccinated by each vaccinator is 3,540. The outturn per vaccinator is highest in South Arcot district with an average of 5,698 persons vaccinated by each

vaccinator and Tinnevely comes next with 5,355 persons per vaccinator. In Annamapur, Bellary, Cuddapah, Ganjam, Kurnool, The Nilgiris, Salem and Vizagapatnam the outturn per vaccinator is less than 3,000.

The new rules issued in G.O. No. 349, P.H., dated 18th February 1932, to enforce vaccination and re-vaccination have not been brought into force in most of the local board areas because the Taluk Boards concerned have failed to notify the areas to which these rules shall apply as required in Rule 2 of the above Rules.

Vaccinators are taluk board servants; and the District Health Officers frequently find it difficult to exercise proper disciplinary control over them. In some cases there is considerable disparity in the pay and travelling allowances of vaccinators employed by different taluk boards in the same district. These factors tend to interfere with the efficiency of vaccination work generally. It would therefore be a great improvement if the vaccination staff were centralized under each district board. A proposal on these lines will shortly be made to Government.

VACCINATION IN MUNICIPALITIES.

46. The total number of vaccine operations performed in the 82 municipalities is 468,010 showing an increase of 234,360 when compared with the previous year. The increase is mainly under re-vaccination.

83,191 children under one year of age have been successfully vaccinated during the year as compared with 84,196 children in the previous year. The percentage of infantile vaccination to total births varied from 30.0 in Chittoor Municipality to 100.0 in Sivakasi.

The rate of successful vaccinations per mille of population ranged from 25.0 in Palakole to 467.7 in Kodaikanal. Cannanore, Chidambaram, Gudiyattam and Pollachi had rates below 30 per mille.

47. The vaccination success rates obtained during the year are classified in the following table according to the agencies by whom the vaccinations were performed:—

Agencies.	Number of successful vaccinations.			Percentage of success.		
	Primary vaccination.	Re-vaccination.	Total.	Primary vaccination.	Re-vaccination.	Total.
Local Fund vaccinators	1,127,888	343,349	1,471,237	98.5	89.7	73.2
Government vaccinators	28,118	1,540	29,658	98.1	92.5	90.2
Municipal vaccinators	131,112	87,062	218,174	99.5	94.4	95.1
Cantonment vaccinators	5,114	2,679	7,793	95.4	40.3	85.4
Dispensary vaccinators	740	809	1,549	99.3	67.7	83.4
Medical subordinates	109	4,518	4,627	57.7	49.9	51.2
Railways	2,633	8,302	10,935	57.1	47.5	68.6
Total	1,295,209	452,509	1,747,718	98.6	88.8	70.3

48. Below is an abstract of the vaccination staff employed by the various agencies during the year.

Year.	Health Inspectors.	Vaccinators.			Total.
		I Class	II Class	Probationary.	
1932-33	278	232	586	21	839
Increase or decrease compared with 1931-32	-7	-6	+35	-5	+24

The number of Health Inspectors has been reduced as a measure of retrenchment.

There is a further reduction in the number of probationary vaccinators and it is hoped that this class will soon vanish. The taluk boards have a tendency to replace I class vaccinators by II class men inasmuch as epidemic diseases control is now a charge on the District Board. Owing to the prevalence of smallpox, several temporary vaccinators were employed; this accounts for the increase under II class men.

49. An abstract of expenditure incurred for the vaccination establishments employed by the various agencies is given below:—

Establishments.	Total expenditure.		Average cost of each successful case.	
	1931-32.	1932-33.	1931-32.	1932-33.
Rural areas—				
Government establishment—				
Vaccinators and health inspectors.	RS. 2,02,000	RS. 1,78,800	RS. A. P.	RS. A. P.
Local Fund *	3,85,900	3,92,100	...	...
Total of rural areas	6,87,900	5,70,900	0 6 2	0 6 1
Municipal	1,21,600	1,00,000	0 12 0	0 7 0
Cantonment	4,700	5,200	0 10 0	0 10 8
Total	7,14,200	6,76,100	0 7 3	0 6 2

* One-third of the expenditure on the establishment of health inspectors is debited to vaccination.

The cost of successful vaccination for each person varied from As. 4-8 in Tinnevely district to As. 14-2 in the Nilgiris. As regards municipalities the cost ranged from As. 1-11 in Sivakasi to Rs. 1-5-8 in Binulipatam.

The low cost of As. 1-11 in Sivakasi municipality is due to the combined appointment of Sanitary Inspector and Vaccinator for the major portion of the year. A separate vaccinator was appointed only at the end of the year.

50. The number of vaccination cases inspected by the District Health Officers ranged from 434 in Cuddapah to 7,714 in Malabar. Five District Health Officers inspected less than 1,000 cases, eleven inspected between 1,000 and 2,000, four between 2,000 and 3,000, three between 3,000 and 4,000 and two above 7,000.

In the case of municipalities, eighteen Health Officers inspected less than 75 per cent of the vaccinated cases. In towns having no Health Officers the number of medical officers who inspected less

than 75 per cent was 10. As regards vaccination verification by Health Inspectors, the prescribed minimum of 85 per cent has not been reached in 16 ranges. Suitable action has been taken against the concerned subordinates.

51. As usual, routine vaccination was suspended during the hot weather months. The off-season was utilized for intensive birth and death verifications. The health staff detected 2.70 lakhs of unprotected cases during these enquiries against 2.53 lakhs during last year. Over 20,000 unprotected children were discovered in Coimbatore, Guntur, Raichur, Tanjore and Tinnevely districts, over 15,000 in East Godavari, Madura and South Kanara districts and over 10,000 in South Arcot, Chittoor, Ganjam, West Godavari, Kistna and Kurnool districts.

A feature of this year has been the reduction of vaccination insertions from four to two with a view to reduce the general and local reactions and thereby increase the popularity of vaccination.

INDUSTRIAL HYGIENE.

52. Industrial hygiene is closely associated with town-planning. The failure to organize the growth of industrial towns in England and other countries on proper scientific lines has resulted in the creation of extreme insanitary conditions. These mistakes are now being rectified at considerable expense to the tax-payer. In this Presidency, with the introduction of cheap electric power, petty industrialism is rapidly spreading. The lessons which have been learned at great cost by industrial nations of the west should be borne in mind by all local authorities, if similar extravagances are to be avoided at a later age.

Five years ago Government instructed local bodies (G.O. No. 1119, P.H.; dated 7th June 1927) to set apart separate areas for industrial development and not to allow construction of new factories outside these areas. Only a few local authorities have acted on this order. The local bodies have also statutory powers to control factories within their areas of jurisdiction. It is not uncommon to see a new mill built without even formal application for permission, and in some instances sanction has been accorded against the advice tendered by the local health experts. Local authorities should stress the necessity for careful industrial development if unnecessary expenditure is to be avoided for the future generations. Reference might well be made to the excellent annual report of the Director of Town-planning for 1931-32 on this subject, which has been well set out by Mr. Dann.

In order to encourage electrical development the Government permitted, under certain conditions, the installation of factories having engines of 15 h.p. and less, run by electricity, outside the industrial area.

During the year under report, Health Officers inspected 549 factories under the Indian Factories Act.

MINES.

53. In accordance with G.O. No. 886, P.H., dated 27th July 1931, the following resumé from the report of the Director of Industries is included in this report:—

Mining continued in the districts of Cuddapah, Kurnool, Nellore, The Nilgiris, Trichinopoly and Vizagapatam. In Bellary the mines did not work.

The Health of the employees in the mines was satisfactory. No epidemics occurred at any of the mines.

FOOD ADULTERATION ACT.

54. During the year the Act was extended to Salem Municipality. Samples were received regularly from Madras City, 16 Municipalities and Mettupalaiyam Union. 3,441 samples were received, of which 1,195 were from the Madras City. 1,437 samples were found to be adulterated.

On the whole there is a welcome change in the attitude of the magistracy towards the offences under the Madras Prevention of Adulteration Act. The fines now imposed by many of the Courts are likely to have a deterrent effect on food adulteration.

A separate analyst for Madras City has been trained under the Public Analyst and the Corporation will have their food analyses done by their own Analyst from 1st April 1933. Further extension of the Act to more areas is desirable in view of the fact that Government has now revised the scale of charges for this branch of work.

PORT HEALTH ADMINISTRATION.

55. The Port Health Administration of the Presidency, transferred to this department from 1st January 1932, has been satisfactory.

To prevent the spread of smallpox from India to other countries by passengers from India, the Government of India suggested in their letter No. 519-H (G), dated 15th/17th March 1932, the alteration of regulations so as to provide facilities for the issue of vaccination certificates by authorized registered medical practitioners.

The following procedure was considered suitable so far as this Presidency was concerned:—That all first and second-class passengers might be required to produce certificates of vaccination from any registered medical practitioner or District Medical Officer or Civil Surgeon or District Health Officer or Municipal Health Officer. In all other cases, namely, crew, emigrants, pilgrims, and deck passengers, only the Port Health Officer should be authorized to certify for vaccination. It was also considered that re-vaccination every three years would be unnecessarily inconvenient

for passengers going to England frequently and the adoption, therefore, of a period of seven instead of three years was recommended. The decision of the Government of India is awaited.

A proposal was submitted to Government that Municipal Health Officers employed as Port Health Officers might be allowed consulting practice on board ships for cases of emergency. Government did not accept this proposal.

In March 1932 the Office International d'Hygiene Publique, Paris, suggested the use of Standard Sanitary declarations by wireless before the arrival of ships at ports and the Government of India agreed to the adoption of this system at the Port of Madras, on a voluntary basis with effect from 1st July 1933. Steamship Companies have been requested to give effect to these proposals.

THE CAUVERY-METTUR PROJECT.

56. The health of the camp during the year under review was satisfactory, an indication of which may be seen in that the year 1932 recorded the highest birth-rate for the past seven years (39.6 per mille) and the lowest death-rate for the same period (21.1 per mille). This camp has an efficient sanitary staff, a protected water-supply, adequate conservancy arrangements and an infectious diseases hospital.

Nearly half the population live in buildings provided by Government and the other half in thatched huts erected by themselves. The main kacha camps are provided with water-supply and latrines and are protected from malaria. The malaria control work was particularly good during the year.

EPIDEMIC DISEASES.

57. *Cholera*.—Except for two imported cases no other cases occurred.

Smallpox.—Compared with the previous year, there was a large incidence of smallpox. There were 80 attacks and 11 deaths at the Headworks, all of these being imported cases. Prompt isolation with intensive vaccination throughout the area stopped the spread of the disease. In the rural areas consisting of 12 villages 131 attacks and 29 deaths occurred. Partly owing to the failure of the village headmen to report the outbreak of the disease promptly and partly owing to the stubbornness of the villagers in resisting the enforcement of vaccination, preventive measures could not be carried out with the same thoroughness as at the Headworks. However, with influence brought to bear on the village munsifs, for which the authorities of the Revenue Department heartily co-operated, the disease was brought under control.

Plague.—There was no plague during 1932.

Malaria.—There was a considerable decrease in the incidence of Malaria in 1932, the total number of cases being 345 against 693 in 1931. A comparison of the spleen-rates shows that, in 1932, the controlled area had a spleen-rate of one per cent, while the neighbouring uncontrolled villages showed a rate ranging from 15 to 32 per cent. The great reduction in the incidence of malaria was due to the effective malaria control. The progressive success of the anti-malarial operations may be judged from the fact that in 1929 the spleen-rate was 25 per cent, in 1931, 3.7 per cent and in 1932 only one per cent. Compared with 1931, the additional measures adopted in 1932 were (1) the more extensive use of paris-green, (2) the introduction of gunny bag thattis soaked in crude oil for controlling streams, (3) the introduction of tinfloats with cotton swabs soaked in crude oil for treating pools, (4) the use of Covell's bags at various places to collect adult mosquitoes for identifying them, and in the case of the carrier varieties, for dissecting and examining them. The expenditure has been steadily kept down, in spite of the increasing efficiency of the anti-malarial operations, the expenses for 1932-33 being about Rs. 12,000, as compared with Rs. 13,125 for 1931-32 and Rs. 15,291 for 1930-31.

The success of these operations was in no small measure due to a specially trained Second-class Health Officer who was entrusted entirely with this work. Unfortunately he had to be withdrawn at a later stage.

SANITARY WORKS (CIVIL).

58. The following is a summary of the statement furnished by the Sanitary Engineer:—

(a) **Water-supply**—(i) **Municipalities.**—New water-supply works were completed and brought into operation during the year in Tuticorin, Palni and Cuddalore raising the number of completed protected water-supply systems in municipal towns to thirty-seven. Improvements for already existing supplies were in progress in eight of these towns. In seven other municipalities new water-supply works were in progress.

(ii) **Rural Areas.**—No new water-supply scheme was completed during the year. The Chodavaram water-supply scheme remained in abeyance. Plans and estimates were prepared for the three towns of Tiruvallur, Sembiam and Penukonda and investigations of schemes for Mettupalaiyam, Cumbum and Dhanushkodi remained for consideration.

(b) **Drainage.**—No new major scheme came into operation during the year. The construction of intercepting sewers in Salem and Bezvada was continued. Two more schemes for Tirupati and Coimbatore were sanctioned for execution piecemeal and as funds permitted. Plans and estimates for Srirangam drainage were completed and were under preparation for five other towns.

In rural areas investigations at Madanapalle and Paramakudi were completed. The former Panchayat Board was however unable to take up the scheme.

RESEARCH WORK.

59. Field researches into the epidemiology of plague were continued by Dr. P. V. George, Research Health Officer, in the Cumbum Valley of Madura district. The Indian Research Fund Association assisted financially. Investigations were made into the recrudescence of plague from season to season, the transmission of infection from place to place and on the value of different plague-preventive measures.

(1) From his experience and observations there is no evidence that chronic or resolving plague lesions in rats of the Cumbum Valley may develop into acute plague during the subsequent plague-season.

(2) The results of about 150 experiments carried out in plague infected houses, 31 of which were done during the non-plague season, suggested the possibility that rat fleas surviving in the rat-burrows, even apart from rats, might be the off-season reservoir of plague. Another experiment performed in a controlled house showed that some fleas, under conditions of strict starvation, remained infective up to a period of 63 days, thus adding further support to the previous suggestion. This experiment is of great importance and is under repetition several times before any definite conclusion can be drawn on the solution of this vexed problem of the recrudescence of plague.

(3) The use of cyanogas as an anti-plague measure has been investigated by him, and the results achieved so far indicate that cyanogas fumigation is likely to become a reliable plague-preventive measure, particularly in endemic areas such as Cumbum Valley. These experiments are by no means complete.

(4) He has conducted monthly flea-surveys from the commencement of the investigation. These show that there is a preponderance of *Cheopsis* fleas along with each epidemic and that the *Astia* flea plays only a passive role.

(5) He has examined over one thousand wild rodents for plague. Acute plague was found in one *Gerbillus* and in one field-mouse, while one *Gunomys* showed scars on the spleen with adhesions. These few instances suggest that infection may be spreading from house-rats to field-rodents, but there is no reason to believe that the latter are at present the off-season reservoirs of plague in the Cumbum Valley.

(6) He has noted that the fleas collected from the field rodents are mostly *Astia* fleas (1,292 out of 1,320).

(7) He is studying the conditions under which rats and fleas are conveyed from place to place in grain bags and other infected articles and is working out the most efficient methods for dealing

with this problem in the field. The Travancore Government, whose territory adjoins this Valley, have co-operated in this latter experiment.

(8) Rat-proofing of godowns in the Cumbum as a permanent anti-plague measure has been started. Four godowns have already been built and three others are under construction. Local bodies especially in plague-infected areas could greatly strengthen our hands for plague prevention if they insisted on rat-proof godowns as a condition for the renewal of licence for all rice-mills.

60. My special thanks are due to Lieut.-Col. H. H. King, I.M.S., Director, King Institute, and Major W. J. Webster, I.M.S., Assistant Director, King Institute, Guindy, for their assistance in this work of plague field research. Most of the work, which Dr. George has been carrying out, is at the suggestion of and in close consultation with these two officers. I believe that such co-ordination of work is essential for success and I personally look for the closest unity between the Public Health Department and the Research Department on the lines which have been evolved in this piece of valuable research field work for suffering humanity.

PUBLIC RESORTS ACT.

61. During the year under report, the Act was extended to Badvel Panchayat only. The draft rules published under section 14 of the Act have not yet been confirmed.

PUBLIC HEALTH ESSAYS.

62. A number of interesting and instructive papers were read at the Group Conferences by Health Officers and they were published in the Journal of the Association of Health Officers of this Presidency. Want of space prevents any reference to the actual contents of these interesting essays.

PERSONAL PROCEEDINGS AND OFFICE.

63. The strength of the Public Health Department on 31st December 1932, was :—

1. Director of Public Health ...	1.	
2. Assistant Directors of Public Health.	5	This includes one Professor of Hygiene, one Lady Assistant Director of Public Health, and one post of Assistant Director of Public Health held temporarily vacant.
3. First-class Health Officers ...	55.	
4. Second-class do. ...	48.	

5. Health Inspectors ...	285.	This includes two temporary posts in the Anti-hookworm campaign and two temporary posts in the Vizagapatam Agency sanctioned for anti-malarial work.
6. Government Vaccinators ...	43.	
7. First-class do. ...	238.	Employed by local bodies.
8. Second-class do. ...	577.	Do.
9. Compounders ...	2.	

One Assistant Director continued to be on leave in England and the post was held vacant. Two Health Officers were on study leave in England; one returned to duty during the year. Owing to financial stringency no Health Officer was deputed for Malaria training at Karnal or for study at the School of Tropical Medicine, Calcutta. As a measure of retrenchment the posts of Special Malaria Officer and his staff were abolished and the posts of Rural Sanitation Officer and Propaganda Officer were amalgamated. To continue the malaria policy of the Government one First-class Health Officer trained in anti-malarial work was appointed from the existing cadre.

The continuance of the six temporary Assistant District Health Officers was sanctioned for a further period of one year from 1932.

64. Consequent on the decision of the Government to permit the Trichinopoly Municipality to appoint its own Health Officer the Health officer employed in the municipality was withdrawn, resulting in a temporary reduction in the cadre of Health Officers.

The headquarters of the District Health Officer, Ramnad, was changed from Madura to Ramnad.

Two Health Officers were removed from service and two died during the year.

As a measure of retrenchment, the cadre of Health Inspectors was reduced by ten; and the two school units in the Hookworm Campaign in charge of Sub-Assistant Surgeons with the compounders in the Madras Penitentiary were abolished. The anti-malarial work in the Vizagapatam Agency was continued on a retrenched scale. Two Health Inspectors and two peons were sanctioned for a period of one year from the 1st April 1932.

Five Health Inspectors were reverted, eight were punished, seven retired, one deserted his post and was discharged and three died.

65. Lieut.-Col. J. R. D. Webb, O.B.E., I.M.S., held charge as Director of Public Health, throughout the year.

He completed his tour of the whole Presidency during the first year of his appointment. In this way he was able to get a good vision of Public Health work in this extensive area.

In September 1932, he visited Ceylon with Government's consent, and was able to study Public Health measures adopted in that island.

To encourage District Public Health work he decided to hold Group Conferences for Officers in six circles throughout the Presidency. These conferences will be commented upon in the next report.

ANNEXURE A—cont.

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cochin, Coimbatore, Conjeevaram, Cuddalore, Kumbakonam, Madurai, Mangalore, Negapatam, Salem, Tanjore, Tinnevely, Trichinopoly and Vellore during the year 1932—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.
1	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
2	2	42	1	3	2	...	1	...	...	23	...	...	2	...	1
3	13	34	...	8	14	4	5	2	...	18	...	...	3	...	1
4	122	143	71	146	38	9	4	2	...	10	...	...	3	...	...
5	143	191	164	199	19	15	6	...	...	9	1	1	1	...	...
6	280	410	236	356	73	28	13	4	...	52	1	1	3	...	2
7	538	520	838	486	40	112	110	6	...	15	17	4	...	...	...
8	222	68	170	47	12	10	14	5	...	14	17	7	...	...	...
9	146	19	53	17	7	8	10	21	...	9	17	5	...	...	...
10	133	12	57	51	14	2	7	30	...	1	14	19	...	...	...
11	296	24	143	170	60	20	12	90	...	1	56	49	...	...	...
12	231	47	121	146	88	29	15	106	...	1	46	59	...	...	...
13	163	86	136	104	90	25	17	124	...	3	77	20	...	...	...
14	163	100	143	95	106	17	13	131	...	3	56	14	...	...	...
15	82	97	136	141	113	18	13	120	...	3	79	22	...	...	...
16	2,315	1,388	2,083	1,563	603	269	230	637	13	365	370	110	51	17	20
17	2.01	1.21	1.91	1.36	.52	.23	.20	.55	.01	.32	.32	.10	.04	.02	.02
18	Ratio per 1,000 of population...														

40

ANNEXURE A—cont.

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cochin, Coimbatore, Conjeevaram, Cuddalore, Kumbakonam, Madurai, Mangalore, Negapatam, Salem, Tanjore, Tinnevely, Trichinopoly and Vellore during the year 1932—cont.

Age at the time of death.	Diseases of the nervous system.					Accidents of pregnancy and child-birth.			Deficiency diseases.			Malignant diseases.							
	Convulsions.		Cerebral haemorrhage (apoplexy).		Tetanus.	Epilepsy.	Others.	Puerperal sepsis.	Abortion.	Other accidents and deaths of pregnancy and child-birth.	Peri Part.	Rickets.	Others.	Alimentary.	Genito-urinary.	Breast.	Other regions.	Ankylostomiasis.	
	(31)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	
1	Under one week																		
2	Over one week																		
3	Over one month and not exceeding 6 months																		
4	Over 6 months and not exceeding 12 months																		
5	Total under one year																		
6	One and under 5 years																		
7	5 years and under 10 years																		
8	10 years and under 15 years																		
9	15 years and under 20 years																		
10	20 years and under 30 years																		
11	30 years and under 40 years																		
12	40 years and under 50 years																		
13	50 years and under 60 years																		
14	60 years and upwards																		
15	Total of all ages																		
16	Rate per 1,000 of population																		

41

22

ANNEXURE A—cont.

Detailed Return of Births and Deaths in the 15 Municipalities of Bellary, Calicut, Cocanada, Coimbatore, Cojseveram, Cuddalore, Kumbakonam, Madurai, Mangalore, Negapatam, Salem, Tanjore, Tirunelveli, Trichinopoly and Vellore during the year 1932—cont.

Age at the time of death.	Leprosy.	Alcoholism.	Congenital debility and malformation.	Rabies.	Wounds and accidents.	Snake-bite.	Killed by wild beasts.	Suicides.	Poisons.	Wild age.	All other causes.	Total deaths from all causes.	Rate per mille of population.	Remarks.
1. Not exceeding one month.	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)
Under one week.	...	...	1,843	...	5	...	...	...	1	...	45	2,521	...	
Over one week.	...	...	575	...	...	...	...	...	...	...	110	1,583	...	
Over one month and not exceeding 3 months.	...	...	232	...	3	...	...	...	...	...	213	2,220	...	
Over 3 months and not exceeding 12 months.	...	...	34	...	3	...	...	...	2	...	93	1,782	...	
Total under one year.	...	...	2,684	...	11	...	...	...	3	...	461	8,100†	159,724	
One and under 5 years.	...	...	35	...	44	...	...	...	2	...	207	4,811	39,42	
5 years and under 10 years.	...	...	...	...	4	...	...	...	2	...	52	1,112	8,25	
10 years and under 15 years.	...	...	...	...	36	...	...	...	1	...	39	700	531	
15 years and under 20 years.	...	...	...	...	40	...	...	...	1	...	54	1,029	8,65	
20 years and under 25 years.	...	...	...	...	27	...	...	...	1	...	213	2,805	12,92	
25 years and under 30 years.	...	...	...	...	57	...	...	...	6	...	301	2,612	16,37	
30 years and under 35 years.	...	...	...	...	72	...	...	...	8	...	332	2,208	19,21	
35 years and under 40 years.	...	...	...	...	43	...	...	...	3	...	358	2,187	31,35	
40 years and under 45 years.	...	...	...	...	35	...	...	...	2	...	271	6,095	115,86	
45 years and under 50 years.	...	...	...	...	32	...	...	...	2	...	...	...	...	
50 years and under 55 years.	...	...	...	...	42	...	...	...	...	...	...	...	...	
55 years and under 60 years.	...	...	...	...	1	...	...	...	...	...	...	...	...	
60 years and upwards.	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total of all ages.	...	...	2,719	...	207	...	...	...	24	...	2,320	31,665	27,48	
Rate per 1,000 of population.	...	...	2,36	...	33	...	...	...	02	...	2,01	27,48	...	

† Total births and deaths exclude "Still-births."

ANNEXURE B.

Statement showing the Total Number of Deaths from Cholera during 1932 in the Municipalities protected with Water-supply.

Names of municipalities.	Total deaths from cholera during 1932.	Names of municipalities.	Total deaths from cholera during 1932.
1. Adoni ...	...	19. Kumbakonam ...	...
2. Anantapur ...	...	20. Karnool ...	...
3. Bellary ...	...	21. Madras ...	5
4. Berhampur ...	2	22. Madurai ...	37
5. Bezawada ...	...	23. Masulipatam ...	...
6. Chidambaram ...	7	24. Negapatam ...	...
7. Chingleput ...	...	25. Nellore ...	...
8. Cocanada ...	51	26. Ootacamund ...	5
9. Coimbatore ...	2	27. Periyakulam ...	5
10. Cojseveram ...	...	28. Salem ...	3
11. Coonoor ...	...	29. Tanjore ...	1
12. Cuddapah ...	23	30. Tirupati ...	33
13. Dindigul ...	...	31. Trichinopoly ...	...
14. Erode ...	...	32. Tuticorin ...	1
15. Gudiyattam ...	...	33. Vellore ...	...
16. Guntur ...	...	34. Vizagapatam ...	...
17. Kodaikanal ...	...	35. Vizianagram ...	...

ANNEXURE C.

*Financial Statement showing the Work of the Health Propaganda
Section of the Office of the Director of Public Health,
Madras, during the year 1932.*

Serial number.	Details.	Amount.		
		Rs.	A.	P.
1.	Establishment charges (including pay of officers, establishment, allowances, honorarium)	1,524	0	0
2.	Cost of printing	1,793	12	0
3.	Miscellaneous charges including repairs and renewals of equipment, slides, purchase of materials for artist	2,732	11	9
4.	Total cost	6,050	7	9
5.	Sale-proceeds of literature	3,472	2	0
6.	Value of literature unsold	2,850	0	0
7.	Receipts from loan of magic lanterns, slides, films, etc.	1,737	3	0
8.	Total of items 5, 6 and 7	8,059	5	0
9.	Net gain	2,008	13	3
10.	Net extra expenditure deducting Rs. 8,000 being the grant originally made to the Madras Health Council. No extra expendi- ture.			
11.	Net extra expenditure according to the sanctioned scheme	3,132	0	0
12.	Capital expenditure (purchase of films, etc.) specially sanctioned from time to time	3,149	10	6

ANNEXURE D.

MATERNITY RELIEF AND CHILD-WELFARE SURVEY IN
RURAL AREAS—DISTRICTS EXCLUSIVE OF MUNICI-
PALITIES.

ANNEX

Maternity Relief and Child-welfare Survey in

Number.	Name of district.	Area in square miles.	Total revenue of district Board.	Amount spent on Maternity and Child-welfare work.	Percentage of total revenue spent on Maternity and Child-welfare work.	Maternity and Child-welfare centres.		Medical women available as consultants.	Number of Health visitors.	Midwives.		
						Local bodies.	Private bodies.			Local bodies.	Private.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		sq.	rs.	rs.	%							
1	Anantapur	6,741	52,180	...	...	...	...	...	...	...	...	...
2	Bellary	5,713	81,440	...	...	...	...	...	...	...	...	...
3	Chingleput	3,078	6,82,552	11,000	1.6	...	...	...	...	...	...	...
4	Chittoor	5,901	4,33,240	1,750	0.4	...	...	...	...	...	...	...
5	Coimbatore	7,085	...	6,000	...	...	...	...	...	...	...	...
6	Cuddapah	5,919	3,50,000	700	0.2	...	...	...	...	...	...	...
7	Ganjām	4,799	5,17,780	...	...	...	...	...	...	...	...	...
8	Godāvari, East.	2,539	7,09,987	...	...	...	...	...	...	...	...	...
9	Godāvari, West.	2,381	7,11,999	1,200	0.2	...	...	...	...	...	...	...
10	Guntūr	5,757	14,49,100	...	...	...	...	...	...	...	...	...
11	Kistna	3,547	...	900	...	...	...	...	...	...	...	...
12	Kurnool	7,581	...	...	...	...	...	...	...	...	...	...
13	Madura	4,889	8,89,347	1,508	0.2	...	...	...	...	...	...	...
14	Malabar	5,794	17,06,566	...	...	...	...	...	...	...	...	...
15	Nellore	7,945	...	...	...	...	...	...	...	...	...	...
16	The Nilgiris	563	3,75,000	1,000	0.3	...	...	...	...	...	...	...
17	North Arcot.	4,843	6,36,098	...	...	...	...	...	...	...	...	...
18	Ramnad	4,810	5,04,650	1,800	0.4	...	...	...	...	...	...	...
19	Salem	7,653	8,15,760	6,200	0.7	...	...	...	...	...	...	...
20	South Arcot	4,162	7,41,875	...	...	...	...	...	...	...	...	...
21	South Kanara	4,016	4,65,501	292	0.1	...	...	...	...	...	...	...
22	Tanjore	3,742	19,90,117	1,001	0.1	...	...	...	...	...	...	...
23	Tinnevely	1,906	2,34,500	...	...	...	...	...	...	...	...	...
24	Trichinopoly	4,814	...	2,000	...	...	...	...	...	...	...	...
25	Vizagapatam	4,557	18,39,947	6,120	0.3	...	...	...	...	...	...	...
Total for Districts exclusive of Municipalities ...						40	18	103	0.07	4	39	14

URE D.

Rural Areas—Districts exclusive of Municipalities

Midwives.																													
For domiciliary service alone.		In private practice.		In hospitals and dispensaries (Govt. L.P. and Private).		Rural medical relief dispensaries.		Total.		Number of midwives per 1,000 births.		Percentage of cases receiving skilled aid at child birth.		Number of maternity beds in hospitals.		Number of maternity beds per 1,000 births.		Live-births.		Still-births.		Number of infantile deaths.		Infantile mortality rate per 1,000 births.		Maternal deaths.		Maternal mortality rate per 1,000 births.	
Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.	Local bodies.	Private.
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)
2	...	...	...	13	...	17	0.4	7.2	4	0.1	35,625	490	7,234	187.9	503	13.02	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	11	1	12	0.3	5.5	...	...	36,866	311	6,596	178.9	240	6.5	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	38	12	50	1.1	8.8	39	0.8	50,923	593	10,527	206.7	342	6.7	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	27	...	39	0.8	5.2	47	0.8	47,071	452	8,592	180.2	374	7.8	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	13	1	23	0.3	1.6	10	0.2	81,789	268	15,537	189.9	312	4.24	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	13	2	17	0.5	2.4	...	...	53,139	163	5,103	152.8	365	10.9	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	24	1	25	0.3	2.6	1	0.01	80,551	625	15,757	195.6	409	5.1	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	38	12	50	0.9	5.5	27	0.5	58,202	424	9,098	166.0	418	7.2	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	13	5	20	0.5	3.4	25	0.6	44,683	618	5,561	213.9	398	8.9	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	22	15	37	0.5	3.6	35	0.5	6,895	559	14,002	200.3	457	6.54	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	20	2	23	0.5	4.4	61	1.4	44,605	516	10,707	249.0	356	7.9	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	11	3	14	0.3	2.8	8	0.2	42,124	397	7,204	171.0	351	8.3	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	19	7	29	0.5	8.5	6	0.1	61,104	245	11,469	187.7	318	5.2	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	24	17	41	0.3	1.8	8	0.1	125,572	2,702	19,164	152.6	729	5.8	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	21	6	30	0.6	4.2	...	...	51,521	490	9,373	181.9	322	6.2	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	5	...	8	0.2	4.5	12	4.99	8,602	55	638	177.1	20	5.6	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	38	9	53	0.6	8.0	23	1.5	82,889	698	14,121	170.4	541	6.5	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	36	8	45	0.9	7.7	18	0.4	47,977	432	7,301	152.2	240	6.0	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	20	...	35	0.4	3.9	2	0.02	84,387	519	15,285	181.2	481	5.7	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	7	...	38	0.5	4.0	41	0.5	70,728	661	14,518	185.9	706	8.6	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	1	...	21	0.4	2.8	8	0.2	51,007	1,397	7,570	148.4	350	6.48	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	44	13	58	0.9	6.3	30	0.5	65,643	1,152	12,060	183.7	99	15.1	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	24	...	28	0.4	2.8	6	0.1	61,030	923	12,568	201.9	420	6.4	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	23	9	33	0.5	1.7	16	0.3	60,331	496	10,741	178.4	590	8.9	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	17	9	29	0.3	6.8	9	0.1	86,386	532	15,558	180.1	361	4.1	...	...	...	...	...	...	...	...	...	...	...	...	
32	12	10	518	135	781	0.5	4.4	542	0.36	1,491,426	16,826	271,144	181.8	10,637	7.2	...	...	...	...	...	...	...	...	...	...	...	...	...	

† Two trained dhais.
§ 26 trained dhais.

47372
3449
51426

ANNEX

Maternity Relief and Child-

Number.	Name of municipality.	Area in square miles.	Total revenue of the municipality.	Amount spent on Maternity and Child-welfare work.	Percentage of total revenue spent on Maternity and Child-welfare work.	Maternity and Child-Welfare centres.		Medical women available as consultants.	Health visitors.	Midwives.		
						Municipal.	Private bodies.			In child-welfare centres.	Private bodies.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			RS.									
1	Hindupur	1.85	1,16,754	...	...	...	...	1	1.8	...	...	...
2	Anantapur	2.27	65,000	300	0.5	...	1	1	1.83	...	...	1
3	Tadipatri	...	41,930	...	...	...	...	...	...	...	...	...
4	Bellary	10	2,84,240	650	0.23	...	1	2	1.06	...	...	1
5	Adoni	4.43	1,84,333	803	0.5	1	...	1	0.7	...	1	...
6	Hospet	...	95,000	500	0.53	...	...	1	1.2	...	...	...
7	Conjeevaram	4	1,96,571	...	...	...	...	1	0.45	...	...	...
8	Saidapet	7.5	150,631	370	0.25	...	...	...	...	...	...	...
9	Chingleput	1.5	40,805	1,648	4.2	1	...	1	1.4	...	1	...
10	Chittoor	...	44,530	1,140	2.6	...	1	2	2.8	...	...	1
11	Tirupati	3	1,00,000	3,000	3.0	...	...	1	1.8	...	1	...
12	Coimbatore	...	5,81,284	5,508	0.9	...	3	4	1.1	...	...	3
13	Erode	2.42	1,12,618	1,368	1.2	1	...	3	3.15	...	1	...
14	Dharapuram	...	...	...	...	...	...	2	2.9	...	...	...
15	Pollachi	4	95,280	305	0.32	...	...	1	1.3	...	...	...
16	Tiruppur	5	...	...	...	...	...	1	2.04	...	...	...
17	Udumalpet	2.5	53,985	...	...	...	...	1	2.8	...	...	...
18	Cuddapah	2.65	1,10,822	1,050	0.9	1	...	1	1.1	...	1	...
19	Prodattur	2.7	84,620	320	0.37	...	...	1	1.2	...	...	...
20	Berhampur	6	1,52,910	500	0.32	...	1	4	3.0	1	2	...
21	Parlakimedi	1.75	30,326	...	...	...	...	1	1.5	...	...	...
22	Chicacole	...	60,615	120	0.2	...	...	...	...	...	...	...
23	Rajahmundry	3.82	1,67,940	800	0.6	...	1	3	1.41	...	...	1
24	Oceanada	7.85	2,58,610	1,805	0.6	1	...	2	1.14	...	...	...
25	Poddapuram	3	25,193	...	...	...	...	...	...	...	...	...
26	Ellore	6	2,20,000	1,600	0.72	1	...	1	0.5	...	4	...
27	Palacole	...	82,000	...	...	...	...	1	2.1	...	...	...
28	Guntur	6	2,04,940	1,180	0.6	1	...	10	3.6	...	1	...
29	Tenali	...	93,047	...	...	...	...	1	1.4	...	...	...
30	Chirala	2	44,100	...	...	...	...	1	1.65	...	...	...
31	Ongole	...	65,960	168	0.25	1	...	2	2.5	...	1	...
32	Narasaraopet	2.63	62,850	...	...	...	...	...	...	...	...	...
33	Bezwada	5.75	5,65,400	2,800	0.5	...	1	5	2.0	...	1	...
34	Masulipatam	...	1,95,300	3,400	2.0	...	...	2	0.9	...	...	...
35	Kurnool	3.6	2,65,722	850	0.3	1	...	1	0.6	...	1	...
36	Nandyal	...	...	...	...	...	...	1	1.1	...	...	...
37	Madras	29	...	...	...	12	1	...	32	...	...	1
38	Madara	8.07	11,45,030	28,000	2.4	1	...	3	0.5	...	4	...
39	Dindigul	5.04	1,05,150	2,900	3.0	1	...	2	1.2	...	1	...
40	Bodinayakanur	2.15	61,510	...	...	...	...	1	0.9	...	...	...
41	Palni	1.68	47,940	260	0.5	...	...	...	...	...	...	...
42	Periyakulam	0.75	51,800	900	2.0	1	...	1	1.1	...	1	...
43	Kodaikanal	5.5	62,570	150	0.2	...	1	...	...	...	...	1
44	Calicut	...	3,15,980	1,800	0.5	...	4	2	0.7	...	...	4
45	Palghat	10.49	1,30,000	...	...	...	1	1	0.6	...	...	1
46	Cannanore	4.87	88,640	2,110	2.1	1	...	3	2.8	...	...	...
47	Tellicherry	2.71	68,480	1,580	2.3	...	1	1	1.1	...	...	1

URE E.

welfare Survey—Municipalities

Municipal.	Private bodies.	In private practice.	In hospitals and dispensaries, Government, municipal and private.	Total.	Per 1,000 births.	Percentage of cases receiving skilled aid at child birth.	Maternity beds in hospitals and dispensaries.		Live births.	Still births.	Number of infantile deaths.	Infantile mortality rate per 1,000 births.	Maternal deaths.	Maternal mortality rate per 1,000 births.
							Number.	Per 1,000 births.						
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
...	...	...	1	1	1.9	12.6	...	...	523	10	76	145.3	5	9.6
...	...	...	1	4	7.32	63.5	4	7.32	545	31	66	121.1	18	33.0
...	...	...	1	1	2.5	...	...	...	413	6	43	106.7	8	9.9
...	...	...	2	9	5.0	23.6	4	2.12	1,575	47	872	108.5	24	12.8
...	...	...	1	1	0.7	13.33	2	1.7	1,502	49	169	112.5	13	8.5
...	...	...	1	2	2.4	15.1	2	2.4	820	44	137	167.1	9	10.9
...	...	...	4	8	3.6	47.9	15	5.85	2,159	117	379	173.9	42	19.3
...	...	...	1	2	1.7	1.3	...	...	1,130	19	214	1.94	5	4.4
...	...	...	2	6	8.3	78.5	12	16.6	720	28	125	173.6	22	30.6
...	...	...	2	5	8.4	68.4	10	4.0	715	52	72	100.7	12	16.7
...	...	...	1	3	5.3	33.60	4	7.2	564	38	121	21.6	10	17.7
...	...	...	7	17	4.9	45.5	14	4.1	3,444	96	312	179.8	36	10.6
...	...	...	2	10	10.05	33.4	10	10.05	405	24	130	139.7	12	12.1
...	...	...	1	5	7.2	24.9	2	2.9	688	11	110	15.6	8	11.5
...	...	...	2	2	2.6	40.3	2	2.6	777	46	149	191.7	7	9.9
...	...	...	1	3	6.12	1.47	...	...	490	14	76	1.51	4	8.2
...	...	...	1	1	1	...	...	...	280	13	70	104.4	7	19.4
...	...	...	3	1	6	2.7	6	6.6	103	52	184	148.4	35	18.8
...	...	...	2	2	2.4	28.24	2	2.4	8.6	17	101	122.3	18	21.3
...	...	...	4	6	4.4	30.2	14	10.2	1,375	17	171	124.4	16	11.6
...	...	...	1	1	1.5	18.8	2	3.0	657	9	104	15.4	4	5.8
...	...	...	1	1	1.7	13.3	...	...	527	5	28	12.0	4	7.6
...	...	...	1	15	7.0	50.0	2	0.84	2,120	75	545	257.1	18	17.9
...	...	...	2	7	4.0	37.9	6	3.42	1,747	8	301	223.8	22	12.6
...	...	...	1	1	1.9	...	...	...	519	17	53	102.1	5	9.6
...	...	...	1	2	3.6	47.87	4	2.0	1,863	44	2.5	120.8	20	10.7
...	...	...	1	1	2.1	23.5	...	...	473	6	98	207.2	9	16.9
...	...	...	1	17	6.2	69.2	108	39.8	2,740	269	569	218.6	81	29.6
...	...	...	2	2	2.8	44.1	...	...	717	81	135	183.3	12	16.9
...	...	...	1	1	1.65	19.8	2	3.3	605	32	99	163.6	7	11.4
...	...	...	2	6	7.5	27.34	14	17.5	801	68	124	154.8	24	20.9
...	...	...	1	1	1.8	26.37	2	3.0	245	33	111	186.5	6	10.6
...	...	...	1	5	2.0	35.8	5	2.0	2,546	40	508	221.4	29	11.3
...	...	...	2	8	3.6	43.4	12	5.4	2,130	80	514	241.3	13	6.1
...	...	...	9	10	5.0	50.0	34	2.0	1,697	53	221	130.2	22	13.0
...	...	...	2	2	2.2	10.5	...	...	894	38	88	93.4	19	11.3
...	...	...	82	192	6.9	...	...	...	27,542	1,326	6,574	238.7	279	13.1
...	...	...	3	19	2.0	21.8	62	7.8	6,615	263	1,485	224.5	86	13.0
...	...	...	2	8	4.8	39.5	4	2.4	1,735	71	324	166.7	15	8.6
...	...	...	1	1	0.9	17.5	...	...	1,094	19	204	166.5	11	10.0
...	...	...	1	1	1.3	15.4	...	...	780	16	154	197.4	2	2.6
...	...	...	1	3	3.2	15.3	2	2.1	928	15	241	259.7	7	7.5
...	...	...	1	3	11.4	55.3	1	3.9	262	11	50	190.8	...	...
...	...	...	3	17	6.0	25.4	8	2.8	2,991	169	505	168.8	51	17.1
...	...	...	1	4	3.6	12.3	3	1.8	1,857	99	323	173.9	20	10.8
...	...	...	3	11	10.8	65.0	3	2.3	1,060	51	136	128.3	8	7.5
...	...	...	5	11	12.4	43.0	11	12.4	590	64	135	151.7	8	8.9

* One trained dhai.

† Two trained dhais.

ANNEX

Maternity Relief and Child-

Number.	Name of municipality.	Area in square miles.	Total revenue of the municipality.	Amount spent of Maternity and Child-welfare work.	Percentage of total revenue spent on Maternity and Child-welfare work.	Maternity and Child-welfare Centres.		Medical women available as consultants.		Numbers of Health visitors.	Midwives in Child-welfare centres.	
						Municipal.	Private.	Number.	Per 1,000 births.		Municipal.	Private.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			Rs.	Rs.								
48	Cochin...	1.01	92,135	600	0.6	1	1	4	4.9	...	1	1
49	Vellore	4	2,987	200	0.95	1	1	8	3.2	...	1	1
50	Ootacamund	4	5,76,750	7,420	1.3	2	1	1	0.8	...	2	...
51	Ootacamund	5.81	2,08,510	270	0.1	1	1	1	2.1	...	...	...
52	Vellore	...	3,73,830	770	0.7	1	1	3	1.0	...	1	1
53	Gudiyattang	1.29	92,300	300	0.3	1	1	2	2.5	...	...	...
54	Tiruvannamalai	...	72,720	450	0.6	1	1	1	0.9	...	1	...
55	Vaniyambadi	...	45,591	100	0.1	...	...	...	...	...	...	...
56	Tirappattur	...	73,732	...	...	...	...	1	1.2	...	...	...
57	Walajapet	1.03	...	...	...	...	...	...	...	...	...	...
58	Srivillipattur	2	49,180	...	...	...	...	1	0.8	...	...	...
59	Virudhunagar	2.25	93,320	...	...	...	...	1	0.9	...	...	...
60	Sivakasi	2.6	29,590	...	...	...	...	1	2.1	...	...	...
61	Karaikudi	...	98,960	...	...	...	...	1	1.7	...	...	...
62	Salem	5.31	3,09,750	3,400	1.1	2	3	3	0.8	1	2	...
63	Cuddalore	12.05	1,70,200	1,180	0.6	2	4	4	1.9	...	2	...
64	Chidambaram	2	90,110	450	0.5	...	...	1	1.3	...	...	...
65	Villupuram	2.33	61,468	500	0.8	...	...	1	1.9	...	...	...
66	Mangalore	5.25	2,06,600	3,260	1.5	2	2	2	0.9	...	1	...
67	Kumbakonam	...	3,22,778	1,780	0.5	...	...	4	1.4	...	...	...
68	Tanjore	8.3	3,40,340	1,150	0.34	...	2	3	1.2	1	1	1
69	Nagapattam	5.44	2,50,000	600	0.24	1	1	2	1.3	...	1	1
70	Mayavaram	4.69	1,21,123	422	0.4	1	...	1	0.9	...	2	...
71	Tiruvarur	4	58,030	...	...	...	...	...	...	...	...	...
72	Maanargudi	4.2	64,770	560	0.5	...	1	1	1.2	...	1	1
73	Tinnevely	3.8	1,74,747	1,080	0.6	1	1	1	0.6	...	1	...
74	Palani	...	1,36,415	300	0.2	...	1	2	1.2	...	...	1
75	Tuticorin	3.07	2,73,830	2,540	0.9	...	1	1	0.5	...	...	1
76	Trichinopoly	3.9	8,33,176	3,020	0.4	...	2	7	1.5	...	...	1
77	Srirangam	5.07	2,33,097	1,160	0.5	1	...	1	1.1	...	1	...
78	Karur	2.33	1,14,830	380	0.3	...	...	1	1.7	...	...	...
79	Vizagapatam	6.13	4,56,979	2,150	0.5	1	...	5	3.0	...	1	...
80	Vizianagaram	3.49	2,39,884	600	0.3	...	1	1	0.8	...	...	3
81	Anakapalle	19	...	500	...	...	...	...	...	...	...	...
82	Dimlipatam	5.2	33,562	...	...	...	1	1	2.8	...	...	...
Total for Municipalities		...	...	...	...	40	32	137	...	35	36	28
Grand Total for the Presidency		...	...	...	...	80	50	239	...	39	75	42

URE E—cont.

welfare Survey—Municipalities—cont.

Midwives.										Maternity beds in hospitals and dispensaries		Live births.	Still births.	Number of infantile deaths.	Infantile mortality rate per 1,000 births.	Maternal deaths.	Maternal mortality rate per 1,000 births.
For dispensary service alone.	In private practice.	In hospitals and dispensaries, Government, Municipal and private.	Total.	Percentage of cases receiving skilled aid at child birth.	Number.	Per 1,000 births.	Number.	Per 1,000 births.									
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	
1	15	3	5	7	8.6	62.3	4	4.9	811	50	138	170.2	7	8.8			
2	...	...	5	12.3	78.7	68	35.4	1,862	216	393	211.1	50	26.9				
3	...	3	1	5.2	71.4	26	20.8	964	21	186	192.9	7	7.3				
4	...	...	1	12.5	63.2	8	16.6	484	22	68	140.5	8	16.5				
5	...	...	6	40	47.2	79	79.0	2,984	150	536	179.6	39	13.1				
6	...	...	2	2.5	33.3	...	...	773	17	121	154.6	18	23.3				
7	...	...	1	0.9	16.3	...	...	1,123	12	179	168.5	13	11.5				
8	...	...	1	1.6	12.04	4	66	609	24	111	182.3	15	24.6				
9	...	...	2	2.3	47.8	...	...	845	71	90	106.4	19	22.4				
10	...	...	1	2.2	...	...	...	463	4	56	120.4	5	10.8				
11	...	...	1	0.8	18.4	...	...	1,274	28	237	186.0	30	23.6				
12	...	...	1	0.9	24.7	...	...	1,120	25	226	201.8	16	14.3				
13	...	...	1	2.2	25.4	...	...	470	66	140.4	6	12.8					
14	...	1	2	3.4	33.1	...	...	585	30	117.5	200.0	13	22.2				
15	...	...	8	1.7	39.6	21	5.1	4,115	189	733	178.0	41	9.9				
16	...	...	7	3.3	36.6	14	6.6	2,102	77	423	201.2	38	18.1				
17	...	...	1	4	5.2	39.6	4	5.2	776	35	138	216.5	22	28.4			
18	...	...	1	2	3.7	16.4	1	1.8	538	11	73	135.7	14	26.0			
19	15	...	4	28	13.6	73.7	24	10.8	2,061	118	199	93.6	24	11.6			
20	...	...	4	9	4.1	61.1	6	2.7	2,192	93	379	177.3	35	15.9			
21	...	2	5	9	3.1	33.7	12	4.8	2,565	183	494	192.6	30	11.7			
22	...	2	2	8	5.0	35.4	10	6.5	1,591	81	332	202.7	45	28.8			
23	...	2	5	9	8.5	35.1	2	1.9	1,043	23	163	179.4	10	9.6			
24	...	1	3	4	6.6	17.2	...	...	606	23	110	181.5	8	12.2			
25	...	...	1	3	8.5	34.5	4	4.8	852	51	161	177.2	12	14.1			
26	...	...	5	6	3.6	31.5	...	...	1,908	58	492	257.0	30	15.7			
27	...	...	1	6	3.6	42.2	6	3.6	1,901	47	442	232.5	30	15.8			
28	...	4	2	10	3.0	47.6	22	11.0	1,984	75	471	232.4	26	13.1			
29	...	3	6	14	3.1	46.8	22	5.2	4,393	185	768	174.9	54	14.6			
30	...	1	2	5	7.1	35.1	6	8.4	709	27	122	172.1	14	19.9			
31	...	...	2	2	3.4	32.1	...	...	576	8	96	164.8	9	15.6			
32	...	2	3	9	5.0	54.3	32	17.3	1,843	91	544	295.2	22	11.0			
33	...	...	8	6	3.6	40.7	16	9.6	1,568	65	311	198.8	17	10.8			
34	...	...	2	2	3.0	29.1	...	...	690	23	117	169.6	15	21.7			
35	...	...	4	4	11.1	62.3	2	5.0	358	26	59	164.8	6	16.7			
193	19	163	232	371	4.9	...	759	5.6	1,35,955	5,878	26,615	185.02	1,960	13.7			
225	31	173	747	1,132	0.89	...	1,391	0.8	1,627,381	11,699	297,759	182.9	12,527	7.7			

* One trained dhal.

VITAL STATISTICS OF THE

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

Number.	Population (exclusive of Europeans and Anglo-Indians) as per Census of 1931.			Districts.	Population (exclusive of Europeans and Anglo-Indians) for which returns were received.		
	Males.	Females.	Total.		Males.	Females.	Total.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	539,258	510,624	1,049,880	Anantapur	539,258	510,624	1,049,880
2	492,807	476,477	969,284	Bellary	492,807	476,477	969,284
3	835,017	816,414	1,651,431	Chingleput	835,017	816,414	1,651,431
4	738,216	708,674	1,446,890	Chittoor	738,216	708,674	1,446,890
5	1,217,407	1,225,963	2,443,370	Coimbatore	1,217,407	1,225,963	2,443,370
6	483,895	465,473	949,368	Cuddapah	483,895	465,473	949,368
7	941,100	1,112,111	2,053,211	Ganjām	941,100	1,112,111	2,053,211
8	948,927	970,908	1,919,835	Godavari, East.	948,927	970,908	1,919,835
9	602,301	620,710	1,223,011	Godavari, West.	602,301	620,710	1,223,011
10	1,028,919	1,006,613	2,035,532	Guntur	1,028,919	1,006,613	2,035,532
11	635,584	618,371	1,253,955	Kistna	635,584	618,371	1,253,955
12	520,202	504,685	1,024,887	Karnool	520,202	504,685	1,024,887
13	333,822	299,170	632,992	Madras	333,822	299,170	632,992
14	1,080,706	1,113,607	2,194,313	Madura	1,080,706	1,113,607	2,194,313
15	1,714,449	1,816,354	3,530,803	Malabar	1,714,449	1,816,354	3,530,803
16	743,994	741,592	1,485,586	Nellore	743,994	741,592	1,485,586
17	89,448	75,008	164,456	Nilgiris, The	89,448	75,008	164,456
18	1,130,978	1,134,766	2,265,744	North Arcot	1,130,978	1,134,766	2,265,744
19	872,098	968,710	1,840,808	Ramanad	872,098	968,710	1,840,808
20	1,211,188	1,221,737	2,432,925	Salem	1,211,188	1,221,737	2,432,925
21	1,224,591	1,229,020	2,453,611	South Arcot	1,224,591	1,229,020	2,453,611
22	663,804	708,150	1,371,954	South Kanara	663,804	708,150	1,371,954
23	1,143,509	1,241,930	2,385,439	Tanjore	1,143,509	1,241,930	2,385,439
24	936,657	1,059,083	2,045,740	Tinnevely	936,657	1,059,083	2,045,740
25	933,889	977,375	1,911,264	Trichinopoly	933,889	977,375	1,911,264
26	1,190,491	1,251,100	2,441,591	Vizagapatam	1,190,491	1,251,100	2,441,591
27	758,481	764,713	1,523,194	Agencies (Ganjām and Vizagapatam).	...	...	...
27	23,061,736	23,637,338	46,699,074	Grand Total for the Presidency	22,803,255	22,872,825	45,676,080
328	3,148,632	3,119,737	6,268,369	Total of town circles in the Presidency.	3,148,632	3,119,737	6,268,369
234	19,913,104	20,517,601	40,430,705	Total of rural circles in the Presidency.	19,654,623	19,753,088	39,407,711

DIX I.

GENERAL POPULATION.

Districts of the Madras Presidency during the year 1932.

Number of births registered (exclusive of Europeans and Anglo-Indians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during the previous five years.		
Males.	Females.	Total.	Males.	Fe. males.	Total.				Males.	Fe. males.	Total.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
20,381	19,715	40,096	18.41	18.78	18.59	103.88	13.80	...	20.60	20.10	20.35
20,924	20,139	41,063	21.58	20.78	21.18	103.90	17.21	...	22.00	22.18	22.09
28,433	26,519	54,952	17.22	16.00	16.61	107.22	11.89	...	19.51	18.26	18.88
25,035	23,916	48,951	17.31	15.54	16.43	104.08	12.93	...	18.81	18.13	18.47
45,512	42,905	88,417	18.63	17.60	18.12	105.87	15.95	...	18.34	17.48	17.91
18,008	17,160	35,168	18.96	18.07	18.52	104.94	17.83	...	17.75	17.12	17.44
42,400	40,580	82,980	20.73	19.77	20.25	104.28	17.57	...	19.44	18.33	18.88
32,016	30,572	62,588	18.69	15.93	17.31	104.72	10.63	...	20.13	19.50	19.81
24,198	22,821	47,019	19.79	18.68	19.23	106.03	14.56	...	22.23	21.25	21.74
38,019	36,705	74,724	18.98	18.04	18.51	105.22	14.14	...	20.79	19.78	20.28
25,333	23,898	49,231	20.19	18.15	19.17	106.44	15.90	...	21.00	19.92	20.46
22,785	21,930	44,715	20.23	21.42	20.82	108.89	10.90	...	21.57	20.77	21.17
14,120	13,422	27,542	22.31	21.21	21.76	105.10	8.71	...	23.08	21.92	22.50
37,132	35,086	72,218	17.06	16.90	16.98	106.08	11.11	...	17.74	17.03	17.38
64,181	65,000	129,181	19.32	18.42	18.87	104.89	16.40	...	20.49	19.67	20.08
27,644	25,732	53,376	18.02	17.33	17.68	107.40	14.18	...	18.68	17.61	18.14
2,571	2,479	5,050	15.64	15.93	15.78	103.71	10.37	...	20.62	19.85	20.23
45,658	44,086	89,744	20.16	19.44	19.80	108.68	17.51	...	20.85	19.98	20.41
26,378	25,048	51,426	14.35	13.63	13.99	105.32	8.92	...	15.18	14.17	14.67
45,159	43,326	88,485	18.57	17.82	18.19	104.23	16.62	...	19.30	18.48	18.89
42,847	40,257	83,104	17.47	16.43	16.95	108.36	12.04	...	18.76	15.97	17.36
27,181	25,867	53,048	19.83	18.83	19.33	104.90	13.70	...	20.70	19.68	20.19
35,462	36,035	71,497	16.13	15.12	15.62	100.78	9.41	...	15.59	14.70	15.14
34,755	32,968	67,723	17.00	16.12	16.56	105.42	10.58	...	19.96	19.24	19.60
29,574	32,434	62,008	17.91	17.30	17.60	103.52	14.02	...	15.87	15.20	15.53
46,407	41,432	87,839	19.01	18.20	18.60	104.45	14.80	...	20.81	19.22	19.99
...	...	...	...	...	...	...	...	...	...	...	...
684,153	793,228	1,477,381	18.47	17.50	17.98	105.16	14.07	...	19.12	18.32	18.72
114,835	109,191	224,026	18.33	17.43	17.88	105.17	11.37	...	18.64	17.63	18.13
719,318	684,037	1,403,355	18.49	17.58	18.03	105.16	14.50	...	17.66	18.26	17.96

No. II.—Statement of Births and Deaths registered in the Districts of the Madras Presidency during the year 1932.

Number	Districts.	Population (exclusive of Europeans and Anglo-Indians) for which returns were received.			Births.			Number of deaths registered.			
		Area in square miles.	Average population per square mile.	Total.	Total number.	Birth-rate per 1,000 of population.	Males	Females.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Anantapur	6,741	155.8	539,256	510,624	1,049,880	40,098	38.19	18,059	12,597	25,893
2	Bellary	5,718	189.7	492,807	476,477	969,284	41,063	42.37	12,510	11,860	24,330
3	Chingleput	3,091	535.1	9,501,7	816,414	1,651,431	54,952	33.29	18,411	17,278	35,889
4	Chittoor	5,801	245.2	738,216	708,674	1,446,890	48,950	38.85	16,299	14,976	30,269
5	Coinbatore	7,085	345.1	1,217,407	1,225,963	2,443,370	88,513	36.25	22,638	23,837	46,570
6	Cuddapah	5,919	160.1	483,895	485,473	969,368	35,168	40.50	9,417	8,815	18,232
7	Ganjam	4,799	427.8	941,160	1,112,111	2,053,271	83,140	40.50	23,832	23,352	47,091
8	Golávari, East	6,220	308.7	945,827	870,203	1,816,030	62,988	40.50	21,483	20,737	42,220
9	Goávari, West	2,361	518.0	602,301	620,710	1,223,011	47,019	38.45	14,858	14,888	29,316
10	Guntur	5,757	333.6	1,028,919	1,016,613	2,045,532	75,524	37.01	24,218	22,349	46,567
11	Kistna	3,547	338.5	635,583	618,371	1,253,955	49,301	39.35	15,166	14,343	29,409
12	Kurnool	7,581	135.2	520,202	504,685	1,024,887	47,715	43.67	19,457	11,881	31,338
13	Madras	29	22,197.8	332,822	299,170	632,992	27,542	43.52	11,535	10,501	22,036
14	Madra	4,912	446.8	1,080,766	1,118,07	2,198,843	72,518	33.05	24,623	23,640	48,163
15	Malabar	5,794	604.8	1,714,149	1,816,354	3,530,503	133,181	37.74	98,151	37,194	75,345
16	Nellore	7,949	186.2	743,594	741,562	1,485,586	53,383	35.95	16,482	15,869	32,351
17	Nilgiris, The	982	169.1	89,148	73,008	162,456	5,050	30.72	1,747	1,691	3,348
18	North Arcot	4,648	467.6	1,130,978	1,134,766	2,265,744	89,694	29.60	25,483	24,575	50,058
19	Rannad	4,819	381.5	632,098	966,710	1,598,808	51,426	27.38	17,631	17,526	35,037
20	Salem	7,058	344.7	1,211,158	1,221,737	2,432,895	89,435	30.39	24,316	23,778	48,099
21	South Arcot	4,208	563.3	1,224,501	1,227,020	2,451,521	83,134	33.20	27,346	26,310	53,656
22	South Kanara	4,021	341.2	603,864	708,150	1,311,954	53,068	38.71	13,662	13,691	27,353
23	Tanjore	3,782	637.5	1,143,509	1,241,930	2,385,439	74,497	31.24	25,754	26,328	52,082
24	Tinnevely	4,316	474.3	988,257	1,059,053	2,047,340	67,723	33.12	23,845	22,792	46,637
25	Trichinopoly	4,314	443.4	938,860	977,375	1,916,264	68,012	35.20	20,160	20,232	40,392
26	Vizagapatam	4,575	523.9	1,190,191	1,251,100	2,441,591	80,839	37.21	27,838	26,656	54,494
27	Agencies (Ganjam and Vizagapatam)	16,194	94.1	...	...	...	...	...	...	...	...
	Grand Total for the Presidency	142,277	325.1	22,363,255	22,572,525	45,175,880	1,627,381	36.03	504,521	457,503	992,024
	Total of town circles in the Presidency	...	...	3,148,632	3,119,737	6,268,369	214,020	35.75	77,810	74,940	152,759
	Total of rural circles in the Presidency.	...	...	19,154,623	19,752,888	38,907,511	1,403,355	36.07	426,702	412,563	839,265

No. II.—Statement of Births and Deaths registered in the District of the Madras Presidency during the year 1932—cont.

Number	Districts.	Number of deaths to every 100 deaths of female.	Ratio of deaths per 1,000 of population from										All causes.		Mean ratio of deaths per 1,000 during previous five years.		
			Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Keapit-tory.	Injuries.	Deaths from child birth.	All other causes.	Males.	Females.	Total.	Males.	Females.	Total.
		(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
1	Anantapur	108.76	0.02	0.01	0.001	6.51	1.35	2.67	0.59	0.51	12.93	24.18	24.60	24.39	28.17	29.21	28.68
2	Bellary	105.30	...	0.02	0.18	6.25	1.80	2.85	0.24	0.20	14.51	25.88	24.18	25.16	29.47	29.14	29.42
3	Chingleput	106.56	0.008	0.06	...	3.33	1.85	1.66	0.22	0.22	13.65	22.05	21.16	21.60	25.07	24.66	24.90
4	Chittoor	102.11	0.03	0.03	...	6.27	2.10	2.69	0.32	0.27	4.21	20.71	21.13	20.92	25.06	25.36	25.23
5	Coimbatore	107.09	0.44	0.03	0.05	6.20	2.83	2.83	0.37	0.17	9.36	21.05	19.52	20.28	22.04	20.98	21.46
6	Cuddapah	106.83	...	0.02	...	8.91	1.75	2.05	0.30	0.44	6.74	19.46	18.34	19.20	20.30	20.80	20.54
7	Gadavari, East	102.46	0.06	0.003	...	18.48	1.18	1.20	0.16	0.21	5.99	25.32	20.90	22.98	27.29	22.12	24.55
8	Gadavari, West	103.58	0.003	0.003	...	7.33	1.78	2.56	0.27	0.35	7.58	22.64	21.36	21.98	25.46	24.07	24.75
9	Godavari	100.47	0.003	0.01	...	8.45	1.49	2.53	0.25	0.25	11.85	23.18	23.18	22.57	27.29	27.42	28.16
10	Gratir	108.37	...	0.001	...	7.23	1.44	3.30	0.25	0.32	10.68	23.85	23.03	23.45	25.52	25.97	26.27
11	Kistna	106.48	...	0.02	...	9.61	1.46	2.67	0.34	0.38	17.83	24.00	22.64	23.77	33.10	33.05	33.06
12	Kurnool	105.10	...	0.01	0.001	2.98	4.15	8.70	0.42	0.44	17.83	22.44	21.13	21.94	24.57	22.72	23.64
13	Madras	109.65	0.01	0.28	0.43	2.58	2.34	2.91	0.38	0.20	12.47	22.44	21.13	21.94	24.57	22.72	23.64
14	Madura	103.07	0.44	0.06	0.008	6.07	2.10	2.16	0.42	0.32	10.37	22.15	20.47	21.34	23.67	21.82	22.74
15	Malabar	102.57	0.07	0.06	...	6.79	1.59	1.18	0.42	0.32	10.37	22.15	20.47	21.34	23.67	21.82	22.74
16	Nellore	103.86	0.006	0.18	...	7.04	2.68	3.82	0.15	0.21	6.28	19.53	21.34	20.35	31.58	32.43	31.97
17	Nilgiris, The	109.12	0.006	0.06	0.02	5.40	2.20	1.75	0.34	0.29	11.97	22.63	21.65	22.06	23.19	22.80	23.24
18	North Arcot	103.69	0.02	0.03	0.004	6.45	1.66	1.43	0.19	0.19	7.76	20.10	18.13	19.06	22.34	20.20	21.12
19	Ramanad	100.93	0.66	0.32	0.08	6.82	1.41	1.22	0.66	0.21	9.52	20.66	19.46	19.77	21.81	21.71	21.62
20	Sal-m	102.27	0.08	0.07	...	4.47	1.65	1.68	0.24		12.49	22.82	21.40	21.89	24.53	23.55	24.06
21	South Arcot	103.94	0.18	0.63	0.002	6.65	1.56	1.53	0.33	0.27	9.51	20.55	19.47	20.01	24.71	23.36	24.03
22	South Kanara	98.07	0.02	0.04	...	3.79	2.24	1.48	0.26	0.48	16.52	22.51	21.20	21.83	26.51	25.08	25.73
23	Tanjore	97.56	0.14	0.28	...	3.79	2.24	1.48	0.26	0.48	16.52	22.51	21.20	21.83	26.51	25.08	25.73
24	Tinnevely	101.62	0.007	0.12	...	3.91	1.74	1.47	0.32	0.35	12.99	21.69	20.68	22.54	26.84	24.88	25.64
25	Trichinopoly	100.14	0.26	0.14	...	3.91	1.74	1.47	0.32	0.35	12.99	21.69	20.68	22.54	26.84	24.88	25.64
26	Vizagapatnam	100.43	0.002	0.02	...	13.64	0.88	1.17	0.24	0.17	6.20	23.37	21.29	22.32	28.47	25.67	27.01
27	Agencies (Ganjam and Vizagapatnam)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Grand Total for the Presidency	108.49	0.12	0.12	0.03	6.45	1.78	2.05	0.29	0.28	10.80	22.61	21.31	21.93	25.74	24.84	25.05
	Total of town circles in the Presidency.	103.86	0.10	0.26	0.11	4.00	2.54	3.75	0.37	0.43	12.80	24.72	24.02	24.38	25.61	27.72	28.31
	Total of rural circles in the Presidency.	108.42	0.12	0.10	0.002	6.55	1.68	1.52	0.27	0.25	10.43	22.38	20.89	21.57	25.36	23.89	24.56

No. III.—Deaths registered in the Districts (Rural Circles) and in the

Number.	Rural circles.	January.	February.	March.	April.	May.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A.—RURAL CIRCLES.						
1	Anantapur	2,570	1,918	2,187	2,106	1,872
2	Bellary	1,579	1,603	2,125	1,782	1,598
3	Chingleput	3,457	2,827	2,865	2,848	2,319
4	Chittoor	3,084	2,809	2,968	2,116	2,070
5	Coimbatore	5,509	3,825	3,183	3,149	3,440
6	Cuddapah	1,660	1,283	1,353	1,218	1,437
7	Ganjām	3,458	2,828	3,368	3,247	3,314
8	Godāvari, East	2,774	2,955	2,841	2,848	2,831
9	Godāvari, West	2,905	2,043	2,065	1,878	2,100
10	Guntūr	4,025	2,681	2,795	2,823	3,189
11	Kistna	2,376	1,651	1,718	1,558	1,925
12	Kurnool	1,516	1,506	1,694	1,804	1,894
13	Madura	5,381	3,655	2,985	2,863	2,981
14	Malabar	5,812	5,506	5,104	5,513	6,102
15	Nellore	2,981	2,370	2,167	2,035	2,233
16	Nilgiris, The	200	168	159	192	256
17	North Arcot	4,981	4,027	4,026	3,005	3,280
18	Ramnad	4,345	2,836	2,352	2,154	2,132
19	Salem	4,351	3,444	3,273	3,215	3,621
20	South Arcot	5,097	4,367	4,008	3,386	3,765
21	South Kanara	2,877	2,343	1,956	1,698	1,779
22	Tanjore	4,457	3,812	3,488	2,929	3,279
23	Tinnevely	6,006	3,908	3,138	2,888	2,846
24	Trichinopoly	4,141	2,799	2,384	2,147	2,558
25	Vizagapatam	4,870	3,809	3,941	3,434	3,595
Total for rural circles ...		80,959	71,068	67,471	62,169	66,484
Ratio per mille of population.*		25.83	22.35	19.17	18.24	18.88

* The ratio calculated with reference

Towns of the Madras Presidency during each month of the year 1922.

June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1,861	1,982	1,912	2,076	2,053	2,031	2,257	24,834
1,328	1,713	1,929	2,007	2,031	2,006	1,966	21,665
2,529	2,324	2,591	2,611	2,709	3,063	3,347	32,988
2,226	2,299	2,346	2,410	2,255	2,547	3,096	29,423
3,454	3,703	3,488	3,583	3,531	3,809	4,548	35,232
1,358	1,333	1,479	1,447	1,516	1,659	1,640	17,283
4,544	5,713	4,353	4,678	4,327	3,781	4,185	45,894
3,290	2,466	3,675	3,664	3,447	3,190	3,771	38,659
2,130	2,360	2,645	2,549	2,305	2,419	2,978	28,472
3,649	3,746	4,078	4,016	3,844	3,867	4,479	43,012
2,092	2,211	2,541	3,013	3,847	2,334	2,677	26,488
1,793	1,698	2,417	2,013	1,809	1,978	2,474	23,696
2,925	2,849	2,725	2,701	2,762	3,650	4,433	39,710
6,195	7,695	7,067	5,597	4,758	4,571	5,181	69,191
2,339	2,404	2,684	2,784	2,748	2,760	3,262	30,767
261	251	207	232	219	209	169	2,509
3,455	3,417	3,286	3,418	3,350	3,831	5,369	46,093
2,395	2,208	2,108	2,361	2,666	3,180	3,536	32,533
3,790	3,710	3,707	3,657	3,871	4,118	4,954	45,711
4,152	4,031	3,925	4,032	4,207	4,767	5,232	51,119
3,137	2,384	2,338	2,178	2,013	1,929	2,547	26,371
3,286	3,327	3,180	3,879	4,081	4,534	4,824	45,366
2,643	2,808	2,559	2,880	3,330	4,005	4,651	41,840
2,847	2,775	2,659	2,873	2,886	3,694	4,106	35,829
4,486	3,654	4,497	4,943	4,490	4,259	5,175	51,162
71,145	72,121	74,691	75,655	74,081	78,208	90,867	894,917
20.87	20.48	21.21	22.20	21.04	22.95	25.80	21.58

to the number of days in each month.

No. III.—Deaths registered in the Districts (Rural Circles) and in the

Districts.	Towns.	January.	February.	March.	April.	May.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
B.—Towns.						
Anantapur ...	Hindupur ...	41	28	18	16	24
	Anantapur ...	29	23	39	27	27
	Tadpatri ...	5	6	8	27	25
Bellary ...	Bellary ...	126	103	126	103	101
	Adoni ...	56	60	59	56	43
	Hospet ...	34	55	88	48	36
Chingleput ...	Conjeevaram ...	132	149	150	118	115
	Saidapet ...	72	53	55	63	59
	Chingleput ...	54	30	35	36	30
Chittoor ...	Chittoor ...	54	30	22	28	22
	Tirupati ...	57	46	33	29	41
Coimbatore ...	Coimbatore ...	233	196	164	175	209
	Erode ...	66	41	40	34	47
	Dharapuram ...	44	37	33	29	33
	Pollachi ...	43	43	35	38	28
	Tiruppur ...	24	23	32	24	12
	Udumalpet ...	24	20	22	13	17
Cuddapah ...	Cuddapah ...	49	49	46	43	43
	Proddatur ...	85	37	29	36	26
Gaujām ...	Berhampur ...	60	59	53	38	54
	Parlakimedi ...	40	23	33	33	31
	Chiccacola ...	23	18	18	18	18
Godāvari, East ...	Rajahmundry ...	118	125	141	126	147
	Cocanada ...	129	129	105	109	141
	P. dāpuram ...	17	24	27	30	25
Godāvari, West ...	Ellore ...	84	96	92	73	75
	Palakollu ...	24	20	10	27	17
Guntūr ...	Guntūr ...	129	132	135	144	145
	Tenali ...	42	40	24	28	28
	Chirala ...	41	15	21	24	37
	Ongole ...	41	31	21	29	43
	Narasaraopet ...	24	21	26	35	25
Kistna ...	Bezwada ...	115	117	126	95	88
	Masulipatam ...	107	103	116	117	101
Kurnool ...	Kurnool ...	55	79	83	61	85
	Nandyal ...	37	37	55	27	26
Madras ...	Madras ...	2,076	1,730	1,699	1,554	1,751
Madura ...	Madura ...	626	523	505	433	413
	Dindigul ...	159	117	79	78	93
	Bodinayakkannur ...	113	77	45	44	41
	Palni ...	52	49	33	36	39
	Periyakulam ...	72	76	61	53	50
Malabar ...	Kodaikanal ...	15	8	12	14	11
	Calicut ...	175	212	198	193	203
	Palghat ...	143	102	81	92	102
	Cannanore ...	63	50	76	54	61
	Tellicherry ...	57	66	70	50	53
	Cochin ...	55	60	50	47	34
Nellore ...	Nellore ...	128	118	124	118	129
Nilgiris, The ...	Ootacamund ...	37	41	41	49	42
	Coonoor ...	23	19	16	19	35
North Arcot ...	Vellore ...	182	157	137	129	107
	Gudiyattam ...	50	40	35	31	34
	Tiruvannamalai ...	76	75	53	66	44
	Vaniyambadi ...	48	59	61	19	17
	Tirupattur ...	58	43	23	30	21
	Walajapet ...	18	18	24	16	19

Towns of the Madras Presidency during each month of the year 1932—cont.

June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
17	21	17	17	17	24	25	265
28	30	27	26	30	22	20	328
7	10	34	16	8	15	18	179
80	108	149	132	155	140	122	1,450
56	75	70	61	58	71	79	744
37	37	46	43	29	29	49	531
139	111	120	124	111	140	158	1,567
43	50	58	61	57	63	62	696
38	35	33	37	87	34	39	438
23	26	31	29	29	27	36	360
49	27	29	39	36	36	63	485
229	157	180	219	185	194	215	2,366
45	37	33	43	37	44	60	432
23	33	25	35	37	34	30	398
42	45	43	37	43	44	52	493
17	27	21	24	28	20	51	303
15	14	21	23	22	27	23	241
31	44	44	47	45	48	38	537
21	40	40	39	25	42	42	412
54	64	76	94	74	64	63	753
32	35	34	31	33	33	43	406
20	15	14	18	22	22	34	238
114	167	163	154	152	144	180	1,731
134	113	152	139	138	123	141	1,558
13	18	24	17	28	22	27	272
93	59	102	111	76	67	131	1,059
23	22	23	25	31	21	32	285
155	145	179	172	178	150	165	1,829
41	38	36	71	58	58	58	522
30	17	25	25	25	36	35	331
53	30	42	44	51	45	68	498
37	29	26	29	35	34	44	375
119	102	154	182	172	134	123	1,527
121	117	130	135	140	109	98	1,394
66	60	91	67	51	73	62	838
18	31	37	33	24	35	44	404
1,782	1,615	1,632	1,739	2,004	2,150	2,304	22,036
402	533	354	359	399	492	500	5,344
91	76	94	84	79	123	85	1,158
50	46	55	33	51	53	49	657
23	35	34	42	42	42	44	471
39	44	64	41	46	60	65	677
13	12	17	8	10	11	15	146
222	344	335	256	222	174	211	2,750
98	133	144	102	67	94	151	1,329
65	71	75	73	45	58	66	756
62	83	71	91	53	50	48	775
36	47	44	48	38	49	39	544
125	99	131	156	158	131	169	1,584
64	42	46	40	45	54	43	544
38	23	19	30	24	25	24	295
124	136	126	142	117	150	197	1,704
38	82	40	34	43	50	60	477
38	48	54	52	79	62	73	720
30	18	40	44	25	42	33	436
32	23	28	34	26	44	30	390
14	19	14	15	19	21	41	238

No. III.—Deaths registered in the Districts (Rural Circles) and in the

Districts.	Towns.	January.	February.	March.	April.	May.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	B.—Towns—cont.					
Ramnad ...	Srivillipattur ...	104	78	64	65	68
	Virudhunagar ...	77	66	69	67	82
	Sivakasi ...	24	22	11	19	22
	Karaikudi ...	48	36	35	35	42
Salem ...	Salem ...	233	182	177	168	183
South Arcot ...	Cuddalore ...	98	137	121	84	113
	Chidambaram ...	76	77	74	58	54
	Villupuram ...	31	47	70	38	41
South Kanara ...	Mangalore ...	90	91	91	66	83
Tanjore ...	Kumbakonam ...	156	135	161	118	123
	Tanjore ...	222	181	160	166	154
	Negapatam ...	134	118	98	74	101
	Mayavaram ...	82	59	66	63	60
	Tiruvavur ...	47	40	31	30	51
	Mannargudi ...	47	39	29	35	46
Tinnevely ...	Tinnevely ...	157	135	119	82	92
	Palamcottah ...	157	116	96	78	78
	Tuticorin ...	238	141	149	113	104
Trichinopoly ...	Trichinopoly ...	388	354	268	279	282
	Srirangam ...	51	49	58	52	50
	Karur ...	53	35	33	22	27
Visagapatam ...	Vizagapatam ...	129	117	142	128	127
	Vizianagram ...	88	94	101	70	82
	Anakapalle ...	40	24	41	30	36
	Bimlipatam ...	21	14	13	8	26
	Total for towns.	9,307	8,130	7,835	7,049	7,475
	* Ratio per mille for towns ...	29.49	28.53	24.83	23.07	23.69
	Total for the province ...	100,206	79,196	75,306	69,218	73,959
	* Ratio per mille for the province.	26.06	22.85	19.68	18.64	19.28

* The ratio calculated with reference

Towns of the Madras Presidency during each month of the year 1932—cont.

June.	July.	August.	September.	October.	November.	December.	Total death registered during the year.
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
65	58	60	69	75	74	84	859
71	69	57	53	78	101	74	872
29	10	16	33	23	34	42	290
43	40	44	48	40	47	45	503
188	193	223	199	209	231	201	2,385
103	91	111	141	135	144	123	1,401
42	43	52	42	49	58	57	682
46	28	33	25	18	30	44	454
72	113	100	102	109	90	75	1,082
118	114	110	146	138	146	151	1,616
152	119	132	127	198	218	203	2,032
101	83	103	87	114	153	145	1,311
56	57	58	54	55	72	70	754
28	31	41	38	38	46	22	443
42	33	60	42	69	63	55	560
89	129	108	132	140	167	173	1,523
83	94	97	105	112	115	128	1,254
111	110	128	111	141	178	196	1,720
194	254	236	247	265	347	412	3,576
52	42	29	42	32	67	61	615
25	33	37	30	30	35	42	402
149	146	161	138	136	121	159	1,651
76	63	114	82	86	72	113	1,041
32	35	42	46	52	39	50	447
11	20	12	15	16	14	23	198
7,433	7,271	7,920	8,039	8,245	8,862	9,541	97,107
24.34	23.04	25.10	26.32	26.12	29.01	30.24	26.14
78,578	79,392	82,611	83,694	82,326	87,070	100,408	992,024
21.16	20.69	21.53	22.54	21.46	23.45	26.17	21.96

to the number of days in each month.

No. IV.—Deaths registered according to Age in the Districts (Rural)
(compiled with reference to G.O. Ms.

Not exceeding one month.							
Rural circles.	Males.			Females.			Total of columns 4 and 7.
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A.—RURAL CIRCLES.							
1. Anantapur	1,595	605	2,200	1,274	485	1,759	3,959
2. Bellary	1,012	641	1,653	825	524	1,349	3,002
3. Chingleput	2,017	810	2,827	1,530	634	2,164	5,021
4. Chittoor	1,808	747	2,555	1,183	624	1,807	4,727
5. Coimbatore	1,461	1,651	3,112	3,194	1,074	4,268	10,220
6. Cuddapah	1,133	426	1,558	780	368	1,148	2,706
7. Ganjam	2,512	1,344	3,856	2,074	1,034	3,108	6,964
8. Godavari, East ...	2,252	586	2,838	1,681	631	2,312	5,150
9. Godavari, West ...	2,116	694	2,810	1,644	482	2,126	4,936
10. Guntur	3,361	1,234	4,595	2,620	1,058	3,678	8,272
11. Kistna	1,635	788	2,423	1,515	574	2,086	4,559
12. Kurnool	1,632	763	2,395	1,341	639	2,080	4,435
13. Madura	2,957	1,070	4,027	1,839	851	2,690	6,117
14. Malabar	3,726	1,789	5,515	2,977	1,372	4,349	9,864
15. Nellore	2,281	821	3,106	1,698	739	2,437	5,545
16. Nilgiris, The	87	56	143	86	40	126	269
17. North Arcot	2,322	1,413	3,734	1,864	1,193	3,057	6,791
18. Ramnad	1,311	803	2,114	1,123	608	1,731	3,845
19. Salem	3,906	1,372	5,277	3,162	1,169	4,271	9,543
20. South Arcot	2,340	1,506	3,846	1,771	1,227	2,998	6,843
1. South Kanara	1,348	742	2,090	1,034	601	1,635	3,725
2. Tanjore	3,186	1,068	4,254	2,519	834	3,353	7,607
3. Tirunelveli	2,753	1,361	4,114	2,150	1,139	3,289	7,404
4. Trichinopoly	2,841	1,183	4,024	1,954	997	2,951	6,985
5. Vizagapatam	2,639	1,372	4,011	2,054	1,166	3,220	7,230
Total—Rural circles ...	56,943	24,692	81,635	44,157	19,800	63,957	145,592
total population according to the census of 1931	...	...	...	...	...	...	...
Ratio per mille of births	74.47	32.29	106.77	60.75	27.24	87.99	97.02

Circles) and Towns of the Madras Presidency during the year 1932
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.	
Males.	Females.	Total.	Males.	Females.	Total.	Male columns 4, 9 and 12.	Female columns 5, 10 and 13.	Total.	Males.	Females.
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
988	910	1,898	694	683	1,377	3,882	3,352	7,234	1,563	1,983
961	817	1,778	718	893	1,611	3,532	3,064	6,596	2,242	2,220
1,286	1,183	2,469	1,583	1,449	3,032	5,702	4,826	10,527	2,274	2,246
985	969	1,954	977	931	1,908	4,377	4,015	8,392	1,715	1,703
1,210	1,256	2,466	1,373	1,478	2,851	8,635	7,002	15,637	2,800	2,682
679	584	1,263	592	547	1,139	2,820	2,279	5,099	1,076	992
2,326	1,941	4,267	2,368	2,158	4,526	8,560	7,207	15,767	3,505	3,264
1,395	1,097	2,492	1,694	1,583	3,277	5,835	4,872	10,707	3,556	3,549
1,589	1,419	3,008	1,074	1,068	2,142	5,272	4,229	9,501	2,372	2,372
1,533	1,307	2,840	1,403	1,269	2,672	7,636	6,568	14,204	3,514	3,345
788	757	1,545	1,107	1,102	2,209	5,203	4,405	9,608	1,884	1,865
1,146	1,032	2,178	1,620	1,534	3,154	6,193	5,247	11,440	3,621	3,105
3,065	2,577	5,642	1,933	1,735	3,668	19,504	16,681	36,185	6,233	6,278
934	854	1,788	1,015	1,027	2,042	5,035	4,518	9,553	2,029	2,066
100	78	178	97	94	191	340	298	638	218	230
1,790	1,641	3,431	2,016	1,883	3,899	7,540	6,581	14,121	4,047	4,080
855	778	1,633	796	827	1,623	3,965	3,396	7,361	2,645	2,648
1,440	1,343	2,783	1,115	1,059	2,174	8,132	7,153	15,285	3,177	3,031
1,891	1,706	3,597	2,250	2,119	4,369	7,905	6,823	14,728	4,182	4,227
1,093	966	2,059	823	786	1,609	4,149	3,421	7,570	1,920	2,048
1,213	1,098	2,311	1,108	1,034	2,142	6,575	5,485	12,060	3,405	3,119
1,908	1,146	3,054	1,395	1,339	2,734	6,767	5,736	12,503	3,832	3,929
822	935	1,757	971	1,143	2,114	5,817	4,914	10,731	2,313	2,173
2,425	1,838	4,263	2,292	2,073	4,365	8,428	7,130	15,558	4,990	3,911
32,858	20,437	53,295	32,375	30,882	63,257	146,868	124,276	271,144	63,176	63,654
...	...	...	...	...	...	534,378	603,128	1,137,506	2,395,635	2,475,657
42.97	40.51	41.77	42.35	42.49	42.41	192.16	171.07	181.82	23.88	27.73

No. IV.—Deaths registered according to Age in the Districts (Rural Circles)
(compiled with reference to G.O. Ms. No. 602,

Rural circles—cont.	Five and under ten years.		Ten and under 15 years.		15 and under 20 years.		and under 30 years.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
A.—RURAL CIRCLES—cont.								
1. Anantapur ...	514	507	240	250	258	518	651	1,152
2. Bellary ...	480	484	233	169	263	353	395	866
3. Chingleput ...	793	762	279	219	622	710	810	1,151
4. Chittoor ...	563	553	337	272	341	560	775	1,229
5. Coimbatore ...	894	969	263	257	1,015	1,046	1,461	1,939
6. Cuddapah ...	341	331	183	165	211	352	478	840
7. Ganjam ...	906	876	604	508	619	862	1,226	1,598
8. Godavari, East ...	1,076	1,004	663	442	552	684	1,125	1,516
9. Godavari, West ...	656	679	332	341	332	514	726	1,133
10. Guntur ...	886	894	434	448	519	734	1,153	1,671
11. Kistna ...	525	513	278	264	283	592	730	1,053
12. Kurnool ...	520	436	237	263	252	371	613	907
13. Madura ...	1,007	952	205	257	303	398	1,386	1,730
14. Malabar ...	1,630	1,706	792	745	745	880	2,015	2,491
15. Nellore ...	605	623	323	331	369	518	893	1,098
16. Nilgiris, The ...	65	57	41	31	63	54	150	150
17. North Arcot ...	1,008	1,017	83	63	521	1,187	1,093	1,603
18. Ramnad ...	767	712	144	137	577	722	1,106	1,693
19. Salem ...	951	1,027	178	210	345	1,127	1,240	1,848
20. South Arcot ...	1,102	1,060	217	173	912	1,259	1,363	2,056
21. South Kanara ...	455	503	234	287	284	431	801	1,181
22. Tanjore ...	699	707	141	131	720	1,106	1,351	2,294
23. Tinnevely ...	816	760	218	233	593	781	1,007	1,406
24. Trichinopoly ...	610	649	275	325	479	713	1,063	1,379
25. Vizagapatam ...	1,090	1,003	653	630	652	838	1,511	2,143
Total for rural circles.	18,873	18,035	7,448	7,241	13,517	17,910	25,975	36,473
Total population according to the census of 1931 ...	2,698,875	2,666,489	2,481,588	2,369,893	1,760,561	1,906,254	3,352,000	3,950,588
Ratio per mille of births for age periods 0 to 1 yr. and per milles of population for age periods above 1 year ...	6.99	7.10	3.00	3.06	7.68	9.50	7.41	9.23

and Towns of the Madras Presidency during the year 1932 dated 30th March 1931)—cont.

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.
(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
817	890	950	689	1,022	781	2,323	2,058	12,626	12,208
759	729	783	555	710	589	1,617	1,495	11,114	10,551
991	959	1,043	820	1,105	991	3,404	3,276	17,031	16,957
912	1,075	1,135	937	1,312	1,057	3,278	3,005	14,563	14,555
1,641	1,577	1,370	1,099	1,372	1,133	4,090	4,086	23,381	21,851
639	627	687	593	833	659	1,656	1,482	5,921	5,359
1,322	1,307	1,029	1,258	2,061	1,896	2,739	3,431	23,102	22,992
1,021	1,064	1,211	940	1,392	1,216	3,237	3,620	19,643	19,016
664	745	791	651	835	733	2,348	2,764	14,261	14,221
1,169	1,118	1,233	958	1,515	1,319	4,242	3,840	22,283	20,729
655	682	720	559	877	687	2,300	2,002	13,653	12,935
717	745	823	578	829	759	1,751	1,607	11,824	11,272
1,472	1,437	1,453	1,183	1,362	1,141	3,361	3,368	20,233	19,417
2,309	2,644	2,586	1,804	2,292	1,866	6,009	7,026	34,941	34,250
904	984	998	838	1,165	944	3,444	3,358	15,636	15,081
125	127	96	81	95	104	115	1,300	1,269	1,269
1,301	1,305	1,438	1,069	1,416	1,233	4,613	4,437	23,490	22,633
1,316	1,361	1,478	1,225	1,436	1,236	2,867	3,108	16,242	16,241
1,529	1,532	1,548	1,505	1,512	1,424	3,873	3,339	23,035	22,626
1,781	1,719	1,397	1,376	2,104	1,854	4,514	4,317	26,067	25,052
889	963	1,027	735	984	870	2,359	2,846	13,106	13,265
1,579	1,844	1,882	1,764	1,968	1,823	5,039	5,493	22,390	23,066
1,163	1,192	1,341	1,052	1,107	1,176	3,931	4,254	21,075	20,565
1,271	1,340	1,265	1,063	1,453	1,060	3,675	4,006	17,561	17,934
1,753	1,704	2,031	1,540	2,015	1,969	3,790	4,209	25,091	25,071
28,736	29,719	31,243	24,072	32,856	28,610	89,555	83,775	454,327	440,590
2,586,965	2,910,328	2,037,119	1,937,688	4,215,481	1,335,634	965,086	1,068,212	20,436,695	21,064,851
9.95	10.21	15.31	12.89	26.37	23.15	83.11	83.09	22.23	20.92

No. IV.—Deaths registered according to Age in the Districts (Rural)
(compiled with reference to G.O. M.S. No.

Towns.	Not exceeding one month.							Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total.		
	Males.			Females.			Total of cols. (4) and (7).	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
B.—Towns.																
<i>Anantapur District.</i>																
1. Hindupur ...	11	10	21	9	4	13	34	10	13	23	11	8	19	42	34	76
2. Anantapur ...	8	7	15	9	4	13	22	10	8	18	11	9	20	36	30	66
3. Talapatu ...	6	2	8	4	1	5	13	9	5	14	8	8	16	23	18	41
<i>Bellary District.</i>																
4. Bellary ...	34	32	66	24	33	57	123	73	64	137	60	46	106	205	167	372
5. Adoni ...	30	18	48	28	10	38	86	34	15	49	17	17	34	99	70	169
6. Hospet ...	10	24	34	5	14	19	53	30	28	58	12	14	26	76	61	137
<i>Chingleput District.</i>																
7. Gonnaveeram ...	80	37	117	80	23	103	220	47	30	77	45	37	82	203	176	379
8. Saidapet ...	33	19	52	26	12	38	90	44	28	72	33	19	52	129	85	214
9. Chingleput ...	16	13	29	11	11	22	51	22	19	41	17	16	33	68	57	125
<i>Chittoor District.</i>																
10. Chittoor ...	14	4	18	11	2	13	31	17	7	24	10	7	17	45	27	72
11. Talapatu ...	19	7	26	19	4	23	49	29	20	49	12	11	23	67	51	118
<i>Coimbatore District.</i>																
12. Coimbatore ...	139	59	198	91	49	140	338	76	81	157	65	53	117	339	273	612
13. Erode ...	37	14	51	25	11	36	87	11	21	32	10	10	20	72	67	139
14. Dharmaparam ...	26	15	41	23	7	30	73	11	4	15	15	7	22	67	43	110
15. Pollachi ...	38	21	59	33	12	45	104	14	12	26	8	11	19	81	68	149
16. Tiruppur ...	26	6	32	14	2	16	48	5	12	17	6	5	11	43	33	76
17. Udumalpet ...	10	11	21	19	6	25	46	7	5	12	6	6	12	31	36	67
<i>Cuddapah District.</i>																
18. Cuddapah ...	26	12	38	23	11	34	72	16	17	33	16	13	29	70	64	134
19. Proddatur ...	22	6	28	17	4	21	49	15	9	24	11	17	28	54	47	101
<i>Ganjām District.</i>																
20. Berhampur ...	25	13	37	20	13	33	70	39	22	61	21	19	40	97	74	171
21. Parakimedi ...	14	11	25	14	7	21	46	14	14	28	18	12	30	57	47	104
22. Chicacole ...	14	4	18	4	3	7	27	19	16	35	3	3	6	40	26	66
<i>Gōdāvari, East District.</i>																
23. Rajahmundry ...	54	33	87	46	20	66	153	130	136	266	66	69	135	283	262	545
24. Cocanada ...	61	19	80	23	17	40	130	73	74	147	67	57	124	230	171	401
25. Peddapuram ...	8	2	10	6	3	9	19	6	6	12	11	11	22	27	26	53
<i>Gōdāvari, West District.</i>																
26. Ellore ...	27	8	35	34	10	44	69	59	46	105	29	22	51	123	132	255
27. Palakole ...	16	3	19	12	6	18	37	20	16	36	13	12	25	52	40	92
<i>Guntur District.</i>																
28. Guntur ...	81	46	127	58	25	83	213	134	121	255	63	66	129	300	273	573
29. Tenali ...	14	5	19	11	4	15	34	48	34	82	11	8	19	78	67	145
30. Chirala ...	8	4	12	20	6	26	38	30	9	39	13	9	22	55	44	99
31. Ongole ...	22	14	36	11	11	22	58	22	22	44	11	7	18	73	51	124
32. Narasaraopet ...	23	8	31	16	8	24	55	21	13	34	13	9	22	45	46	91
<i>Kistna District.</i>																
33. Bezvada ...	93	23	116	63	43	106	224	112	125	237	66	51	117	285	282	567
34. Masulipatam ...	83	33	121	55	22	77	198	115	121	236	41	39	80	277	237	514

Circles) and Towns of the Madras Presidency during the year 1932
602, P.H., dated 30th March 1931)—cont.

One and under five years.		Five and under ten years.		Ten and under 15 years.		15 and under 20 years.		20 and under 30 years.		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.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
17	17	6	7	5	5	7	5	9	12	6	15	4	6	12	6	31	18	140	125
15	21	9	5	3	7	3	12	11	24	21	22	25	7	17	6	24	29	163	162
17	13	12	3	7	1	6	10	2	4	7	7	6	...	11	6	17	9	108	71
168	134	18	25	9	14	10	36	30	76	43	55	40	27	48	32	158	189	748	702
82	67	11	16	5	14	3	19	20	45	26	26	18	19	19	7	105	78	383	361
56	44	9	11	2	5	8	11	16	30	21	29	25	14	16	9	97	62	265	268
103	93	19	24	21	25	18	38	53	69	58	68	70	48	74	54	168	186	786	781
51	59	11	7	10	4	6	12	19	21	22	22	28	23	37	26	70	65	372	324
39	20	7	12	9	4	6	14	16	24	24	13	17	18	21	12	26	42	222	216
17	11	1	4	4	2	4	10	20	29	19	22	21	8	9	6	49	48	189	171
27	29	7	9	3	3	6	18	14	26	19	15	19	13	18	15	65	68	235	250
196	187	47	41	19	23	34	38	105	140	95	109	102	60	81	67	190	221	208	158
37	27	14	9	4	6	9	9	21	35	30	21	19	22	7	54	54	279	253	
33	32	12	4	2	2	9	11	12	18	16	20	22	12	8	8	33	34	214	184
37	28	6	7	9	6	8	13	21	22	26	24	18	13	27	15	35	43	268	240
21	21	6	7	6	3	4	6	13	15	12	14	9	8	11	6	37	28	162	141
17	14	1	3	3	2	...	4	12	12	10	7	16	4	8	6	31	26	181	110
23	26	7	9	8	7	9	19	23	33	23	23	31	12	28	13	51	41	291	246
37	22	5	7	3	9	6	9	16	35	15	19	12	12	19	18	35	33	202	216
46	40	16	8	11	4	12	24	31	34	29	30	38	21	50	24	66	96	378	355
25	26	6	8	4	3	3	7	13	13	17	17	18	9	13	17	46	57	202	204
9	10	2	4	3	4	2	2	7	7	8	12	10	5	15	7	64	29	139	108
148	98	17	25	10	19	20	40	64	82	52	55	68	49	57	69	163	159	882	849
123	120	33	26	12	19	17	28	70	62	69	44	67	42	55	52	145	183	911	747
25	14	2	7	4	8	2	4	14	19	20	7	11	5	15	5	27	39	147	125
47	53	20	18	9	10	8	19	36	51	47	50	60	31	69	64	188	133	557	532
20	16	3	7	1	3	3	5	7	9	10	11	8	4	13	19	31	26	148	137
105	89	37	26	19	13	25	31	104	92	67	89	91	55	94	102	115	76	983	846
28	19	5	10	5	1	12	13	24	32	30	14	15	13	25	24	61	51	286	294
18	13	8	5	4	1	4	5	15	16	11	8	14	7	15	22	40	30	181	166
22	26	5	6	3	4	7	16	29	34	28	20	27	12	25	9	55	47	274	224
28	16	7	10	2	3	5	4	11	26	9	12	22	13	24	14	38	20	211	164
98	70	20	14	15	6	18	31	60	75	66	38	52	31	75	86	121	87	801	720
70	84	14	17	8	12	24	27	43	41	35	55	63	20	72	85	133	101	712	685

No. IV.—Deaths registered according to Age in the Districts (Rural)
(compiled with reference to G.O. Mis. No.

Towns.	Not exceeding one month.							Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total.		
	Males.			Females.			Total of cols. (4) and (7).	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
B.—Towns—cont.																
Kurnool District.																
35. Kurnool ..	41	25	66	35	12	47	113	35	29	64	21	23	44	122	99	221
36. Nandyal ..	23	8	31	18	8	26	67	15	4	19	7	5	12	53	35	88
Madras.																
37. Madras ...	823	547	1,369	629	426	1,055	2,424	1,293	1,192	2,485	845	820	1,665	3,507	3,067	6,574
Madura District.																
38. Madura ...	298	148	446	224	109	333	773	186	167	353	193	160	353	825	660	1,485
39. Dindigul ..	76	42	118	51	28	79	197	47	33	80	21	26	47	186	138	324
40. Bodinayakanur ..	63	40	103	45	12	57	120	28	21	49	19	16	35	110	94	204
41. Palni ..	43	9	52	40	19	59	111	15	10	25	8	10	18	75	79	154
42. Periyakulam ..	54	23	77	46	16	62	139	26	21	47	26	29	55	129	112	241
43. Kodaikanal ..	11	5	16	3	2	5	21	12	6	18	5	6	11	33	17	50
Malabar District.																
44. Calicut ...	74	75	149	56	57	113	262	76	77	153	47	43	90	273	233	506
45. Palghat ...	59	41	100	48	31	79	179	55	47	102	21	21	42	176	147	323
46. Cannanore ...	31	9	40	11	7	18	58	34	15	49	12	17	29	86	59	136
47. Tellicherry ...	23	14	37	8	13	21	58	32	25	57	13	7	20	82	53	135
48. Cochin ...	27	12	39	26	11	37	76	19	15	34	16	12	28	74	64	138
Nellore District.																
49. Nellore ...	57	40	97	48	25	73	170	77	72	149	32	42	74	206	187	393
Nilgiri District.																
50. Ootacamund ...	36	12	48	28	10	38	86	26	32	58	23	19	42	97	39	136
51. Coonoor ...	11	4	15	6	7	13	28	8	11	19	9	12	21	32	36	68
North Arcot District.																
52. Vellore ...	91	48	139	67	43	110	249	113	68	181	51	55	106	303	233	536
53. Gudiyattam ...	25	6	31	13	6	19	60	28	17	45	15	11	26	74	47	121
54. Tiruvannamalai ..	35	22	57	37	11	48	105	20	25	45	17	12	29	84	55	139
55. Vaniyambadi ...	22	4	26	14	9	23	49	21	9	30	21	11	32	68	43	111
56. Tirupattur ...	25	8	33	15	5	20	53	10	9	19	11	7	18	54	36	90
57. Walajpet ...	7	11	18	11	5	16	34	6	8	14	2	6	8	26	30	56
Ramnad District.																
58. Srivilliputtur ...	45	36	81	33	29	62	143	24	25	49	23	22	45	128	109	237
59. Viradhunagar ...	42	25	67	33	21	54	121	27	19	46	26	33	59	130	166	296
60. Sivakasi ...	17	6	23	15	6	21	44	3	4	7	4	11	15	30	36	66
61. Karaikudi ...	29	7	36	15	5	20	56	19	20	39	11	11	22	66	61	127
Salem District.																
62. Salem ...	133	82	215	101	49	150	365	125	82	207	87	74	161	427	306	733
South Arcot District.																
63. Cuddalore ...	71	54	125	54	40	94	219	64	54	122	43	39	82	233	187	420
64. Chidambaram ...	36	11	47	26	16	42	89	26	18	44	19	16	35	92	76	168
65. Villupuram ...	15	4	19	11	2	13	32	13	7	20	13	8	21	45	23	73
South Kanara District.																
66. Mangalore ...	41	34	75	22	13	35	100	21	26	47	31	21	52	117	82	199

Circles) and Towns of the Madras Presidency during the year 1932
602, P.H., dated 30th March 1931)—cont.

	One and under five years.		Five and under ten years.		Ten and under 15 years.		15 and under 20 years.		20 and under 30 years.		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.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	
	67 21	74 19	15 9	20 3	8 2	5 6	4 9	24 12	21 25	43 35	40 22	27 12	38 25	29 7	32 17	24 14	69 44	88 34	436 227	432 177	
	1,734	1,799	384	338	211	206	252	391	829	975	842	748	929	898	890	545	1,908	1,834	11,535	10,591	
	451 95 44 38 61 12	512 197 56 39 52 15	87 34 13 6 6 4	93 28 27 7 23 2	60 16 13 6 23 2	49 22 18 5 10 ...	54 11 8 6 14 ...	105 20 21 3 10 2	213 59 27 14 22 11	244 57 27 14 19 4	205 45 23 24 12 4	198 49 23 12 12 2	211 31 25 13 25 4	135 26 13 16 22 6	228 40 19 17 16 6	139 31 14 9 8 1	421 87 36 36 42 8	447 73 41 49 76 13	2,757 613 323 247 336 84	2,587 545 334 224 341 62	
	212 126 48 46 47	250 115 65 59 36	75 35 18 14 8	78 28 14 21 11	35 19 12 10 4	36 12 7 13 3	59 18 12 7 11	54 24 9 8 8	153 41 29 59 25	121 65 41 47 15	163 51 38 52 33	140 48 28 32 25	118 61 40 53 32	87 37 29 29 13	164 69 39 35 26	87 43 42 23 11	240 104 72 81 51	233 177 99 105 44	1,431 603 331 494 311	1,319 636 375 331 233	
	124	105	26	26	18	24	20	44	61	99	52	76	68	32	62	39	139	156	796	783	
	41 22	29 24	4 10	13 5	5 8	6 5	12 5	5 7	15 13	27 13	12 13	20 10	21 17	11 4	17 11	12 6	56 39	49 21	283 164	261 131	
	165 38 100 71 24 22	109 28 78 29 27 19	21 19 20 7 3 5	27 7 15 12 6 4	12 7 9 14 2 1	17 3 6 14 5 4	17 8 11 6 7 2	39 11 10 14 14 9	57 11 27 26 18 10	99 27 36 23 24 11	57 25 26 12 19 9	77 24 18 16 25 7	66 31 29 23 16 17	48 11 12 20 8 5	53 15 23 23 13 12	45 5 12 28 10 7	155 66 76 88 28 47	169 41 370 218 194 23	851 273 350 218 196 121		
	72 24 36	86 98 30 38	17 13 2 9	19 25 6 12	14 5 2 5	9 9 2 7	11 13 3 6	20 14 1 14	26 36 7 24	32 44 13 38	36 34 11 22	32 24 8 32	38 30 15 24	28 26 19 23	26 26 15 23	21 23 15 14	13 24 5 16	77 55 36 20	62 74 39 41	430 429 149 231	429 443 141 272
	154	189	57	56	25	31	20	47	71	106	72	83	69	68	76	41	232	225	1,233	1,152	
	86 31 30	111 32 24	21 3 6	16 9 5	13 5 5	19 7 4	26 11 10	22 20 6	44 27 7	74 38 21	57 22 15	60 39 16	43 12 14	48 29 17	51 41 23	31 18 1	132 66 77	111 73 86	716 331 232	685 361 454	
	96	97	22	23	12	22	9	20	52	48	43	55	38	31	48	25	129	123	566	520	

No. IV.—Deaths registered according to Age in the Districts (Rural)
(compiled with reference to G.O. Mis. No.

Towns.	Not exceeding one month.							Over one month and not exceeding six months.			Over six months and not exceeding twelve months.			Total.		
	Males.			Females.			Total of cols. (4) and (7).	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
	Under one week.	Over one week.	Total.	Under one week.	Over one week.	Total.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
B.—Towns—cont.																
Tanjore District.																
67. Kumbakonam ...	79	31	110	64	29	93	203	69	34	102	49	35	84	227	102	729
68. Tanjore ...	74	75	159	43	46	89	239	80	49	129	61	55	115	291	153	1043
69. Nagapattinam ...	57	39	96	53	19	72	168	55	52	107	33	24	57	184	55	512
70. Mayavaram ...	42	18	60	31	19	50	110	22	15	43	19	16	35	107	31	358
71. Tiruvarur ...	17	11	28	16	12	28	56	23	12	35	9	10	19	69	30	117
72. Mannargudi ...	31	16	46	24	9	33	81	25	12	37	14	17	31	59	32	151
Tinnevely District.																
73. Tinnevely ...	119	71	199	87	55	142	339	57	46	103	22	25	47	279	113	492
74. Palamcottah ...	151	54	205	99	51	150	341	22	23	51	23	19	42	270	122	442
75. Tuticorin ...	81	43	124	68	42	110	231	67	71	138	56	43	99	247	124	471
Trichinopoly District.																
76. Trichinopoly ...	130	67	227	86	57	143	370	113	96	209	100	89	189	440	128	746
77. Srirangam ...	24	19	43	20	15	35	73	17	13	39	5	9	14	65	37	122
78. Karur ...	27	9	36	20	6	26	61	9	6	15	9	9	18	54	11	95
Vizagapatam District.																
79. Vizagapatam ...	85	23	116	39	21	71	187	104	173	221	76	60	131	285	216	544
80. Vizianagaram ...	96	0	96	34	16	50	125	67	49	116	37	23	70	179	132	411
81. Anakapalle ...	23	1	24	13	5	18	44	22	19	48	15	10	25	67	39	117
82. Bimlipatnam ...	8	2	10	6	2	8	18	16	6	22	7	12	19	33	26	59
Total for towns	4,509	2,443	6,954	3,361	1,830	5,242	12,196	4,922	3,195	8,555	3,053	2,579	5,832	14,629	20,615	70,560
Total population according to the census of 1931	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ratio per mille of births for age periods 0 to 1 year and per mille of population for age periods above 1 year	64.83	32.15	98.98	50.63	28.31	78.94	89.71	60.45	39.71	63.15	43.89	41.85	42.69	210.32	180.51	193.76
Total for the province	67,452	27,137	94,589	47,519	21,680	69,199	1,37,738	37,480	33,402	70,880	35,428	33,681	69,089	161,497	136,262	297,759
Total population according to the census of 1931	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ratio per mille of births for age periods 0 to 1 year and per mille of population for age periods above 1 year	73.63	32.64	106.23	59.81	27.33	87.74	97.01	41.98	42.11	43.62	42.43	42.44	42.52	113.50	171.80	112.93

NOTE.—Calculated on the population for which vital statistics were recorded including

Circles) and Towns of the Madras Presidency during the year 1932
602, P.H., dated 30th March 1931)—cont.

	One and under five years.		Five and under ten years.		Ten and under 15 years.		15 and under 20 years.		20 and under 30 years.		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.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
29-45	80	58	16	22	12	14	19	37	49	82	79	67	79	59	88	59	167	201	828	791
29-55	104	105	32	27	24	19	39	36	73	106	96	74	101	60	101	70	231	235	1,073	959
30-45	47	63	16	14	12	10	28	53	69	69	54	70	62	52	74	47	139	162	653	638
30-55	47	47	11	11	6	6	9	10	21	39	28	27	42	26	17	21	78	83	389	385
31-45	23	33	6	7	4	3	3	23	28	19	19	19	19	13	21	14	54	45	231	212
31-55	31	46	6	4	4	4	3	3	23	28	25	21	20	18	26	20	66	77	253	277
32-45	123	141	14	24	13	11	6	14	41	58	58	39	54	44	67	43	122	161	777	746
32-55	161	165	14	15	4	11	10	10	24	27	47	67	58	82	45	29	115	139	643	611
33-45	191	194	33	26	18	20	18	33	46	70	64	48	66	54	45	45	124	156	850	879
33-55	244	244	67	60	43	43	43	84	148	227	129	163	144	101	140	114	323	356	1,780	1,796
34-45	301	315	8	10	4	5	5	14	17	23	13	22	33	28	37	23	93	72	306	369
34-55	339	339	4	4	5	7	9	6	19	24	7	21	33	15	16	11	50	33	213	189
35-45	353	353	27	27	18	17	21	19	50	54	101	71	90	45	73	77	97	101	808	753
35-55	377	377	32	32	18	10	9	21	38	43	32	35	40	21	30	25	98	108	528	515
36-45	392	392	12	12	6	4	8	14	21	20	18	8	16	16	39	19	47	56	350	217
36-55	407	407	4	4	1	1	3	11	21	11	6	6	4	6	8	12	20	15	93	100
37-45	421	421	1,662	1,662	988	1,041	1,184	1,922	3,620	4,671	3,870	3,717	4,063	2,686	4,043	2,924	8,801	7,421	1,877,529	1,877,529
37-55	451	451	1,662	1,662	988	1,041	1,184	1,922	3,620	4,671	3,870	3,717	4,063	2,686	4,043	2,924	8,801	7,421	1,877,529	1,877,529
38-45	466	466	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
38-55	481	481	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
39-45	496	496	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
39-55	511	511	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
40-45	526	526	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
40-55	541	541	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
41-45	556	556	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
41-55	571	571	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
42-45	586	586	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
42-55	601	601	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
43-45	616	616	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
43-55	631	631	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
44-45	646	646	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
44-55	661	661	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
45-45	676	676	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
45-55	691	691	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
46-45	706	706	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
46-55	721	721	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
47-45	736	736	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
47-55	751	751	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
48-45	766	766	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
48-55	781	781	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
49-45	796	796	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
49-55	811	811	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
50-45	826	826	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
50-55	841	841	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
51-45	856	856	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
51-55	871	871	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
52-45	886	886	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
52-55	901	901	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
53-45	916	916	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
53-55	931	931	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
54-45	946	946	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
54-55	961	961	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
55-45	976	976	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
55-55	991	991	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
56-45	1006	1006	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
56-55	1021	1021	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
57-45	1036	1036	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
57-55	1051	1051	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
58-45	1066	1066	2,254	2,254	1,343	1,343	1,584	2,522	4,836	6,396	5,146	4,993	5,336	3,536	5,336	4,149	10,620	9,146	2,324,431	2,324,431
58-55	1081																			

No. V.—Deaths registered according to Classes in the Districts of the Madras Presidency during the year 1932.

Population for which returns were received.												
Number.	Districts.	Indian Christians.		Muhammadans.		Hindus.		Other classes.		Total.		Total.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	3,153	2,862	50,515	48,439	484,967	468,801	621	522	530,256	510,624	1,049,880
2	Bellary	3,350	3,273	54,191	49,613	434,332	422,093	834	498	462,407	476,477	969,284
3	Chingleput	18,005	18,478	19,563	17,501	736,101	780,036	878	441	835,017	816,414	1,651,431
4	Chittoor	5,235	5,197	41,774	38,344	691,281	685,128	16	10	738,216	708,674	1,446,890
5	Coimbatore	23,567	21,779	29,335	27,029	1,164,509	1,177,098	136	57	1,217,407	1,225,968	2,443,375
6	Cuddalore	18,554	18,054	64,175	60,366	401,118	387,074	18	9	453,895	405,478	949,368
7	Ganjām	1,265	1,257	2,849	2,638	923,312	1,006,035	13,673	12,183	941,100	1,112,111	2,053,211
8	Godavari, East	14,392	14,478	14,781	15,061	916,739	938,700	3,015	2,709	918,927	970,908	1,889,835
9	Godavari, West	30,546	32,070	12,979	12,623	558,636	572,404	120	113	602,301	620,710	1,223,011
10	Guntur	120,598	117,046	80,956	76,610	827,075	812,758	290	118	1,028,919	1,008,613	2,037,532
11	Kistna	51,920	49,116	32,228	30,779	551,147	538,376	239	140	635,584	618,371	1,253,955
12	Kurnool	57,562	56,614	74,791	70,770	407,752	397,280	97	16	620,202	604,685	1,224,887
13	Madras	19,870	19,006	38,341	31,650	273,681	246,500	1,950	974	338,822	293,170	631,992
14	Madurai	40,782	41,583	44,848	45,439	994,914	1,026,362	32	23	1,026,706	1,113,607	2,140,313
15	Malabar	31,257	31,496	569,032	594,421	1,113,473	1,180,091	437	546	1,714,449	1,810,354	3,524,803
16	Nellore	32,184	32,773	51,960	51,232	659,834	657,554	14	3	743,934	741,592	1,485,526
17	Nizampur, The	11,312	10,411	7,567	7,251	70,996	60,057	443	279	80,448	75,008	165,456
18	North Arcot	21,166	20,716	67,793	68,442	1,037,353	1,040,836	443	4,769	1,130,978	1,134,766	2,265,744
19	Ramanad	46,434	51,346	49,940	71,201	775,651	844,932	23	11	872,098	966,710	1,838,808
20	Salem	11,277	11,343	37,091	29,791	1,167,762	1,184,563	58	40	1,221,188	1,221,377	2,442,525
21	South Arcot	35,622	35,189	38,486	37,564	1,147,860	1,153,583	2,503	2,434	1,224,591	1,220,020	2,444,611
22	South Kanara	58,000	63,029	28,099	92,111	512,340	548,847	4,465	4,143	663,804	708,150	1,371,954
23	Tanjore	44,118	47,059	64,213	81,407	1,034,852	1,113,136	325	298	1,133,709	1,241,930	2,375,639
24	Tinnevely	107,185	119,222	57,428	66,907	826,079	872,921	16	3	986,657	1,059,083	2,045,740
25	Trichinopoly	49,078	52,247	35,851	36,655	848,689	883,416	271	55	933,883	977,375	1,911,258
26	Vizagapatnam	54,45	5,068	11,740	11,914	1,168,068	1,229,406	5,228	4,682	1,190,491	1,231,100	2,421,591
	Total, Madras Presidency	843,177	861,906	1,430,476	1,373,116	19,788,864	20,302,687	40,715	34,856	22,303,255	23,572,625	45,875,880

No. V.—Deaths registered according to Classes in the Districts of the Madras Presidency during the year 1932—cont.

Number of deaths registered.												
Number.	Districts.	Indian Christians.		Muhammadans.		Hindus.		Other classes.		Total.		Total.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	46	49	1,010	1,007	11,846	11,341	137	130	13,089	12,567	25,606
2	Bellary	47	56	1,235	1,179	11,155	10,560	73	85	12,510	11,834	24,320
3	Chingleput	262	240	327	328	17,680	16,881	142	129	18,111	17,278	35,689
4	Chittoor	110	117	721	642	14,458	14,215	30	2	15,292	14,978	30,269
5	Coimbatore	245	284	526	473	24,842	23,158	20	22	25,533	23,937	49,570
6	Cuddalore	343	334	1,104	1,085	7,858	7,391	12	2	9,417	8,615	18,232
7	Ganjām	46	43	121	127	23,675	23,018	90	71	23,832	23,359	47,091
8	Godavari, East	254	198	383	396	20,790	20,097	47	48	21,483	20,737	42,220
9	Godavari, West	573	608	288	271	14,057	13,988	30	20	14,958	14,888	29,846
10	Guntur	2,198	2,028	1,760	1,538	20,268	18,684	492	89	24,218	22,349	46,567
11	Kistna	948	881	826	705	13,353	12,668	44	39	15,166	14,243	29,409
12	Kurnool	705	756	1,625	1,586	10,185	9,585	22	4	12,487	11,881	24,368
13	Madras	505	47	1,410	1,331	8,617	8,616	3	...	11,535	10,501	22,036
14	Madurai	771	771	891	834	22,953	21,930	8	5	24,623	23,540	48,163
15	Malabar	665	637	12,850	12,480	24,445	24,035	90	42	38,151	37,194	75,345
16	Nellore	646	662	1,022	975	14,811	14,231	3	1	16,482	15,869	32,351
17	Nizams, The	204	204	144	144	1,303	1,158	91	35	1,747	1,601	3,348
18	North Arcot	327	349	1,298	1,270	23,589	22,693	271	243	25,483	24,575	50,058
19	Ramanad	671	708	901	825	15,843	15,703	6	2	17,531	17,526	35,057
20	Salem	214	245	457	525	23,698	23,004	8	4	24,318	23,778	48,096
21	South Arcot	582	588	659	650	25,710	24,739	395	382	27,840	26,810	54,656
22	South Kanara	576	1,017	1,502	1,600	11,086	11,182	98	112	13,662	13,781	27,453
23	Tanjore	589	563	1,155	1,276	23,927	24,463	83	86	25,764	24,328	50,092
24	Tinnevely	2,189	2,041	1,290	1,337	19,864	19,410	2	1	23,345	22,792	46,137
25	Trichinopoly	185	185	399	673	18,726	18,444	50	41	20,260	20,232	40,492
26	Vizagapatnam	38	43	209	210	27,561	26,355	30	48	27,838	26,656	54,494
	Total, Madras Presidency	14,804	14,700	34,586	33,607	458,321	447,392	1,850	1,704	504,521	487,503	992,024

No. V.—Deaths registered according to Classes in the Districts of the Madras Presidency during the year 1932—cont.

Rates of deaths per 1,000 of population.													
Number.	Districts.	Indian Christians.				Muhammadans.		Hindus.		Other classes.		Total.	
		Males.		Females.		Males.		Females.		Males.		Females.	
		(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	
1	Anantapur	14.53	17.12	19.98	20.79	24.43	24.80	220.61	219.04	24.18	21.60	21.39	21.60
2	Bellary	14.02	17.10	22.73	23.76	25.68	21.26	78.16	170.68	25.38	24.93	21.06	24.93
3	Chingleput	14.08	13.01	16.78	15.73	22.20	21.35	175.74	232.51	22.05	21.16	21.60	21.16
4	Chittoor	21.00	22.51	17.28	16.74	20.91	21.37	187.50	206.00	20.71	21.13	20.92	21.13
5	Coinbatore	10.43	13.04	17.93	17.50	21.32	19.65	47.06	3.5.98	21.05	19.52	20.28	19.52
6	Cuddalore	18.18	18.16	17.20	17.26	19.84	19.10	250.00	222.22	19.06	18.44	19.29	18.44
7	Cuddalore	36.34	34.21	42.27	45.18	25.64	20.97	6.57	5.82	25.32	20.80	22.93	20.80
8	Godavari, East	17.14	13.57	25.90	26.28	22.69	21.41	15.53	17.72	22.61	21.36	21.93	21.36
9	Godavari, West	18.76	18.98	22.95	21.48	25.16	21.21	250.00	176.48	21.53	23.38	24.09	23.38
10	Guntur	17.40	17.40	21.73	21.05	24.50	22.99	317.24	754.53	23.85	23.19	22.87	23.19
11	Kistna	18.16	16.92	25.63	22.90	24.23	23.52	15.25	390.00	23.55	23.03	23.45	23.55
12	Kurnool	19.76	20.64	21.73	21.70	24.85	24.13	226.80	250.00	21.00	23.54	23.77	23.54
13	Madras	25.12	23.69	36.76	42.00	35.14	35.26	1.54		34.05	35.09	34.81	35.09
14	Madras	18.90	18.35	19.82	19.27	23.07	21.35	250.00	217.30	22.41	21.13	21.94	21.13
15	Malabar	21.27	20.22	22.75	20.99	21.94	20.18	181.09	131.39	22.35	20.47	21.34	20.47
16	Nellore	20.07	20.20	19.67	19.03	22.44	21.12	214.23	333.33	22.15	21.37	21.77	21.37
17	Nalgur, The	19.02	19.58	22.25	33.76	18.31	19.23	20.42	340.50	19.53	21.34	20.35	21.34
18	North Arcot	15.46	17.81	19.17	18.55	22.73	21.80	55.92	50.95	22.53	21.65	22.09	21.65
19	Ramanad	14.15	13.75	19.22	15.64	20.49	18.60	260.87	1.1.82	20.10	18.13	19.05	18.13
20	Salem	21.63	21.58	14.24	17.62	20.21	19.48	137.93	109.00	20.06	19.45	19.77	19.45
21	South Arcot	16.33	15.16	17.12	17.30	22.10	21.44	157.81	157.29	22.32	21.40	21.86	21.40
22	South Kanara	16.57	18.14	17.04	16.28	21.64	21.84	21.95	28.90	20.58	19.47	20.01	19.47
23	Tanjore	13.35	11.06	17.99	15.67	23.12	21.91	254.60	28.59	22.51	21.20	21.83	21.20
24	Tinnevely	20.42	17.13	24.14	19.99	24.05	22.24	133.33	333.33	23.66	21.52	22.54	21.52
25	Trichinopoly	15.99	16.73	19.49	1.36	22.6	20.98	184.77	745.44	21.89	20.68	21.18	20.68
26	Vizagapatnam	6.96	8.48	17.79	17.37	23.58	21.44	5.74	10.25	23.37	21.29	22.32	21.29
	Total, Madras Presidency	17.63	17.05	21.21	20.08	22.91	21.54	45.13	48.88	22.01	21.31	21.96	21.31

No. VI.—BIRTHS AND DEATHS REGISTERED FROM DIFFERENT CAUSES IN THE DISTRICTS AND TOWNS OF THE MADRAS PRESIDENCY DURING THE YEAR 1932.

Number.	Districts and towns.	Popula- tion for which returns were received.	Births.				Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.
			Males.	Females.	Total.	Birth-rate per million popu- lation.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A.—RURAL DISTRICTS.												
1	Anantapur	941,432	18,154	17,642	35,796	38.02	25	13	...	6,315	1,241	2,497
2	Bellary	862,325	17,291	16,773	34,064	32.46	...	17	160	4,389	1,236	1,921
3	Chingleput	1,383,780	24,143	23,346	46,489	33.47	11	85	...	4,462	2,498	2,178
4	Chittoor	1,369,384	23,698	22,679	46,345	33.86	45	36	...	8,092	2,881	3,351
5	Coimbatore	2,166,036	40,591	38,362	78,953	36.45	969	52	78	9,456	3,171	5,784
6	Cuddapah	866,341	16,186	15,421	31,607	38.48	...	2	...	7,987	625	1,723
7	Ganjam	1,930,297	40,319	38,468	78,887	40.67	112	153	...	26,895	3,279	3,219
8	Godavari, East	1,677,499	23,331	26,989	55,320	33.18	6	6	...	17,132	1,808	4,118
9	Godavari, West	1,061,133	21,400	20,282	41,681	39.28	4	8	...	8,291	1,563	2,737
10	Guntur	1,757,167	33,587	31,917	65,504	37.28	...	...	...	15,535	2,452	4,227
11	Kistna	1,080,179	21,760	20,543	42,303	39.07	...	21	...	8,121	1,757	3,692
12	Kurnool	968,963	21,487	20,637	42,124	43.56	...	13	...	9,600	1,380	2,504
13	Madura	1,731,327	29,159	27,168	56,328	32.11	852	316	177	4,935	3,738	4,014
14	Malabar	8,353,377	63,399	69,434	123,830	37.99	201	180	13	20,694	6,654	6,340
15	Nellore	1,562,556	25,391	23,699	49,091	36.01	4	84	...	9,521	2,083	2,501
16	Nilgiris, The	111,521	1,709	1,672	3,381	26.42	1	5	3	1,080	302	351
17	North Arcot	1,028,826	35,827	37,273	73,102	39.46	39	160	12	11,129	4,065	3,122
18	Raman	1,452,438	20,273	19,307	39,580	27.25	954	353	...	9,810	2,688	2,366
19	Salem	2,237,993	44,405	39,696	84,101	36.24	195	135	193	15,775	2,982	1,724
20	South Arcot	2,214,589	39,687	36,722	76,409	34.23	408	1,266	...	10,627	4,100	3,998
21	South Kanara	1,251,743	24,912	23,598	48,510	38.32	24	52	8	5,751	1,978	1,754
22	Tanjore	1,993,284	31,311	29,723	61,033	30.88	546	593	...	3,824	1,081	1,009
23	Tinnevely	1,521,657	25,522	24,674	50,196	33.58	8	130	...	5,761	3,293	2,182
24	Trichinopoly	1,640,987	29,178	28,222	57,400	34.98	420	110	...	6,863	2,671	1,593
25	Vizagapatam	2,175,639	41,826	40,199	82,025	37.70	5	48	...	31,216	1,617	2,342
Total, rural districts ...		38,607,511	719,318	684,037	1,403,355	36.07	4,621	3,761	331	268,314	64,469	70,791

Injuries.										Ratio of deaths per 1,000 of population.													
Suicides.		Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.	Deaths from child births.	All other causes.	Total deaths from all causes.	Cholera.	Smallpox.	Plague.	Typhus.	Typhoid and dysentery.	Respiratory diseases.	Injuries.	Deaths from child births.	All other causes.	From all causes.					
Males.	Females.																	For the year.	Mean for the previous 5 years.				
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)				
27	63	115	185	12	562	463	12,315	23,259	002	01	...	0003	1317	265	0033	050	1319	2469	2905				
23	32	73	47	11	186	225	12,033	20,107	...	021	12	0049	155	240	0029	025	1504	2554	2960				
30	24	106	93	10	263	305	20,267	20,504	004	016	...	0021	165	156	0018	027	1463	2152	2493				
51	85	159	129	15	430	569	11,577	18,674	001	021	...	0035	216	266	0032	026	918	2063	2517				
75	94	350	249	21	769	824	10,647	13,453	000	024	14	0035	284	275	0035	015	904	1919	1776				
21	53	113	56	9	251	310	5,701	16,805	...	002	...	0052	75	267	0030	042	671	1981	2670				
19	23	158	100	12	391	597	11,139	14,804	005	008	...	0046	164	111	0015	020	572	2240	2479				
60	53	131	91	14	324	521	12,032	36,717	003	003	...	0028	108	247	0019	023	746	2203	2476				
32	31	94	109	26	233	355	12,547	26,265	003	003	...	0080	178	261	0027	033	1209	2439	2865				
57	76	137	91	38	401	417	16,936	27,016	...	...	...	0083	139	239	0023	021	961	2260	2688				
33	43	103	67	11	201	315	10,983	25,119	...	002	...	0043	169	339	0024	039	1012	2613	2593				
24	46	87	143	13	313	351	8,635	23,069	001	004	...	0093	143	259	0032	030	924	2388	3323				
64	77	233	151	13	519	567	21,197	36,345	001	018	27	282	213	229	0031	017	1208	2073	2228				
90	63	426	230	21	844	710	32,188	67,926	006	005	0005	0033	203	197	0026	022	981	2675	2214				
79	109	235	95	33	551	522	14,464	20,430	000	006	...	0095	152	175	0040	023	1066	2149	2420				
...	1	6	3	...	13	20	605	2,276	0008	004	002	0069	27	315	0008	016	453	2041	3565				
85	90	260	148	27	626	491	23,554	42,495	002	001	00006	0068	207	169	0032	023	1167	2167	2302				
19	23	113	56	7	210	227	10,414	26,522	008	017	...	0075	144	63	0016	016	730	1830	2094				
77	101	380	224	22	764	651	21,809	44,149	008	006	001	0044	133	077	0036	020	977	1969	2116				
87	48	181	104	25	567	537	27,755	48,113	018	009	...	0053	185	167	0023	030	1253	2187	2403				
26	36	261	74	14	405	330	11,974	25,279	002	004	...	0098	163	143	0032	027	956	2017	2423				
61	50	188	149	23	492	572	32,660	48,363	015	006	0004	0034	202	059	0020	059	1648	2119	2513				
29	34	211	117	11	402	322	21,404	33,497	004	009	...	0076	216	139	0023	021	1419	2200	2581				
55	54	217	166	22	414	451	21,631	34,945	025	007	...	0016	163	109	0031	033	1278	2061	2395				
35	66	265	129	15	409	326	12,375	48,428	002	002	...	0023	074	107	0023	015	568	2223	2711				
1,164	1,371	4,634	2,932	123	19,534	9,876	407,948	839,295	12	16	0002	485	183	183	0027	025	1049	2167	2465				

Number.	Districts and towns.	Popula- tion for which returns were received.	Births.				Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Males.	
			Males.	Females.	Total.	Birthrate per thousand of popula- tion.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
B.—Towns.														
Anantapur.														
1	M.T.C. Anantapur ...	15,099	284	261	545	36.69	...	...	...	29	31	92	...	
2	M.T.C. Hindupur ...	14,211	269	263	532	36.80	...	...	...	33	19	65	...	
3	M.T.C. Tadipatri ...	12,621	212	191	403	31.93	...	...	...	75	12	9	...	
4	T.C. Guntakal ...	15,620	307	275	582	37.26	...	...	...	74	13	7	...	
5	T.C. Urvakonda ...	12,079	227	260	487	36.35	...	...	...	83	25	27	...	
6	T.C. Gooty ...	9,712	202	173	375	38.61	...	...	...	20	10	25	...	
7	T.C. Kadiri ...	9,352	396	239	515	58.27	...	...	...	123	26	20	...	
8	T.C. Dharanavaram ...	9,346	17	179	255	27.98	...	...	...	22	7	2	...	
9	T.C. Penakonda ...	5,262	147	170	317	60.24	...	...	...	51	25	37	...	
10	T.C. Pamidi ...	5,147	109	122	228	44.39	...	...	1	8	...	...	...	
Bellary.														
11	M.T.C. Bellary ...	47,573	994	891	1,875	39.41	...	2	...	112	171	387	...	
12	M.T.C. Adoni ...	35,35	770	732	1,502	42.14	...	...	1	10	151	255	...	
13	M.T.C. Hospet ...	21,673	417	403	820	37.83	...	...	...	92	58	94	...	
14	T.C. Rayachoti ...	12,077	265	266	531	44.22	...	2	...	139	7	20	...	
15	T.C. Yemmiganur ...	10,911	290	264	550	51.32	...	...	...	94	23	22	...	
16	T.C. Kosi ...	10,271	239	223	462	44.88	...	...	...	54	23	24	...	
17	T.C. Harpanahalli ...	8,773	213	221	434	49.47	...	...	74	34	14	11	...	
18	T.C. Kampli ...	7,251	190	168	318	47.80	...	...	...	39	27	31	...	
19	T.C. Kotturu ...	6,943	131	114	245	35.19	...	...	...	48	28	1	...	
20	T.C. Siruguppa ...	5,892	118	104	222	37.68	...	1	...	76	...	1	...	
Chingleput.														
21	M.T.C. Conjeevaram ...	65,253	1,098	1,091	2,179	33.39	...	2	...	71	250	377	3	
22	M.T.C. Saidapet ...	34,437	563	507	1,130	34.30	...	5	...	66	121	170	...	
23	M.T.C. Chingleput ...	14,358	370	360	720	50.15	...	3	...	32	49	68	...	
24	T.C. Seimbom ...	34,127	516	459	975	29.49	...	...	...	252	108	2	...	
25	T.C. Poonamallee ...	29,349	371	365	736	29.78	...	6	...	119	67	84	...	
26	T.C. Uthiramerar ...	11,711	226	213	439	37.49	...	2	...	51	50	26	...	
27	T.C. Pallavaram ...	10,769	119	134	253	23.49	...	...	...	62	10	21	...	
28	T.C. Tiruvottiyur ...	10,732	113	100	213	19.85	...	...	...	68	22	5	...	
29	T.C. Tiruvallur ...	10,656	151	159	391	24.25	...	...	...	43	25	6	...	
30	T.C. Alandur ...	9,985	83	176	189	18.93	...	1	...	44	6	6	...	
31	T.C. Tirukkalkikunram ...	8,623	195	170	365	42.33	...	...	...	52	24	17	...	
32	T.C. St. Thomas' Mount ...	7,934	101	77	178	22.39	...	...	...	69	7	13	...	
33	T.C. Madurantakam ...	7,952	187	140	327	41.12	...	...	...	38	...	2	...	
34	T.C. Sripurambudur ...	6,478	111	126	237	36.69	...	...	...	36	...	...	...	
35	T.C. Cheyur ...	6,373	126	94	220	34.52	...	...	...	28	6	10	...	
36	T.C. Arani ...	5,298	120	91	211	39.83	...	...	...	20	16	19	...	
Chittoor.														
37	M.T.C. Chittoor ...	22,018	377	318	715	32.47	...	1	...	13	15	47	1	
38	M.T.C. Tirupati ...	19,138	286	278	564	29.47	...	10	...	107	50	74	...	
39	T.C. Kalabasti ...	13,152	206	177	383	29.12	...	...	...	125	24	50	...	
40	T.C. Madanapalle ...	9,459	215	190	405	42.82	...	...	...	66	9	40	...	
41	T.C. Punganur ...	8,334	182	147	329	39.48	...	...	...	94	46	45	...	
42	T.C. Tiruttani ...	6,405	103	106	209	32.63	...	...	...	11	9	5	...	
Coimbatore.														
43	M.T.C. Coimbatore ...	95,198	1,758	1,646	3,404	35.76	...	51	1	...	241	323	583	5
44	M.T.C. Erode ...	33,672	624	471	995	29.54	...	...	...	69	42	65	2	
45	M.T.C. Pollachi ...	22,112	880	391	777	35.14	...	4	...	73	76	67	1	
46	M.T.C. Dharapuram ...	18,218	554	344	698	38.31	...	7	...	17	51	71	...	
47	M.T.C. Tiruppur ...	18,059	262	228	440	27.13	...	4	13	...	52	27	40	...
48	M.T.C. Udumalpet ...	12,184	191	169	360	29.55	...	8	...	32	44	31	1	
49	T.C. Gobichettipalayam ...	18,304	343	325	667	40.91	...	1	...	97	39	43	1	
50	T.C. Kollegal ...	13,840	236	214	450	32.49	...	2	42	...	41	19	72	...
51	T.C. Karachi ...	12,825	131	152	263	20.51	...	11	...	...	19	9	13	...
52	T.C. Meitpalaiyam ...	11,473	295	265	560	48.80	...	...	1	...	77	40	56	1
53	T.C. Kottur ...	8,555	187	183	370	39.87	...	...	...	32	30	38	...	
54	T.C. Palladam ...	6,937	122	126	248	35.49	...	...	...	38	26	6	...	
55	T.C. Bhavani ...	6,896	139	139	278	40.31	...	1	...	23	10	45	...	

[illegible]

Districts and Towns of the Madras Presidency during the year 1932—cont.

Injuries.					Deaths from child births.	All other causes.	Total deaths from all causes.	Ratio of deaths per 1,000 of population.											From all causes.	
Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	Total.				Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory cases.	Injuries.	Deaths from child births.	All other causes.	For the year.	Mean for the prev. five years.		
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)		
...	13	1	1	15	35	257	337	...	...	...	...	...	...	...	...	1270	2576	2599		
...	7	1	2	8	18	195	412	...	...	...	...	...	...	...	...	904	2247	2445		
...	...	...	...	3	3	102	269	...	...	...	...	...	...	...	...	610	1875	5513		
...	1	3	4	4	3	92	128	...	...	...	...	...	...	...	...	1310	1865	1735		
...	...	...	...	1	1	32	100	...	...	...	...	...	...	...	...	409	1591	2215		
...	2	1	...	4	2	46	141	...	...	...	...	...	...	...	...	702	2427	1674		
...	...	...	...	...	2	48	100	...	...	...	...	...	...	...	...	944	1909	2648		
...	12	...	3	16	46	300	753	0.35	...	...	...	...	...	...	...	774	1906	1877		
...	...	1	...	7	...	189	446	...	...	...	...	...	...	...	...	642	2022	2185		
...	6	...	1	7	...	78	238	0.06	...	...	...	...	...	...	...	445	1452	2462		
...	1	...	...	1	...	33	172	...	0.39	...	...	...	...	...	...	375	1668	1697		
...	...	...	...	1	...	47	157	...	...	...	...	...	...	...	...	566	1674	1806		
...	1	...	1	2	3	61	184	...	...	...	...	...	...	...	...	792	2121	2051		
...	...	...	...	...	...	67	167	...	...	...	...	...	...	...	...	820	2063	2181		
...	1	...	...	1	...	57	118	...	...	...	...	...	...	...	...	845	1746	1828		
...	1	...	...	1	1	20	94	...	...	...	...	...	...	...	...	578	1874	...		
...	12	1	...	18	32	758	1,539	...	0.01	...	...	...	...	...	...	1240	2432	2698		
...	21	1	2	29	38	833	1,731	...	...	...	...	...	...	...	...	1308	2725	2921		
...	2	...	...	4	5	136	232	...	...	...	...	...	...	...	...	794	1520	1978		
...	...	...	...	3	6	55	213	...	...	...	...	...	...	...	...	306	1517	1538		
...	8	...	...	9	4	406	344	...	...	...	...	...	...	...	...	658	2139	2350		
...	5	...	...	7	3	120	330	...	...	...	...	...	...	...	...	739	1972	2192		
...	1	...	...	4	3	50	217	...	...	...	...	...	...	...	...	432	2155	1645		
...	...	...	...	1	6	113	312	...	...	...	...	...	...	...	...	450	2705	2854		
...	1	...	...	2	1	102	168	...	...	...	...	...	...	...	...	1048	1726	1437		
...	4	...	...	4	4	23	183	0.18	...	...	...	...	...	...	...	236	2370	2376		
...	...	...	...	1	...	45	115	...	...	...	...	...	...	...	...	802	2052	1712		
...	9	6	...	19	20	599	1,039	...	...	...	...	...	...	...	...	1641	1659	1844		
...	2	...	...	8	8	154	285	...	...	...	...	...	...	...	...	911	1632	1946		
...	3	2	...	12	12	250	436	...	...	...	...	...	...	...	...	1658	2782	3344		
...	...	...	...	...	8	293	580	...	...	...	...	...	...	...	...	1905	2788	2892		
...	...	...	...	1	2	204	284	...	...	...	...	...	...	...	...	1578	2196	3173		
...	2	1	...	6	3	174	289	...	...	...	...	...	...	...	...	1589	2573	3177		
...	...	...	...	...	9	101	177	...	...	...	...	...	...	...	...	1014	1771	2585		
...	3	...	...	3	9	125	194	...	...	...	...	...	...	...	...	1370	1972	...		
...	1	...	...	1	2	87	125	...	...	...	...	...	...	...	...	722	1611	2485		
...	5	...	...	4	6	83	122	...	...	...	...	...	...	...	...	1256	1843	...		
...	13	19	...	40	81	1,071	1,829	...	...	...	...	...	...	...	...	1643	3802	3786		
...	1	6	1	3	12	320	622	...	...	...	...	...	...	...	...	444	1570	1848		
...	...	...	...	7	7	195	339	...	...	...	...	...	...	...	...	1059	1756	2017		
...	12	...	...	12	24	261	468	...	...	...	...	...	...	...	...	1566	2597	3043		
...	11	...	...	11	6	99	375	...	...	...	...	...	...	...	...	2432	2322	...		
...	...	1	...	1	2	108	258	...	...	...	...	...	...	...	...	898	1933	2356		
...	...	...	1	2	8	107	368	...	...	...	...	...	...	...	...	964	3315	2576		
...	...	2	...	2	2	32	182	...	...	...	...	...	...	...	...	2888	1629	1828		
...	...	...	1	5	1	129	225	...	...	...	...	...	...	...	...	1170	2056	2544		
...	...	1	...	4	4	46	240	...	...	...	...	...	...	...	...	435	2969	2511		
...	...	1	...	1	1	61	182	...	...	...	...	...	...	...	...	607	1770	2060		
...	3	...	...	5	3	87	228	...	...	...	...	...	...	...	...	1128	2947	3000		
...	...	...	...	...	6	97	221	...	...	...	...	...	...	...	...	1216	2053	2843		
...	...	...	...	...	1	25	114	...	...	...	...	...	...	...	...	336	1531	1544		
...	1	4	...	6	...	73	159	...	...	...	...	...	...	...	...	371	2131	2522		
...	...	...	...	...	1	51	141	...	...	...	...	...	...	...	...	690	1947	1711		
...	...	1	...	1	5	129	205	...	...	...	...	...	...	...	...	1368	2574	3173		
...	...	...	...	...	4	119	162	...	...	...	...	...	...	...	...	2029	2763	3200		
...	1	...	...	2	1	102	169	...	...	...	...	...	...	...	...	1827	3332	3411		
...	...	...	...	...	1	3	159	...	...	...	...	...	...	...	...	055	2572	...		
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...	...																			

and Towns of the Madras Presidency during the year 1932.—cont.

[illegible]

the Districts and Towns of the Madras Presidency during the year 1932—cont.

Injuries.					Ratio of deaths per 1,000 of population.																
Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	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 preceding 5 years.			
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)			
7	34	1	2	43	39	1,019	1,704	0.02	0.03	0.02	2.15	3.61	4.66	0.79	0.58	17.79	29.76	24.09			
...	7	1	...	9	13	344	729	...	0.36	0.07	2.60	6.03	8.72	0.53	0.47	12.42	26.00	30.14			
...	5	...	2	7	18	250	477	...	...	1.13	2.79	4.23	6.28	...	0.73	10.32	19.32	23.21			
...	...	...	...	...	15	239	436	...	0.04	2.83	1.43	2.62	6.41	...	0.65	10.42	19.61	19.42			
1	6	...	...	8	19	245	350	...	...	0.11	3.41	1.23	1.69	0.41	1.04	13.59	21.31	22.28			
3	3	...	...	5	5	128	238	...	...	...	1.44	4.41	3.33	0.27	0.45	11.58	21.54	28.96			
1	2	...	...	7	12	324	492	...	...	...	3.80	2.45	0.62	0.29	0.37	13.79	29.32	27.78			
...	7	...	...	8	9	225	475	...	0.34	...	6.99	2.75	3.10	0.46	0.69	12.99	27.22	29.95			
...	...	...	...	1	4	86	267	...	...	...	5.19	4.69	2.22	0.07	0.28	5.80	17.80	21.64			
...	...	...	...	...	5	114	182	...	0.16	...	3.70	0.82	4.39	...	0.41	8.38	14.67	23.66			
3	1	...	...	4	11	183	255	...	...	...	3.15	1.66	0.66	0.33	0.17	15.18	21.16	23.83			
2	...	...	...	...	...	191	265	...	0.60	...	3.53	0.84	0.77	0.17	0.95	16.43	22.79	24.75			
...	3	...	...	...	7	82	189	...	0.39	...	4.58	2.23	1.21	0.43	0.69	7.08	16.32	31.19			
...	...	...	...	...	4	100	208	...	...	...	6.95	1.67	1.78	0.10	0.41	10.37	21.27	26.14			
...	...	...	...	...	2	67	93	...	...	...	0.63	1.36	0.63	...	0.23	7.58	10.53	17.17			
1	2	...	...	5	2	118	222	...	...	...	4.37	3.34	3.34	0.58	0.35	13.68	26.64	23.14			
...	...	...	...	10	4	117	212	...	0.24	...	8.20	3.86	1.03	1.21	0.48	14.11	29.11	27.69			
...	...	...	...	4	4	72	126	...	0.12	...	3.23	2.40	0.25	0.12	0.39	8.96	15.69	20.30			
1	1	...	...	3	1	136	194	...	...	...	3.26	2.64	0.88	0.38	0.13	17.08	24.36	...			
...	2	...	...	2	5	49	144	...	...	...	6.28	1.15	1.41	0.27	0.61	7.53	17.16	19.06			
...	...	...	...	...	5	95	162	...	...	...	1.20	4.36	2.26	...	0.75	14.28	22.55	20.91			
2	3	...	...	6	3	56	112	...	...	...	4.03	2.29	1.23	0.88	0.53	9.89	15.71	...			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
1	14	1	1	18	16	434	872	0.18	0.94	...	1.24	4.56	5.59	0.54	0.49	13.12	26.39	26.55			
...	18	...	...	21	10	492	850	...	0.03	...	0.86	2.84	6.05	0.62	0.93	15.19	26.22	26.37			
...	0	...	...	9	13	164	503	0.05	3.46	...	3.14	4.34	3.60	0.42	0.69	7.67	23.31	20.16			
...	11	...	...	12	6	141	290	...	0.13	...	3.51	2.65	5.27	0.78	0.39	9.27	13.66	18.94			
1	1	...	...	2	1	973	917	...	...	11.00	2.25	3.62	0.02	...	0.65	0.69	23.70	21.51			
...	...	...	...	...	7	274	713	...	1.41	...	7.08	2.42	1.36	0.93	0.21	8.10	21.21	19.87			
...	...	...	...	...	...	7	79	...	0.50	...	2.11	0.54	0.49	...	0.24	0.54	3.27	13.15			
...	3	...	...	4	11	189	332	0.48	0.65	...	2.03	2.50	0.71	0.24	0.65	11.24	19.15	22.62			
...	...	...	...	...	5	186	336	4.84	0.25	...	4.05	2.39	0.62	0.60	0.31	11.51	24.28	15.36			
...	1	...	...	2	3	93	225	5.13	0.58	...	2.18	1.19	0.33	0.17	0.25	7.69	18.61	30.35			
...	9	...	...	...	...	37	241	0.18	0.35	...	4.94	2.29	9.45	0.73	...	3.27	31.25	24.02			
...	...	...	...	1	...	35	122	0.28	1.03	...	2.91	2.97	2.44	0.25	0.69	2.50	11.46	18.26			
...	2	...	...	2	...	72	210	0.20	6.15	...	4.79	1.15	1.58	0.20	...	7.56	21.68	19.57			
...	1	...	...	2	...	51	147	1.73	0.54	...	5.29	1.19	1.19	0.22	...	6.85	15.65	29.62			
1	3	...	...	5	195	...	...	...	0.32	0.33	8.55	3.08	2.71	0.46	0.22	10.94	26.62	23.75			
...	...	...	...	...	12	143	318	0.24	...	...	8.31	5.70	4.57	0.21	1.42	16.98	37.75	34.95			
...	3	...	...	2	...	58	187	...	...	...	14.25	1.05	1.49	0.19	...	4.63	22.81	...			
...	...	...	...	...	...	80	144	2.79	0.13	...	3.47	0.13	1.07	0.13	...	10.27	18.49	19.06			
1	...	...	...	1	...	59	125	2.39	0.14	...	4.87	0.15	0.41	0.14	0.14	7.09	14.82	22.55			
...	...	...	...	...	1	55	114	...	...	...	3.89	1.76	1.76	...	...	9.21	10.67	14.43			
...	...	...	...	...	1	76	181	...	1.19	...	5.36	3.86	6.09	0.45	0.13	11.29	28.37	20.14			
...	...	...	...	...	...	50	84	...	0.15	...	1.50	0.59	0.75	...	...	7.50	10.19	...			
...	...	...	...	...	4	76	355	0.61	0.34	...	20.68	7.76	5.52	0.61	0.61	11.56	63.99	25.23			
...	...	...	...	...	...	70	123	...	...	...	6.88	1.00	0.80	...	...	11.90	20.43	15.24			
...	...	...	...	...	...	28	110	0.61	...	...	6.00	2.06	0.52	...	0.51	4.81	10.41	...			
...	...	...	...	...	...	33	61	...	...	...	4.41	0.36	0.36	...	...	5.82	10.94	...			
1	...	...	...	1	...	55	159	...	...	...	11.88	3.24	2.84	0.18	1.08	9.10	28.42	28.41			
...	...	...	...	...	...	35	45	...	1.13	...	0.19	0.27	...	...	...	6.61	8.50	17.57			
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4	35	...	...	53	41	1,233	2,385	0.05	0.34	...	3.62	2.60	3.11	0.52	0.40	13.65	23.34	42.22			
3	...	...	...	3	3	60	231	...	0.20	...	5.33	3.94	1.38	0.29	0.29	4.66	12.50	16.14			
...	2	...	...	2	4	104	221	...	...	...	4.71	0.90	2.08	0.14	0.29	7.26	16.31	21.14			
...	1	...	...	1	3	64	144	...	...	0.08	3.11	1.87	0.59	0.39	0.23	4.08	11.30	25.30			
...	...	...	...	5	1	130	246	...	...	...	5.11	2.27	1.54	0.71	0.05	10.16	19.66	21.26			
1	5	...	...	2	5	96	213	...	...	...	5.73	2.33	1.20	0.17	0.43	8.21	15.21	20.77			
1	3	...	...	4	3	102	183	...	0.27	...	4.27	0.69	1.24	0.30	0.27	9.06	16.26	17.41			
2	1	...	...	3	5	76	167	0.32	0.11	...	6.55	1.18	0.75	0.32	0.54	8.17	17.55	30.91			
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No. VI.—Births and Deaths registered from Different Causes in the

Number.	Districts and towns.	Population for which returns were received.	Births.			Birth-rate per 1,000 of population.	Cholera.	Smallpox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Sub.
			Males.	Females.	Total.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
A B.—Towns—cont.													
<i>South Arcot.</i>													
224	M.T.C. Ondallore	59,057	1,107	995	2,102	35.59	8	24	...	99	124	152	3
225	M.T.C. Chidambaram	25,084	378	388	766	30.53	7	12	...	44	57	27	1
226	M.T.C. Villupuram	20,127	272	290	562	27.73	...	111	...	45	39	27	1
227	T.C. Tindivanam	18,856	217	220	437	23.18	1	13	...	135	50	13	...
228	T.C. Panruti	13,952	169	181	350	25.09	...	38	...	38	15	10	1
229	T.C. Porto Novo	13,762	201	187	388	28.10	5	...	...	105	15	24	...
230	T.C. Nellikuppam	13,695	234	232	466	33.00	...	...	...	153	26	32	...
231	T.C. Tirukkoyilur	13,436	221	208	429	31.93	...	...	...	44	8	3	...
232	T.O. Mannaruzdi	9,109	120	90	210	23.05	...	...	...	32	11	3	...
233	T.O. Viddhalahalam	9,016	79	75	154	17.08	...	...	...	34	8	5	...
234	T.C. Bhuvanagiri	8,846	105	86	191	20.91	3	33	...	51	19	20	...
235	T.C. Kallakurichi	7,522	150	131	281	37.36	...	...	...	68	1	2	...
236	T.C. Chinnasalem	7,130	152	156	308	43.20	...	...	...	29	16	3	...
237	T.C. Valavanur	7,051	149	137	286	40.56	...	...	...	47	38	18	...
238	T.C. Srimangalam	6,213	94	109	203	32.67	14	3	...	15	5	...	...
239	T.C. Ulundurpet	6,166	112	83	195	31.62	...	3	...	22	28	4	1
<i>South Kanara.</i>													
240	M.T.C. Mangalore	66,756	1,096	965	2,061	30.87	...	2	...	54	120	248	2
241	T.C. Udipi	14,833	300	312	612	41.26	...	...	...	111	23	23	...
242	T.C. Kasargod	9,169	224	214	438	47.77	...	...	...	61	7	11	...
243	T.C. Coondapoor	8,923	177	177	354	39.67	...	...	...	50	6	36	...
244	T.C. Pattur	7,822	150	119	269	34.39	...	...	...	42	13	15	...
245	T.C. Karkal	7,204	212	191	403	55.04	...	...	...	48	8	17	...
246	T.C. Mulki	5,504	110	101	211	38.33	...	...	...	20	2	5	...
<i>Tanjore.</i>													
247	M.T.C. Tanjore	66,880	1,304	1,261	2,565	38.35	3	44	...	220	154	185	...
248	M.T.C. Kumbakonam	62,317	1,104	1,088	2,192	35.17	...	1	...	185	122	152	1
249	M.T.C. Negapatam	48,527	816	775	1,591	32.79	...	3	...	94	185	238	...
250	M.T.C. Mayavaram	31,887	538	510	1,048	32.87	1	4	...	36	17	130	2
251	M.T.C. Mannargudi	22,764	439	413	852	37.43	1	1	...	...	68	75	...
252	M.T.C. Tiruvarur	20,371	316	290	606	29.74	...	...	...	51	73	13	...
253	T.C. Vedaranniyam	15,038	257	254	511	33.90	...	6	...	24	15	11	...
254	T.C. Shivali	12,814	207	188	395	30.83	...	...	...	33	9	8	...
255	T.C. Tranquebar	12,796	182	177	359	28.06	...	...	...	57	22	23	...
256	T.C. Tiruvadamardur	12,759	168	151	319	25.00	7	...	...	81	16	19	...
257	T.C. Pattukkottai	10,981	156	156	312	28.59	...	...	...	60	14	8	...
258	T.C. Adirampattam	10,893	210	195	405	37.13	...	...	...	18	4	...	...
259	T.C. Aycampettai	10,163	160	95	254	20.07	3	2	...	37	11	19	1
260	T.C. Vallam	8,534	145	140	285	33.40	1	1	...	23	17	2	...
261	T.C. Tiruvadi	7,741	112	96	208	26.87	...	...	...	13	...	...	...
262	T.C. Tiratturappundi	7,351	145	101	246	33.46	...	...	...	33	10	11	...
263	T.C. Muttupet	6,990	98	85	183	26.22	...	4	...	36	34	6	...
264	T.C. Tirukkattappalli	6,498	124	112	236	36.24	4	7	...	18	4	1	...
265	T.C. Kuttalam	6,367	78	71	149	23.40	...	1	...	16	7	2	...
266	T.C. Vaidiswaran Kovil	5,372	75	92	167	31.09	...	...	...	27	10	3	...
267	T.C. Valangimam	5,227	66	63	129	24.68	...	4	...	15	7	2	...
<i>Tinnevely.</i>													
268	M.T.C. Tuticorin	60,395	1,008	876	1,884	31.25	...	67	...	267	192	198	...
269	M.T.C. Tinnevely	57,078	980	923	1,903	33.43	...	7	...	56	167	306	1
270	M.T.C. Palamcottah	51,990	987	914	1,901	36.56	...	18	...	8	124	248	...
271	T.C. Tenkasi	27,338	520	504	1,024	37.46	...	6	...	93	15	45	1
272	T.C. Kodaikanallur	23,819	595	538	1,133	48.11	...	...	...	161	63	29	...
273	T.C. Poliyangudi	21,173	399	395	794	37.50	...	1	...	174	75	21	...
274	T.C. Viravanallur	17,622	314	332	646	36.52	...	2	...	56	42	5	...
275	T.C. Kallidankurichi	17,074	295	263	558	32.79	...	1	...	86	40	13	...
276	T.C. Surandai	15,728	236	244	480	30.52	...	...	...	75	32	12	...
277	T.C. Ambasamudram	15,602	254	233	487	31.20	...	4	...	71	32	6	...
278	T.C. Tiruchendur	15,323	142	143	285	18.59	...	...	...	49	10	17	...
279	T.C. Sankarankoyil	14,823	256	250	506	33.16	...	...	...	91	78	23	...
280	T.C. Sivagiri	12,746	289	236	525	41.19	...	...	...	91	65	7	...
281	T.C. Udangudi	12,397	163	180	343	27.67	...	...	...	50	13	8	...

Districts and Towns of the Madras Presidency during the year 1932—cont.

Injuries.					Ratio of deaths per 1,000 of population.												From all causes.	
Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Rabies.	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 years.
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
1	20	5	3	32	33	923	1,461	0.15	0.41	...	1.68	2.10	2.57	0.54	0.64	15.63	23.72	27.74
1	16	1	1	20	14	416	682	0.23	0.48	...	1.75	2.27	3.47	0.28	0.83	17.73	27.19	28.58
...	1	...	...	1	2	198	454	...	5.51	...	2.24	1.04	1.81	1.60	0.70	9.84	22.66	26.08
...	...	...	...	...	3	136	333	0.05	0.69	...	7.16	1.59	0.69	0.16	0.11	7.21	17.66	21.66
...	...	...	...	...	3	183	261	...	0.14	...	2.51	1.29	1.56	0.07	0.21	13.12	18.71	19.31
...	...	...	...	...	3	145	325	0.36	1.82	...	7.63	1.24	1.74	0.07	0.22	10.54	23.22	23.32
...	...	...	...	...	3	127	339	...	2.77	...	9.83	1.90	2.34	6.15	0.66	9.27	26.94	27.83
...	...	...	...	...	4	168	231	...	...	...	3.27	0.60	0.60	0.67	0.15	12.50	17.19	19.37
...	...	...	...	...	4	84	139	...	0.55	...	3.51	1.21	0.33	...	0.44	9.22	15.25	...
...	...	...	...	...	4	63	114	...	0.11	...	3.77	0.89	0.55	0.11	0.22	6.99	12.64	56.16
...	...	...	...	...	5	67	200	0.34	3.73	...	5.77	2.15	2.24	0.57	0.23	7.37	22.61	20.93
...	...	...	...	...	3	96	170	...	...	...	9.04	0.13	0.23	...	0.46	5.47	12.90	22.71
...	...	...	...	...	...	39	92	...	0.14	...	4.07	2.24	0.42	0.56	...	6.03	24.54	19.78
...	...	...	...	...	6	83	173	...	0.13	...	0.67	5.39	2.55	...	0.84	14.21	22.35	...
...	...	...	...	...	4	92	142	2.25	0.48	...	2.41	0.80	...	1.95	0.64	14.21	22.35	...
...	...	...	...	...	3	59	122	...	0.41	...	3.57	4.54	0.65	0.49	0.49	9.57	19.79	...
South Arcot.																		
2	10	...	3	18	24	616	582	...	0.03	...	0.81	1.80	3.71	0.27	0.36	9.23	16.21	20.85
1	4	...	...	5	5	165	332	...	...	...	7.48	1.55	1.55	0.34	0.34	11.12	22.38	23.78
...	2	...	...	...	...	113	191	...	...	...	5.66	0.76	1.20	0.41	...	12.87	20.83	37.61
...	1	...	...	...	...	50	141	...	...	...	5.60	0.67	3.33	0.22	...	6.23	16.13	30.77
...	7	...	...	...	...	95	169	...	...	...	5.57	1.68	1.92	0.26	0.26	12.15	21.81	...
...	...	...	...	...	...	81	165	...	...	...	6.80	1.11	3.36	0.97	0.42	11.21	24.99	13.34
...	...	...	...	...	...	61	91	...	...	...	3.63	0.36	0.91	0.55	...	11.09	16.53	18.77
South Kanara.																		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...																		

Districts and Towns of the Madras Presidency during the year 1932—cont.

[illegible]

No. VII.—Deaths registered from Cholera in the Districts of Madras I residency during each month of the year 1932.

Number	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which cholera were reported.	Number in each district.	Number from which cholera were reported.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	12	1	856	10	25	...	...	...	...	...	...
2	Bellary	12	...	918	...	...	...	...	...	...	...	...
3	Chingleput	10	...	2,155	...	...	...	...	...	...	...	...
4	Chittoor	12	2	2,261	4	...	9	...	...	...	...	...
5	Coimbatore	16	2	1,416	20	533	44	63	117	110	49	...
6	Cuddapah	11	4	1,847	245	...	190	...	...	...	...	...
7	Ganjam	14	...	4,054	40	...	3	4	6	1	...	...
8	Godavari, East	16	2	1,931	4	6	...	...	...	...	...	...
9	Godavari, West	9	1	726	2	1	...	...	...	...	...	...
10	Guntur	14	...	948	...	...	...	...	...	...	...	...
11	Kistna	11	...	990	...	...	...	...	...	...	...	...
12	Kurool	11	...	798	...	...	...	...	...	...	...	...
13	Madras	1	1	1	1	...	...	...	...	...	...	...
14	Madure	14	5	1,055	1	...	2	3	...	...	...	...
15	Malabar	16	4	1,749	250	634	245	50	18	...	...	...
16	Nellore	14	1	1,030	140	127	105	5	3	...	...	...
17	Nilgiris, The	5	1	57	1	...	...	...	...	...	...	...
18	North Arcot	37	2	2,020	20	...	6	26	5	...	...	...
19	Rannad	13	6	3,505	230	903	149	96	17	...	...	...
20	Salem	12	4	1,791	67	26	89	29	44	...	...	...
21	South Arcot	11	5	2,531	150	137	224	55	...	...	...	...
22	South Kanara	8	2	808	5	3	4	...	...	...	...	...
23	Tanjore	17	4	2,532	78	179	110	28	...	...	...	...
24	Tinnevely	12	1	899	4	6	...	...	...	...	...	...
25	Trichinopoly	10	3	1,072	90	356	87	16	3	...	...	...
26	Vizagapatam	18	1	2,558	2	...	1	...	4	...	...	...
	Total, Madras Presidency	316	55	39,887	1,366	2,938	1,327	382	221	119	110	49

Statement No. VII.—Deaths registered from Cholera in the Districts of Madras Presidency during each month of the year—1932—con

Number.	Districts.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio for previous years.
		(14)	(15)	(16)	(17)	(18)	Males.	Females.	Total.	Males.	Females.	Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Anantapur	...	...	...	...	...	16	9	25	0.03	0.02	0.02	1.11
2	Bellary	...	...	...	...	...	...	...	...	...	...	...	1.35
3	Chingleput	...	...	...	...	...	9	...	...	0.01	0.01	0.02	0.94
4	Chittoor	...	...	...	...	...	23	23	46	0.03	0.03	0.03	0.75
5	Coimbatore	...	...	...	...	...	598	497	1,095	0.47	0.40	0.44	0.82
6	Cuddapah	...	...	...	...	...	...	...	...	...	...	...	1.86
7	Ganjam	...	...	...	...	...	68	54	122	0.07	0.05	0.06	0.26
8	Godavari, East	...	...	...	...	...	4	2	7	0.004	0.003	0.003	0.42
9	Godavari, West	...	...	...	...	...	3	1	4	0.001	0.001	0.003	0.75
10	Guntur	...	...	...	...	...	...	...	...	...	...	...	0.49
11	Kistna	...	...	...	...	...	...	...	...	...	...	...	0.81
12	Kurool	...	...	...	...	...	...	...	...	...	...	...	1.53
13	Madras	...	...	...	...	...	...	...	...	...	...	...	0.53
14	Madura	...	...	...	...	...	...	...	...	0.02	0.01	0.01	1.01
15	Malabar	...	...	...	...	...	490	438	928	0.45	0.43	0.44	0.08
16	Nellore	...	...	...	...	...	180	119	299	0.07	0.07	0.07	1.11
17	Nilgiris, The	...	...	...	...	...	3	7	10	0.004	0.003	0.003	0.03
18	North Arcot	...	...	...	...	...	1	...	1	0.01	...	0.006	0.03
19	Rannad	...	...	...	...	...	27	12	39	0.02	0.02	0.02	1.06
20	Salem	...	...	...	...	...	616	576	1,192	0.74	0.70	0.76	0.43
21	South Arcot	...	...	...	...	...	104	88	192	0.09	0.07	0.08	0.13
22	South Kanara	...	...	...	...	...	238	203	447	0.10	0.10	0.10	1.87
23	Tanjore	...	...	...	...	...	17	5	22	0.03	0.05	0.02	1.03
24	Tinnevely	...	...	...	...	...	175	143	323	0.15	0.12	0.14	1.06
25	Trichinopoly	...	...	...	...	...	270	8	283	0.007	0.07	0.07	0.18
26	Vizagapatam	...	...	...	...	...	2	23	25	0.002	0.23	0.002	0.18
	Total, Madras Presidency	62	21	19	6	25	2,802	2,476	5,278	0.13	0.11	0.12	0.31

No. VIII.—Deaths registered from Smallpox in the Districts of the Madras Presidency during each month of the year 1932.

Number.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.	August.
		Number in each district.	Number from which deaths were reported.	Number in each district.	Number from which deaths were reported.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Anantapur	12	2	855	6	1	1	1	4	1	1	7	3
2	Bellary	12	4	918	1	1	1	1	2	1	4	1	16
3	Chingleput	10	7	2,155	75	1	1	1	2	2	4	5	1
4	Chittoor	12	3	2,201	30	1	1	1	1	1	4	13	11
5	Coimbatore	15	5	1,116	35	13	9	3	1	1	6	11	2
6	Cuddapah	11	1	897	1	18	25	31	21	11	16	11	11
7	Ganjam	11	8	4,054	125	1	1	1	1	1	1	1	1
8	Godavari, East	16	2	1,031	4	1	1	1	1	1	1	1	1
9	Godavari, West	19	2	726	5	1	1	1	1	1	1	1	1
10	Guntur	11	1	946	1	1	1	1	1	1	1	1	1
11	Kistna	11	2	990	1	1	1	1	1	1	1	1	1
12	Kurnool	11	1	798	1	1	1	1	1	1	1	1	1
13	Madras	14	10	1,085	350	13	3	16	12	15	9	10	6
14	Madura	16	10	1,742	150	52	52	44	27	34	10	67	84
15	Malabar	16	10	1,742	150	10	20	19	23	14	8	21	40
16	Nellore	11	5	1,630	80	11	6	11	30	10	3	12	12
17	Nilgiris, The	5	3	57	20	1	1	1	1	2	2	1	1
18	North Arcot	17	10	3,020	102	17	18	15	19	16	11	15	19
19	Ramanad	13	11	3,396	405	48	37	17	15	62	44	67	74
20	Salem	12	9	1,791	122	12	9	10	15	8	13	2	17
21	South Arcot	11	10	2,331	650	44	108	198	166	158	138	178	156
22	South Kanara	8	4	806	35	1	2	2	1	4	20	12	3
23	Tanjore	17	15	2,533	150	52	14	40	24	48	39	24	20
24	Tinnevely	12	10	999	110	32	19	24	9	10	39	24	20
25	Trichinopoly	10	8	1,072	104	15	15	13	13	19	20	41	50
26	Vizagapatnam	18	3	2,558	25	1	1	4	9	7	6	8	7
	Total, Madras Presidency	319	138	33,687	2,605	331	343	457	337	422	336	333	340

No. VIII.—Deaths registered from Smallpox in the Districts of the Madras Presidency during each month of the year 1932—cont.

Number.	Districts.	September.	October.	November.	December.	Total.		Number of deaths among children.		Ratio of deaths per 1,000 of population.		Mean ratio per 1,000 for previous 5 years.		
						Males.	Females.	Total.	Under 1 year.	From 1 to 10 years.	Males.		Females.	Total.
(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
1	Anantapur	...	...	5	1	4	8	12	5	0.01	0.02	0.01	0.01	0.09
2	Bellary	8	2	5	...	13	3	22	7	0.03	0.02	0.02	0.02	0.28
3	Chingleput	14	17	17	19	58	51	109	48	0.07	0.06	0.06	0.06	0.26
4	Chittoor	7	3	2	12	12	22	41	18	0.03	0.03	0.03	0.03	0.12
5	Coimbatore	1	6	4	11	43	34	77	32	0.04	0.03	0.03	0.03	0.14
6	Cuddapah	4	1	...	8	75	82	157	65	0.08	0.07	0.07	0.07	0.07
7	Ganjam	...	...	...	...	6	4	8	3	0.01	0.01	0.01	0.01	0.16
8	Godavari, East	...	...	...	5	4	4	8	1	0.01	0.01	0.01	0.01	0.12
9	Godavari, West	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Guntur	...	...	...	2	10	12	22	13	0.02	0.02	0.02	0.02	0.22
11	Kistna	...	...	...	6	5	5	13	5	0.01	0.01	0.01	0.01	0.10
12	Kurnool	...	...	...	34	104	72	176	80	0.24	0.24	0.24	0.24	0.20
13	Madras	6	35	33	36	253	288	536	166	0.23	0.23	0.23	0.23	0.19
14	Madura	...	...	...	21	106	110	216	16	0.06	0.06	0.06	0.06	0.24
15	Malabar	...	...	...	12	64	66	130	33	0.08	0.09	0.09	0.09	0.16
16	Nellore	...	...	...	5	8	18	26	5	0.09	0.09	0.09	0.09	0.07
17	Nilgiris, The	...	...	...	7	91	95	186	74	0.08	0.08	0.08	0.08	0.16
18	North Arcot	...	...	...	12	21	32	53	150	0.27	0.27	0.27	0.27	0.12
19	Ramanad	...	...	...	49	239	332	571	151	0.07	0.07	0.07	0.07	0.11
20	Salem	...	...	...	23	93	88	181	59	0.65	0.62	0.63	0.63	0.39
21	South Arcot	...	...	...	8	31	23	54	22	0.06	0.06	0.06	0.06	0.11
22	South Kanara	...	...	...	1	328	338	666	168	0.28	0.28	0.28	0.28	0.17
23	Tanjore	...	...	...	67	294	294	594	134	0.11	0.12	0.12	0.12	0.09
24	Tinnevely	...	...	...	23	133	133	266	60	0.14	0.14	0.14	0.14	0.09
25	Trichinopoly	...	...	...	21	133	133	266	106	0.02	0.02	0.02	0.02	0.23
26	Vizagapatnam	...	...	...	1	26	22	48	20	0.12	0.12	0.12	0.12	0.18
	Total, Madras Presidency	446	468	393	491	2,819	2,744	5,563	1,680	0.12	0.12	0.12	0.12	0.18

No. IX.—Deaths registered from Fevers in the Districts of the Madras Presidency during each month of the year 1932.

Districts.		Circles of registration.				Villages.		Residency during each month of the year 1932.										
Number.	(1)	(2)	(3)		(4)		Number in each district.	Number from which deaths were reported.	(5)	Number from which deaths were reported.	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			each district.	Number from which deaths were reported.	each district.	Number from which deaths were reported.												
1	Anantapur	...	12	12	855	805	761	623	711	733	654	618	512					
2	Bellary	...	12	12	618	918	293	350	646	483	369	248	288					
3	Chingleput	...	10	10	2,155	2,055	512	507	538	376	367	477	407					
4	Chittoor	...	12	12	2,261	2,261	1,256	826	739	674	647	765	642					
5	Coimbatore	...	16	16	1,116	980	1,187	939	794	814	802	758	816					
6	Cuddapah	...	11	11	877	897	841	655	624	616	701	709	618					
7	Ganjam	...	14	14	4,054	4,054	2,357	1,422	1,371	2,042	1,938	2,113	2,030					
8	Godavari, East	...	16	16	1,941	1,785	1,770	1,402	1,481	1,393	1,322	1,516	1,530					
9	Godavari, West	...	9	9	726	726	1,209	766	649	583	576	682	640					
10	Guntur	...	11	11	990	995	985	619	600	571	1,308	1,439	1,425					
11	Kistna	...	11	11	798	750	933	834	788	833	618	713	679					
12	Kurnool	...	14	14	1,085	875	173	122	735	150	157	182	125					
13	Madras	...	16	16	1,719	1,430	650	503	395	352	451	471	432					
14	Madurai	...	14	14	1,630	1,475	1,131	798	1,600	1,373	1,491	1,977	2,440					
15	Madurai	...	5	5	57	57	103	75	86	620	708	688	700					
16	North Arcot	...	17	17	2,020	1,950	1,334	977	1,128	887	912	131	113					
17	Ramanad	...	13	13	3,506	2,150	1,399	979	896	853	782	924	864					
18	Salma	...	12	12	1,791	1,478	1,593	1,243	1,208	1,269	1,356	1,007	589					
19	South Arcot	...	11	11	2,331	1,972	1,045	869	839	718	807	834	1,349					
20	South Kanara	...	8	8	808	738	909	885	684	567	618	733	888					
21	Tanjore	...	17	17	2,533	1,843	457	400	382	335	399	393	343					
22	Tinnevely	...	12	12	899	850	1,170	739	635	517	544	534	484					
23	Tiruchinopoly	...	10	10	1,072	828	828	630	609	486	541	609	504					
24	Viaagapatam	...	18	18	2,558	2,558	3,343	2,633	2,766	2,822	2,325	2,734	5,320					
25	Total, Madras Presidency	...	316	316	29,867	35,801	29,933	23,115	23,244	21,209	21,603	23,552	22,649					

No. IX.—Deaths registered from Fevers in the Districts of the Madras Presidency during each month of the year 1932—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.
		(14)	(15)	(16)	(17)	(18)	Males.	Females.	Total.	Males.	Females.	Total.	
1	Anantapur	410	470	462	493	549	3,448	3,389	6,837	639	603	651	770
2	Bellary	450	477	463	445	456	2,162	2,124	5,086	546	509	525	584
3	Chingleput	412	456	424	436	533	2,807	2,697	5,504	836	830	833	420
4	Chittoor	687	701	618	707	876	4,564	4,514	9,078	818	637	627	785
5	Coimbatore	780	832	776	843	938	5,280	4,978	10,257	434	406	420	415
6	Cuddapah	735	729	709	775	751	4,451	4,107	8,557	920	861	891	1435
7	Ganjam	2,399	2,718	2,621	2,188	2,375	13,875	13,809	27,684	1474	1242	1348	1755
8	Godavari, East	1,645	1,777	1,592	1,510	1,855	9,653	9,240	18,893	1017	952	984	1159
9	Godavari, West	1,507	1,302	667	684	968	4,495	4,470	8,965	746	721	733	1013
10	Guntur	716	941	732	791	1,026	6,745	6,439	13,184	850	840	845	1089
11	Kistna	936	846	747	766	1,105	4,628	4,436	9,064	718	717	723	874
12	Kurnoor	132	157	190	179	179	957	931	1,888	978	944	961	1638
13	Madras	374	391	383	521	713	2,855	2,800	5,655	261	251	258	285
14	Malabar	1,248	1,722	1,411	1,382	1,514	10,665	10,824	21,489	622	596	607	750
15	Nellore	822	919	976	900	1,091	6,169	4,912	11,081	695	662	679	831
16	North Arcot	810	860	938	1,089	1,118	6,132	5,939	12,071	632	602	617	1129
17	North Arcot	781	856	954	1,100	1,299	5,863	5,485	11,348	542	538	540	467
18	Ramanthapur	1,309	1,346	1,379	1,541	1,795	8,405	8,172	16,577	672	620	645	795
19	Salem	829	813	963	1,137	1,166	6,582	6,385	12,967	645	669	682	737
20	South Arcot	874	788	669	643	740	4,454	4,676	9,130	456	488	477	487
21	South Kanara	357	457	476	486	445	2,434	2,308	4,742	213	202	207	230
22	Tanjore	432	543	571	753	790	3,957	3,770	7,727	397	356	379	488
23	Tinnevely	568	545	523	802	841	3,711	3,764	7,475	397	345	391	456
24	Tiruchinopoly	2,792	3,048	2,913	2,718	3,343	16,884	16,428	33,312	1418	1313	1364	1724
25	Vizagapatnam	22,844	24,939	23,666	24,066	29,716	147,420	143,956	291,416	661	630	645	800
26	Total, Madras Presidency	22,844	24,939	23,666	24,066	29,716	147,420	143,956	291,416	661	630	645	800

No. X.—Deaths registered from Dysentery and Diarrhoea in the Districts of the Madras Presidency during each month of the year 1932.

Number.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths were reported.	Number in each district.	Number from which deaths were reported.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	12	12	865	895	133	105	82	88	67	89	119
2	Bellary	12	12	918	918	120	60	124	98	94	96	129
3	Chingleput	10	10	2,155	1,915	263	248	231	186	194	226	201
4	Chittoor	12	12	2,261	2,261	263	243	237	194	208	259	214
5	Coimbatore	16	16	1,116	1,116	821	541	495	886	659	659	680
6	Cuddapah	11	11	897	428	71	40	66	42	62	44	62
7	Ganjam	14	11	4,054	2,850	195	180	217	305	327	482	333
8	Godavari, East	16	14	1,931	957	112	106	108	168	178	249	261
9	Godavari, West	9	9	720	422	149	111	140	148	159	202	266
10	Guntur	14	14	946	546	146	91	138	137	132	146	173
11	Kistna	11	11	798	620	122	91	100	105	120	81	110
12	Kurnool	11	11	1	1	292	218	196	141	204	181	165
13	Madras	14	14	1,083	975	739	448	351	293	332	552	329
14	Madura	16	16	1,749	1,720	553	514	498	626	654	689	1,173
15	Malabar	14	14	1,660	951	219	182	167	153	148	184	193
16	Nellore	5	5	57	45	34	26	25	50	56	45	41
17	Nilgiris, The	17	17	2,020	1,450	540	525	407	369	391	339	346
18	North Arcot	13	13	3,506	1,756	495	236	160	180	152	172	135
19	Ramanad	12	12	1,791	1,240	350	219	231	201	260	304	277
20	Salem	11	11	2,331	1,743	568	440	38	248	288	389	322
21	South Arcot	8	7	808	606	353	250	166	111	110	137	182
22	South Kanara	17	16	2,533	1,345	220	236	237	149	168	150	183
23	Tanjore	12	10	390	472	914	402	323	221	225	182	274
24	Tinnevely	10	10	1,072	1,072	316	218	150	160	171	231	229
25	Trichinopoly	18	17	2,558	750	161	164	149	143	188	180	173
26	Visagapatnam	316	305	39,887	27,156	8,649	6,144	5,519	5,077	5,529	6,308	6,935
	Total, Madras Presidency											

No. X.—Deaths registered from Dysentery and Diarrhoea in the Districts of the Madras Presidency during each month of the year 1932—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.	
(1)	(2)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1	Anantapur	134	163	167	133	133	772	641	1,413	143	126	135	132
2	Bellary	200	209	197	198	185	895	846	1,741	182	177	180	213
3	Chingleput	215	268	262	299	309	1,826	1,423	3,049	136	174	155	214
4	Chittoor	229	267	292	249	354	1,565	1,469	3,034	212	207	209	262
5	Coimbatore	514	589	572	544	637	3,418	3,418	6,907	287	279	283	338
6	Cuddapah	79	60	67	72	68	385	357	722	0.80	0.72	0.76	0.93
7	Ganjam	414	329	292	249	275	1,903	1,695	3,598	202	152	175	144
8	Godavari, East	354	258	192	124	135	1,192	1,054	2,246	125	109	110	0.88
9	Godavari, West	271	247	182	150	162	1,135	1,042	2,177	189	168	178	121
10	Guntur	455	332	260	200	301	1,402	1,430	2,832	156	142	149	103
11	Kistna	291	325	143	135	160	1,071	979	2,050	169	158	164	129
12	Kurnool	231	142	124	127	140	775	718	1,493	119	142	146	127
13	Madras	188	209	230	267	323	1,388	1,256	2,624	401	430	415	595
14	Madura	297	337	369	592	665	2,638	2,406	5,131	244	224	234	288
15	Malabar	929	568	413	358	441	3,600	3,820	7,420	210	210	210	217
16	Nellore	268	230	201	204	251	1,212	1,150	2,362	163	155	159	101
17	Nilgiris, The	34	36	39	21	27	229	218	437	256	277	268	498
18	North Arcot	341	378	389	408	714	2,559	2,435	4,994	226	214	220	231
19	Ramanad	181	179	285	346	419	1,544	1,510	3,054	177	156	163	162
20	Salem	279	282	273	317	433	1,672	1,733	3,425	138	143	141	184
21	South Arcot	287	349	343	444	525	2,359	2,086	4,445	143	178	155	185
22	South Kanara	187	165	151	143	242	1,126	1,031	2,157	170	145	156	210
23	Tanjore	196	220	261	282	340	1,335	1,410	2,745	117	114	115	124
24	Tinnevely	224	267	336	430	725	2,248	2,325	4,573	228	219	224	201
25	Trichinopoly	273	302	331	363	464	1,729	1,594	3,323	185	163	174	193
26	Visagapatnam	260	237	202	140	168	1,181	974	2,155	0.9	0.78	0.85	1.13
	Total, Madras Presidency	7,331	6,943	6,582	6,833	8,561	41,180	39,230	80,410	185	172	178	183

No. XI.—Deaths registered from Respiratory Diseases in the Districts of the Madras Presidency during each month of the year 1932.

Number.	Districts.	Circles of registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number of deaths from respiratory diseases which were reported.	Number in each district.	Number of deaths from respiratory diseases which were reported.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Anantapur	12	12	805	805	267	233	276	245	211	234	201
2	Bellary	12	12	918	918	265	279	333	242	182	290	232
3	Chingleput	10	10	2,155	1,670	291	243	285	233	256	240	248
4	Chittoor	12	12	2,231	2,231	244	417	412	326	326	310	306
5	Coimbatore	16	14	1,116	950	742	564	516	491	535	503	559
6	Cuddapah	11	10	897	710	178	155	150	159	163	120	145
7	Ganjam	14	10	4,054	750	177	413	138	132	147	188	179
8	Godavari, East	16	12	1,631	554	302	181	246	221	240	217	250
9	Godavari, West	9	9	725	543	320	181	246	221	240	217	250
10	Guntur	14	14	945	892	442	278	372	334	374	409	465
11	Kistna	11	10	990	892	442	278	372	334	374	409	465
12	Kurcool	11	11	788	530	117	177	212	214	231	236	240
13	Madras	14	14	1,085	628	507	426	403	371	467	489	409
14	Madura	16	16	1,744	1,744	601	617	578	621	637	581	764
15	Malabar	14	10	1,650	780	241	192	255	195	213	213	197
16	Nellore	5	5	57	54	44	38	32	43	68	62	51
17	Nilgiris, The	17	15	2,020	1,260	344	832	202	303	252	269	272
18	North Arcot	13	11	3,506	1,500	383	325	238	251	280	258	257
19	Ramanad	12	10	1,791	864	245	242	242	232	248	272	224
20	Salem	11	11	2,331	1,450	308	338	322	306	302	333	298
21	South Arcot	8	8	808	602	217	181	155	140	147	154	169
22	South Kanara	17	10	2,533	570	213	184	174	173	180	203	143
23	Tanjore	12	11	989	780	328	297	283	261	231	220	238
24	Tinnevely	10	10	1,072	850	295	188	222	202	215	200	184
25	Trichinopoly	18	14	2,558	950	259	217	232	210	178	231	192
26	Vizagapatnam	316	292	39,887	23,665	8,325	7,690	7,697	7,970	7,804	7,412	7,445
	Total, Madras Presidency											

No. XI.—Deaths registered from Respiratory Diseases in the Districts of the Madras Presidency during each month of the year 1932—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.	Males.	Females.	Total.	
(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Anantapur	208	226	231	223	236	1,508	1,293	279	253	267	294
2	Bellary	224	246	239	233	239	1,151	1,315	281	276	285	286
3	Chingleput	245	247	291	270	296	1,688	1,380	292	169	186	172
4	Chittoor	281	289	297	333	381	2,085	1,997	282	253	269	313
5	Coimbatore	555	579	554	631	645	3,697	3,220	303	263	283	283
6	Cuddapah	151	155	176	213	195	1,070	879	221	189	205	183
7	Ganjam	211	233	204	311	415	1,285	1,172	136	105	120	080
8	Godavari, East	432	442	484	389	451	2,501	2,326	264	240	250	235
9	Godavari, West	290	251	239	261	354	1,617	1,553	252	250	250	252
10	Guntur	427	504	471	492	509	2,858	2,299	278	228	253	271
11	Kistna	357	479	394	323	321	2,266	1,876	303	243	267	347
12	Kurcool	274	211	225	284	220	1,452	1,256	255	243	271	271
13	Madras	400	426	523	546	625	3,381	2,602	870	869	870	1316
14	Madura	369	400	425	579	625	3,381	3,065	311	275	291	287
15	Malabar	668	660	580	582	633	4,312	3,810	252	182	216	213
16	Nellore	219	237	232	232	238	1,495	1,229	198	166	183	144
17	Nilgiris, The	53	71	48	77	45	339	291	378	388	382	539
18	North Arcot	345	357	336	349	440	2,189	1,777	154	156	175	155
19	Ramanad	207	279	272	304	329	1,567	1,577	207	162	183	195
20	Salem	243	228	225	235	303	1,631	1,577	135	110	122	123
21	South Arcot	322	300	303	424	411	2,265	1,850	185	150	168	153
22	South Kanara	186	196	201	170	207	1,086	1,017	164	144	153	153
23	Tanjore	176	170	163	217	197	1,236	987	108	079	093	098
24	Tinnevely	209	231	238	289	314	1,749	1,448	182	137	159	161
25	Trichinopoly	166	237	235	219	349	1,464	1,338	157	137	147	158
26	Vizagapatnam	302	281	243	252	244	1,501	1,345	126	107	117	115
	Total, Madras Presidency	7,554	7,966	7,350	8,310	9,180	50,770	43,642	228	190	209	213

No. XII.—Deaths registered from Plague in the Districts of the Madras Presidency during each month of the year 1932.—cont.

Number.	Districts.	Ratio of deaths per 1,000 of population.											
		August. (14)	September. (15)	October. (16)	November. (17)	December. (18)	Total. (19)	Males. (20)	Females. (21)	Total. (22)	Males. (23)	Females. (24)	Total. (25)
1	Anantapur	..	..	..	..	1	1	1	1	..002	..	..001	..04
2	Bellary	..	..	18	51	105	67	168	175	..4	..23	..18	..46
3	Chingleput	..	..	..	..	..	..	..	..	..	..	..	..002
4	Chittoor	..	..	..	..	48	29	51	120	..08	..07	..05	..02
5	Coimbatore	10	12	8	10	..	..	..	..	..	..	..	..
6	Cuddapah	..	..	..	..	..	..	..	..	..	..	..	..
7	Ganjam	..	..	..	..	..	..	..	..	..	..	..	..
8	Godavari, East	..	..	..	..	..	..	..	..	..	..	..	..002
9	Godavari, West	..	..	..	..	..	..	..	..	..	..	..	..004
10	Guntur	..	..	..	..	..	..	..	..	..	..	..	..002
11	Kistna ..	..	..	..	..	..	..	..	..	..	..	..	..
12	Kurnool	..	..	..	..	..	..	..	..	..	..	..	..
13	Madras ..	85	131	56	92	134	383	589	652	..25	..51	..43	..33
14	Madura ..	2	2	..	1	11	13	17	80	..008	..009	..008	..051
15	Malabar	..	..	..	..	..	..	..	..	..	..	..	..002
16	Malabar ..	..	..	..	..	..	..	..	..	..	..	..	..
17	Nilgiris ..	..	..	1	..	..	2	1	3	..02	..01	..02	..08
18	North Arcot	..	..	..	3	8	39	43	82	..03	..04	..04	..011
19	Remond ..	..	..	..	..	..	..	..	..	..	..	..	..
20	Salem ..	..	..	25	14	8	91	103	194	..04	..09	..08	..014
21	South Arcot	18	19	..	..	..	..	..	..	..	..	..	..
22	South Kanara	..	..	..	..	..	2	1	3	..003	..001	..002	..
23	Tanjore ..	1	..	..	..	..	..	..	..	..	..	..	..001
24	Tinnevely	..	..	..	..	..	..	..	..	..	..	..	..001
25	Trichinopoly	..	..	..	..	..	..	..	..	..	..	..	..
26	Vizagapatam	..	..	..	..	..	..	..	..	..	..	..	..
	Total, Madras Presidency	116	167	100	171	310	687	924	1,561	68	101	163	..05

APPENDIX II.

Table showing Health Services in Rural and Urban areas of the Madras Presidency during 1932 (prescribed in G.O. Ms. No. 1235, P.H., dated 7th June 1933).

Districts.	Rural areas.										Urban areas.									
	Medical officers of Health.										Medical officers of Health.									
	Holding D.P.H. and other Foreign qualifications.					Holding D.P.H., Calcutta.					Holding D.P.H., Calcutta.					Holding D.P.H., Calcutta.				
	Whole time.	Part time.	Whole time.	Part time.	Whole time.	Whole time.	Part time.	Whole time.	Part time.	Whole time.	Whole time.	Part time.	Whole time.	Part time.	Whole time.	Whole time.	Part time.	Whole time.	Part time.	Whole time.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Ganjam ..	1																			
Vizagapatnam ..																				
East Godavari ..																				
West Godavari ..																				
Krishna ..																				
Guntur ..																				
Nellore ..																				
Chingleput ..																				
South Arcot ..																				
Trichinopoly ..																				
Tanjore ..																				
Madurai ..																				
Ramanathapuram ..																				
Tirunelveli ..																				
Kanniyakumari ..																				
Cuddalore ..																				
Arundhaty ..																				
Chittoor ..																				
North Arcot ..																				
South Arcot ..																				
Chennai ..																				
Coimbatore ..																				
Nikur ..																				
Madurai ..																				
South Kanara ..																				
Madras ..																				

* Note.—This includes the officers at Headquarters of the Public Health Department, one Health officer and two Assistant Health officers of the Madras Corporation.

APPENDIX III.

Table showing Maternity and Child-Welfare Centres, Health Visitors and Trained Midwives in Rural and Urban areas in Madras Presidency during 1932 (prescribed in G.O. Ms. No. 235, P.H., dated 7th June 1933)

Serial number.	Districts.	Maternity and child-welfare centres maintained by						Trained visitors.		Trained mid-wives.		Trained dais.	
		Government.		Local and Municipal bodies.		Other agencies.		Rural.	Urban.	Rural.	Urban.	Rural.	Urban.
		Rural.	Urban.	Rural.	Urban.	Rural.	Urban.						
								(2)	(3)	(4)	(5)	(6)	(7)
(1)													
1	Anantapur ..	..	..	..	..	2	1	..	..	17	6	..	..
2	Bellary ..	..	..	..	1	5	1	..	..	55	12	..	..
3	Chingleput ..	..	..	3	1	..	..	..	1 (discharged from 1st Nov. 1932).	..	16	..	..
4	Chittoor ..	..	..	2	..	5	1	..	..	39	8	..	..
5	Coimbatore ..	..	..	7	1	..	3	..	..	26	38	2	..
6	Cuddalore ..	..	..	1	1	1	..	..	..	17	8	..	..
7	Ganjam ..	..	..	..	..	..	1	..	1	25	8	..	..
8	Godavari, East ..	..	..	..	1	..	1	..	..	59	23	..	..
9	Godavari, West ..	..	..	2	1	..	1	..	..	20	6	..	..
10	Guntur ..	..	..	1	2	..	..	..	..	37	27	1	..
11	Krishna ..	..	..	..	..	..	1	..	..	23	13	..	..
12	Kurnool ..	..	..	..	1	..	..	..	..	14	12	..	..
13	Madras ..	..	..	..	12	..	..	..	..	..	192	..	..
14	Madurai ..	..	..	3	3	..	1	1	..	29	25	..	..
15	Malabar ..	..	..	..	1	..	..	..	..	41	52	..	..
16	Nellore ..	..	..	..	..	..	7	..	..	39	23	..	..
17	Nilgiris The ..	..	..	..	2	1	1	..	..	8	11	..	..
18	North Arcot ..	..	..	..	4	2	..	..	..	53	19	..	..
19	Ramanad ..	..	..	3	..	..	1	..	..	45	5	..	..
20	Salim ..	..	..	15	2	..	..	..	..	35	8	..	..
21	South Arcot ..	..	..	..	2	..	..	..	1	38	13	..	..
22	South Kanara ..	..	..	..	2	1	2	..	..	28	28	26	..
23	Tanjore ..	..	..	..	..	..	4	..	..	21	42	..	..
24	Tinnevely ..	..	..	..	1	..	2	1	1	58	42	..	..
25	Trichinopoly ..	..	..	..	1	1	2	..	..	26	21	..	..
26	Vizagapatam ..	..	..	3	1	..	2	..	..	33	21	..	..
	Total	..	..	49	40	18	32	4	35	781	671	29	4

VACCINATION STATEMENTS.

Statement showing inspection of Vaccinated Cases by D.H.O.s* and
M.H.O.s† during 1932-1933.

By D.H.Os.

By M.H.Os.

Name of district.	Total number of cases vaccinated during the year.	Total number of cases inspected during the year.	Percentage of cases inspected to total number vaccinated.	Name 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.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Anantapur ...	43,717	1,858	4.2	1. Adoni ...	1,737	1,640	99.4
2. Arcot, North ...	132,101	7,532	5.7	2. Bellary ...	4,321	3,308	76.6
3. Arcot, South ...	144,564	3,548	2.5	3. Berhampur ...	1,892	1,656	87.5
4. Bellary ...	39,905	1,729	4.3	4. Bezawada ..	3,119	2,358	75.6
5. Chingleput ...	86,717	1,904	2.2	5. Bodinayakkanur.	1,475	1,115	77.6
6. Chittoor ...	68,531	2,454	3.6	6. Calicut ...	7,773	5,597	71.6
7. Coimbatore ...	134,038	3,618	2.7	7. Cannanore ...	1,938	1,430	74.0
8. Cuddapah ...	41,451	434	1.0	8. Chidambaram ...	1,537	1,326	86.3
9. Ganjān ...	102,273	2,558	2.6	9. Chingleput ...	2,713	2,716	99.9
10. Godavari, East ...	67,707	1,043	1.5	10. Cocanada ...	4,493	3,110	69.2
11. Godavari, West ...	44,360	1,852	4.2	11. Cochin ...	2,784	1,986	71.3
12. Guntūr ...	90,541	636	0.8	12. Coimbatore ...	6,713	4,913	73.2
13. Kistna ...	64,518	1,968	3.1	13. Conjeeveram ...	3,646	3,238	90.2
14. Kurnool ...	44,716	1,372	3.1	14. Coonoor ...	1,893	1,667	88.1
15. Madura ...	122,726	1,831	1.5	15. Cuddalore ...	6,178	4,750	76.9
16. Malabar ...	187,374	7,714	4.1	16. Cuddapah ...	1,994	1,598	80.0
17. Nellore ...	73,308	832	1.1	17. Dindigul ...	7,129	5,067	71.1
18. Nilgiris, The ...	18,255	1,570	8.6	18. Ellore ...	4,363	3,330	77.0
19. Ramnad ...	102,652	3,123	3.0	19. Guntūr ...	5,221	2,973	56.9
20. Salem ...	103,550	850	0.8	20. Hatturpur ...	1,672	1,249	74.7
21. South Kanara ...	79,117	2,755	3.5	21. Hospet ...	1,644	1,261	76.7
22. Tanjore ...	92,578	871	0.9	22. Kambakonam ...	7,193	1,777	24.7
23. Tinnevely ...	111,049	2,299	2.1	23. Kurnool ...	2,539	1,879	73.1
24. Trichinopoly ...	78,015	1,588	2.0	24. Madura ...	33,780	26,602	78.8
25. Vizagapatam ...	89,174	1,957	2.2	25. Mangalore ...	6,964	5,063	72.7
				26. Mannargudi ...	1,100	829	75.4
				27. Masulipatam ...	3,302	2,605	75.9
				28. Mayavaram ...	1,900	1,401	73.7
				29. Negapatam ...	2,392	1,974	82.6
				30. Nellore ...	7,655	6,205	81.1
				31. Ootacamund ...	1,855	1,460	78.7
				32. Palghat ...	7,214	1,433	19.9
				33. Periyakulam ...	3,452	2,586	74.9
				34. Pollachi ...	1,146	894	78.0
				35. Proddatur ...	1,152	1,016	88.2
				36. Rajahmundry ...	3,023	2,221	73.3
				37. Salem ...	11,712	9,497	81.1
				38. Saidapet ...	4,144	1,324	32.2
				39. Srirangam ...	1,963	1,458	74.1
				40. Srivilliputtur ...	1,443	1,086	75.3
				41. Tanjore ...	6,484	4,580	70.6
				42. Tellicherry ...	1,972	1,523	77.2
				43. Trichinopoly ...	22,938	17,860	77.9
				44. Tinnevely ...	6,522	4,994	76.6
				45. Tuticorin ...	23,212	19,226	82.2
				46. Vellore ...	4,019	3,540	88.1
				47. Vizagapatam ...	4,763	3,894	81.8
				48. Vizianagram ...	2,647	2,078	78.5
				49. Virudhunagar ...	2,099	1,920	91.5

STATEMENT No. I SHOWING THE PARTICULARS OF
VACCINATION IN THE MADRAS PRESIDENCY FOR
THE OFFICIAL YEAR 1932-33.

N.B.—No percentage has been fixed for the D.H.O.'s verification of vaccination cases.

* D.H.Os. = District Health Officers.

† M.H.Os. = Municipal Health Officers.

Statement No. I showing the Particulars of Vaccination in the Madras Presidency for the official year 1932-33—cont.

Number.	Districts.	Re-vaccination.			Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.	Percentage of cases of unknown to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average number of deaths from smallpox during previous 5 years.
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.		Primary vacol.	Re-vaccination.	Number.	Ratio per 1,000.	
(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	
1	Agency districts—											
2	Gaujam ..	1,915	741	170	98.4	51.3	...	3.8	10.5	...	...	...
3	Godavari ..	6,701	2,032	883	99.3	37.2	...	7.3	13.9	...	...	...
4	Visagapatam ..	7,370	2,191	1,408	97.2	36.7	...	6.3	19.1	...	...	...
5	Total of Agency districts	15,686	4,964	2,511	97.3	37.7	36.9	5.9	16.0	61,352	34.8	...
6	Anantapur ..	11,058	3,377	1,362	98.9	34.5	32.9	7.6	12.3	39,723	30.5	0.1
7	Arct, North ..	65,681	24,680	8,128	98.8	42.8	40.5	6.5	12.4	44,355	32.5	0.2
8	Arct, South ..	75,682	24,353	10,212	98.3	37.1	36.8	8.0	13.5	63,769	27.1	0.4
9	Bellary ..	11,849	3,150	1,396	99.5	30.1	34.1	5.3	11.8	20,352	35.1	0.2
10	Chingleput ..	20,456	20,228	6,569	98.7	46.0	35.1	5.3	12.9	46,585	30.4	0.3
11	Chittoor ..	20,009	12,671	2,720	98.4	44.8	33.9	0.2	8.8	43,939	31.3	0.1
12	Coimbatore ..	7,886	24,494	9,171	98.8	40.0	37.1	9.3	13.0	70,949	31.6	0.1
13	Cauvery-Mettur Project	11,424	1,919	3,938	98.6	25.6	...	20.5	34.4	2,016	...	...

12	Cuddapah ..	15,079	3,018	1,084	97.8	22.5	29.8	7.0	11.2	26,477	29.2	0.1
13	Ganjam ..	34,332	12,081	4,263	98.6	40.2	37.7	8.7	12.4	56,908	28.8	0.1
14	Godavari, East ..	23,285	6,204	3,328	98.4	31.5	30.1	8.7	15.2	45,869	29.9	0.1
15	Godavari, West ..	7,864	2,643	813	99.8	37.6	31.5	7.4	10.3	30,883	32.1	0.1
16	Guntur ..	32,539	8,753	3,653	99.2	30.3	32.5	6.6	11.3	55,791	29.6	0.1
17	Kistna ..	32,066	13,032	4,497	98.9	47.1	37.8	6.8	13.7	33,010	29.0	0.2
18	Kurnool ..	10,537	2,777	1,306	97.8	25.2	33.8	9.1	14.8	30,083	31.1	0.1
19	Madura ..	66,324	21,757	8,552	98.7	37.7	38.2	9.1	12.9	59,555	31.4	0.1
20	Malabar ..	95,333	40,435	10,773	99.0	47.8	38.2	8.1	11.3	120,325	36.5	0.1
21	Nellore ..	36,513	14,051	3,460	98.4	42.2	35.7	4.7	10.8	44,911	31.2	0.2
22	Nilgiris, The ..	14,810	4,864	1,405	98.8	36.3	61.6	8.0	9.5	7,946	60.9	0.1
23	Rannad ..	60,100	10,227	7,932	98.6	36.8	34.1	7.0	13.1	52,261	30.1	0.1
24	Salem ..	41,861	10,275	4,982	98.6	27.9	28.6	7.1	11.9	69,965	30.0	0.1
25	South Kanara ..	38,096	14,991	4,925	99.4	45.2	40.3	0.8	12.9	45,521	34.9	0.1
26	Tanjore ..	39,276	13,428	7,464	98.3	42.2	28.3	10.5	19.0	55,215	25.9	0.3
27	Tinnevely ..	53,849	18,424	6,334	98.2	38.8	37.3	8.2	11.8	68,900	31.4	0.1
28	Trichinopoly ..	34,697	14,597	5,530	99.3	50.0	31.6	7.4	15.9	45,128	26.2	0.1
29	Viragapatam ..	18,216	5,042	1,971	98.6	31.0	29.8	7.1	10.8	69,957	30.3	0.2
Total of districts		998,154	344,839	120,592	98.5	39.7	35.4	7.3	13.0	1,333,643	31.7	0.1

Number.	Municipalities.	(3)	(4)	Total number of persons vaccinated.			(8)	Primary vaccination.					(14)
				Total number of persons vaccinated.		Total number of operations.		Successful.					
				Males.	Females.			Total.	Under 1 year.	1 and under 5 years.	Above 5 years.	Total of all ages.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Adoni	35,835	1	811	923	1,734	1,734	1,359	1,078	271	4	1,353	2
2	Asakapalle	23,876	1	642	405	1,047	1,047	763	270	331	101	762	...
3	Anantapur	15,069	1	570	232	802	802	598	290	610	23	537	38
4	Bellary	47,578	3	2,562	1,751	4,320	4,320	1,734	1,210	510	35	1,755	...
5	Bertampur	87,750	1	1,118	770	1,889	1,889	1,228	947	245	25	1,217	...
6	Buzwada	60,427	2	1,061	1,158	2,219	2,219	1,814	1,024	440	132	1,598	...
7	Bidilparam	9,829	1	233	226	459	459	328	243	41	40	324	...
8	Bodinayakanur	27,086	1	930	540	1,470	1,470	940	779	131	19	939	3
9	Calicut	99,273	5*	4,545	3,221	7,766	7,766	1,553	1,809	988	407	3,154	15
10	Cannanore	34,236	2	1,178	753	1,931	1,931	826	400	244	122	766	49
11	Chicalole	16,588	1	327	333	660	660	423	369	53	1	423	...
12	Chidambaram	25,084	1	1,113	405	1,518	1,518	510	323	132	10	455	...
13	Chingleput	14,358	1	1,890	828	2,718	2,718	425	277	163	55	495	...
14	Chirala	18,563	1	2,277	1,044	3,321	3,321	744	366	308	73	742	...
15	Chittoor	22,018	1	578	707	1,285	1,285	520	247	250	19	520	...
16	Cocanada	65,352	2	2,844	1,589	4,433	4,433	2,291	1,145	840	108	2,093	...
17	Cochin	22,818	2	1,495	1,265	2,760	2,760	1,034	635	278	119	1,022	...
18	Colebatoor	95,108	4	4,354	2,903	7,257	7,257	2,994	1,702	973	286	2,964	23
19	Cortaveeram	65,268	2	2,808	1,535	4,343	4,343	2,336	1,830	400	10	2,219	...
20	Connor	14,323	1	1,749	844	2,593	2,593	456	394	63	16	473	...
21	Cuddalore	59,037	3	4,035	2,142	6,177	6,177	1,431	842	469	114	1,426	...
22	Cuddalore	22,602	1	1,579	615	2,194	2,194	881	439	376	51	836	15

23	Dhārūpuraṃ ...	1	520	874	894	707	363	313	19	685
24	Dindigul ...	2	4,793	2,336	7,129	1,117	878	176	28	10-2
25	Ellore ...	2	2,749	1,614	4,363	2,182	1,364	712	107	2,183
26	Erode ...	24	1,058	660	1,716	898	615	358	26	898
27	Guduvāttam ...	1	514	334	848	644	391	185	19	595
28	Guntūr ...	2	2,267	2,314	5,211	2,605	1,155	667	178	2,000
29	Hindupur ...	1	1,131	581	1,662	647	487	119	20	1,278
30	Hospet ...	1	933	678	1,614	1,279	1,124	147	2	1,273
31	Karāikudi ...	1	990	634	1,830	555	160	311	83	584
32	Karūr ...	1	1,398	518	1,886	895	240	516	87	893
33	Kodaikānaḷ ...	1	2,597	2,016	4,583	330	216	66	30	312
34	Kumbhakonaṃ ...	44	4,785	2,406	7,191	1,798	1,351	477	111	1,929
35	Kurucō ...	1	1,370	979	2,549	1,703	1,242	434	18	1-94
36	Madras ...	51	60,184	57,404	151,288	3,025	20,266	8,998	458	29,721
37	Madura ...	12	21,149	12,621	33,770	2,314	6,309	1,749	121	6,384
38	Mangalore ...	2	3,895	3,274	6,839	3,095	2,221	745	108	3,075
39	Mannargudi ...	1	670	430	1,100	771	372	307	43	723
40	Masulipatam ...	3	2,171	1,126	3,297	1,099	858	668	95	1,616
41	Māyavaram ...	1	1,171	729	1,900	824	490	306	24	820
42	Nandiyāl ...	1	540	468	1,008	711	430	223	46	649
43	Narasaraopet ...	1	397	382	779	495	294	178	21	491
44	Nagapatnaṃ ...	3	1,423	1,09	2,392	1,434	995	358	65	1,428
45	Nellore ...	2	3,994	3,650	7,644	3,822	816	785	243	1,844
46	Ongole ...	1	627	655	1,322	572	821	176	48	545
47	Ootacamund ...	2	1,088	764	1,852	770	557	182	27	768
48	Palacole ...	1	3-2	207	589	376	194	144	9	347
49	Palanchoth ...	2	3,760	1,901	5,661	2,831	761	980	312	2,053
50	Palghat ...	3	4,923	3,175	7,208	1,374	705	586	100	1,341
51	Palni ...	1	1,072	661	1,733	671	381	201	17	589
52	Parākāimedi ...	2	2,007	629	2,638	654	548	22	84	654
53	Peddāpuraṃ ...	1	419	319	738	632	315	308	11	632
54	Periyakūlaṃ ...	1	1,878	1,563	3,441	993	753	148	79	980
55	Pollāchi ...	1	880	316	1,146	456	244	177	5	426
56	Prodhātūr ...	1	716	435	1,151	759	595	121	5	721
57	Rājāhmunḍry ...	2	1,630	1,479	3,009	2,293	1,221	734	286	2,241
58	Saldapet ...	1	2,680	1,484	4,144	3,74	445	573	55	873
59	Salem ...	4	6,458	5,253	11,711	2,928	3,032	984	85	3,022
60	Sivakāśi ...	1	558	282	620	523	461	61	1	523

* One temporary vaccinator for three months.

† One temporary vaccinator for about six months.

† One vaccinator for two months.

Statement No. I showing the Particulars of Vaccination in the Madras Presidency for the official year 1932-33—cont.

Number.	Municipalities.	Re-vaccination.		Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.		Percentage of cases of unknown to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average number of deaths from smallpox during previous 5 years.	
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.	(20)	Primary vacel-nation.	(21)	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Adori	378	261	31	99.7	75.2	45.3	0.1	8.2	1,493	41.9	1	0.1
2	Anakapalle	234	125	...	99.9	44.0	37.9	...	...	835	35.7	8	0.3
3	Anantapur	825	93	17	100.0	30.2	41.6	0.2	5.2	559	37.0	10	0.7
4	Bellary	2,527	621	142	99.9	26.0	49.9	2.1	5.6	1,482	31.2	5	0.1
5	Berhampur	684	363	3	99.1	54.9	41.9	...	0.6	1,504	39.8	1	0.1
6	Berwada	1,505	611	109	99.8	43.8	33.0	0.8	7.2	2,160	35.7	9	0.2
7	Bimlipatam	156	35	...	98.8	22.4	37.3	...	...	333	35.1	1	0.1
8	Bodinaiyakkandur	529	247	59	98.5	52.6	43.5	0.3	11.2	1,014	37.5	1	0.1
9	Calicut	4,590	1,159	813	99.5	30.7	43.4	0.5	17.7	5,563	58.0	122	1.2
10	Cananore	1,107	159	132	98.8	16.3	27.0	5.9	11.9	1,321	38.6	50	1.5
11	Chidambaram	237	194	...	100.0	81.9	37.2	...	...	757	45.6	4	0.3
12	Chingleput	1,027	250	178	90.8	29.4	27.7	5.9	17.3	940	37.5	20	0.8
13	Chingleput	2,223	540	...	100.0	24.3	73.1	...	...	586	40.8	3	0.2
14	Chirala	2,580	997	400	98.7	47.7	32.2	...	19.0	540	29.0	1	0.1
15	Chittoor	765	151	66	100.0	21.6	30.5	...	8.6	664	30.2	2	0.1
16	Cocanada	2,202	507	735	95.4	34.6	34.4	4.2	33.4	1,971	29.9	9	0.2
17	Cochin	1,760	324	246	99.8	21.0	58.0	...	12.3	1,488	65.2	37	1.6
18	Columbore	3,719	889	199	99.8	16.7	37.3	0.8	5.4	3,221	38.8	21	0.2
19	Conjeevaram	1,320	1,005	77	100.0	80.9	50.0	3.3	5.8	2,215	34.0	14	0.2
20	Coonoor	1,417	585	17	100.0	41.8	60.8	0.6	1.2	685	48.5	1	0.1
21	Cuddalore	4,747	2,184	183	92.9	47.4	60.8	0.3	3.9	2,427	41.1	9	0.2
22	Cuddapah	1,113	265	10	100.0	24.0	50.0	1.7	0.9	689	30.5	1	0.1

23	Dakshinam	191	80	8	99.4	43.7	42.5	1.1	4.2	606	33.3	15	0.8
24	Dindigul	6,022	1,439	707	98.1	27.1	57.8	1.3	11.7	1,159	26.6	2	0.1
25	Ellore	2,180	1,057	189	100.0	53.1	55.5	...	8.7	2,889	50.0	3	0.1
26	Eronda	698	113	59	99.4	17.7	33.0	...	8.5	807	24.0	20	0.8
27	Gadagadam	213	69	45	98.3	41.1	26.9	6.1	21.1	1,569	28.7	24	1.0
28	Gentur	3,191	766	914	99.0	31.0	41.5	0.4	18.6	554	39.0	1	0.1
29	Himnapur	1,025	157	57	99.1	16.9	55.1	2.3	9.5	938	43.3	5	0.2
30	Koster	365	55	13	99.9	15.6	61.3	0.4	3.6	488	18.8	8	0.4
31	Karikkudi	1,075	199	196	100.0	22.6	34.7	0.2	18.2	782	38.4	1	0.1
32	Karur	981	630	...	100.0	63.5	70.7	0.2	...	323	49.6	...	...
33	Kodakkal	4,200	2,739	520	98.7	73.2	46.7	4.2	12.2	2,406	38.6	15	0.2
34	Kumbakonam	5,246	746	3,010	99.6	38.5	43.1	...	57.5	1,452	42.0	2	0.1
35	Kurucel	561	144	201	89.4	21.8	52.0	0.2	28.8	2,765	46.0	203	0.3
36	Madras	124,492	21,003	25,871	99.9	21.9	70.3	0.2	20.8	11,243	61.8	28	0.2
37	Madura	27,471	14,229	889	99.7	53.4	112.7	0.1	8.1	3,475	52.1	15	0.2
38	Mangalore	3,869	2,213	254	99.5	61.2	70.2	0.2	6.6	810	28.8	46	2.0
39	Manjeri	329	60	89	99.3	37.5	85.7	5.6	27.1	2,266	39.8	1	0.1
40	Masulipatam	1,657	666	120	98.9	33.4	39.0	0.7	7.2	931	29.2	11	0.3
41	Meyyatham	1,070	382	265	99.9	47.1	37.7	0.4	24.6	557	41.3	1	0.1
42	Nandyal	268	121	6	99.1	41.4	36.3	0.8	2.0	2,189	40.8	21	0.4
43	Narasaraopet	302	160	22	99.4	57.1	42.2	0.2	7.3	1,901	44.3	1	0.1
44	Nagapattinam	958	469	4	99.6	49.2	59.1	...	0.4	1,552	56.1	8	0.3
45	Nellore	5,766	2,567	547	99.1	45.9	60.5	1.5	4.5	2,778	34.7	1	0.1
46	Onole	756	484	73	99.1	67.9	44.6	...	14.9	1,901	44.3	1	0.1
47	Ottacorum	1,686	336	149	99.5	36.2	44.6	...	32.9	1,900	37.7	6	0.1
48	Palacode	213	76	70	98.6	53.1	25.0	6.4	10.2	1,579	32.2	40	0.8
49	Palameddai	8,064	1,266	373	98.6	38.5	63.8	1.3	8.5	518	29.5	2	0.1
50	Palghat	5,840	2,447	496	98.7	45.8	77.2	1.1	4.8	778	38.8	1	0.1
51	Palni	1,075	130	52	95.5	12.7	35.6	6.6	...	769	40.9	1	0.1
52	Palakkudi	1,988	1,347	...	100.0	67.8	98.7	...	...	1,152	56.1	13	0.6
53	Pattapuram	166	79	9	100.0	51.4	41.0	...	...	773	38.4	16	0.8
54	Pettakulam	2,438	1,562	...	98.7	75.7	123.5	...	14.8	1,855	58.7	1	0.1
55	Pollachi	690	217	103	99.3	37.0	29.1	5.9	1.5	1,879	41.8	2	0.1
56	Proddur	393	119	63	99.7	36.6	41.7	4.7	23.0	3,652	35.7	6	0.1
57	Rajahmundry	735	250	11	98.5	34.5	39.2	0.7	1.3	631	40.8	1	0.1
58	Saidapet	3,265	1,041	751	99.5	41.4	57.9	0.2	...	...	...	...	...
59	Salem	8,680	4,254	111	99.7	49.6	71.2	...	7.2	...	...	...	...
60	Sivakasi	87	76	7	100.0	84.4	39.4	...	...	...	...	...	...

Statement No. 1 showing the Particulars of Vaccination in the Madras Presidency for the official year 1932-33—cont.

Number.	(1)	(2)	(3)	(4)	Total number of persons vaccinated.		(7)	(8)	Primary vaccination.					(14)		
					Males.	Females.			Total.	Average number of persons vaccinated.	Total number of operations.	Successful.				
												Under 1 year.	1 and under 5 years.		Above 5 years.	Total of all ages.
Municipalities.																
Average number of persons vaccinated.																
Total number of persons vaccinated.																
Total of all ages.																
Unknown.																
61	Srirangam	...	21,663	1	1,197	771	1,968	1,968	738	456	233	40	729	...		
62	Srivillipattur	...	32,355	1	901	473	1,374	1,434	933	763	150	4	917	...		
63	Tedpatra	...	12,630	1	317	218	535	535	479	370	84	10	464	...		
64	Tanjore	...	66,859	4*	4,968	2,116	6,084	1,021	1,731	1,036	486	131	1,703	...		
65	Tollicherry	...	30,340	2	966	1,066	1,972	986	951	628	235	58	931	...		
66	Tenali	...	34,580	1	901	740	1,641	1,641	1,152	402	576	161	1,139	...		
67	Tinnevely	...	57,078	2	4,055	2,454	6,519	3,260	3,034	1,362	1,138	513	2,931	...		
68	Trichinopoly	...	142,843	5	13,636	9,198	22,834	4,571	5,346	2,691	2,003	614	5,313	...		
69	Tirupali	...	19,133	3†	4,035	2,589	6,624	2,205	514	377	129	8	514	...		
70	Tirupattur	...	18,299	1	1,355	362	1,717	1,677	671	444	187	38	669	...		
71	Tiruppur	...	18,059	2†	8,403	1,303	4,802	2,401	904	251	495	47	763	...		
72	Tiruvárur	...	20,371	1	1,477	267	734	724	472	368	74	40	472	...		
73	Tiruvannamalai	...	27,769	1	1,249	593	1,842	1,842	801	480	311	495	857	...		
74	Tuticorin	...	60,397	6	12,271	10,931	23,202	3,867	2,929	1,280	657	67	1,994	...		
75	Udamalpet	...	12,131	1	434	274	708	708	331	219	146	14	379	...		
76	Vaniyambadi	...	22,946	1	440	368	808	808	755	534	221	...	755	...		
77	Vellore	...	57,205	2	2,170	1,836	4,006	2,093	2,938	1,459	535	53	2,064	...		
78	Villupuram	...	20,127	1	751	535	1,286	1,286	701	457	225	16	683	...		

Statement No. I showing the particulars of Vaccination in the Madras Presidency for the official year 1932-33—con

Number.	Municipalities.	Re-vaccination.		Percentage of successful cases in which the results were known.		Persons successfully vaccinated per 1,000 of population.		Percentage of cases unknown to total cases.		Average annual number of persons successfully vaccinated during previous 5 years.		Average number of deaths from smallpox during previous 5 years.	
		Total number of operations.	Successful.	Unknown.	Primary vaccination.	Re-vaccination.	(20)	(21)	(22)	Number.	(24)	Number.	(26)
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
61	Srirangam	1,230	767	29	99.0	63.9	60.4	0.3	2.1	1,075	43.6	1	0.1
62	Srivillipattur	515	138	83	98.9	31.9	32.4	0.1	16.1	1,230	38.0	1	0.1
63	Tadpatri	65	6	17	97.5	12.2	37.4	0.6	25.8	40	26.8	13	1.0
64	Tanjore	4,763	1,343	774	99.9	33.8	45.6	1.0	16.3	2,560	38.4	29	0.4
65	Tellicherry	931	277	5	100.0	28.1	41.6	...	0.5	1,043	31.4	42	0.7
66	Tirunelveli	495	285	33	99.2	62.1	41.4	0.3	7.3	777	22.4	1	0.1
67	Tirunelveli	3,488	1,345	186	99.8	40.7	75.4	2.6	5.3	2,755	48.3	20	0.3
68	Trichinopoly	17,592	6,976	1,012	99.8	42.1	89.0	0.4	5.8	6,180	43.3	22	0.2
69	Tirupati	6,100	1,643	1,603	100.0	36.5	112.4	...	26.3	505	31.1	6	0.3
70	Tirupattur	1,006	316	...	91.7	31.4	53.8	...	...	725	30.6	8	0.4
71	Tiruppur	3,898	401	972	97.7	13.8	68.4	10.2	24.9	674	37.3	4	0.4
72	Tiruvannamalai	292	131	28	100.0	77.4	32.4	...	10.7	727	33.7	3	0.1
73	Tiruvannamalai	985	262	...	99.5	29.3	40.4	...	...	1,884	35.4	15	0.5
74	Tuticorin	21,183	5,442	2,276	98.3	28.8	123.4	0.1	10.7	2,937	38.7	8	0.1
75	Udumalpet	327	69	22	98.5	22.6	36.4	...	6.7	453	37.2	1	0.1
76	Vaniyambadi	53	34	...	100.0	64.2	34.4	...	...	687	32.9	6	0.3
77	Vellore	1,923	579	143	99.7	82.6	43.4	1.7	7.7	2,210	28.8	33	0.6
78	Villupuram	582	144	...	99.6	24.6	41.4	...	...	670	33.3	13	0.6

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79	Virudhunagar	1,013	224	101	99.3	24.5	38.1	3.6	9.9	1,359	41.1	23	0.7
80	Vizagapatam	3,019	530	210	98.7	18.9	39.0	1.0	7.0	1,443	26.1	20	0.3
81	Vizianagaram	1,246	222	401	99.8	23.1	31.0	12.3	31.2	1,594	35.4	13	0.3
82	Walajpet	202	187	2	99.8	67.8	53.5	...	0.7	445	40.4	2	0.2
Total of Municipalities		323,823	97,002	47,650	99.5	34.4	74.3	1.0	1.4	159,353	48.9	1,149	0.4
Military Cantonments—													
1	Bangalore	1,515	1,092	...	85.9	70.7	...	3.4	2.0	...	...	...	...
2	Secunderabad	5,159	1,387	102	97.6	31.4	...	...	...	...	...	...	...
Total of Cantonments		6,704	2,679	102	98.4	40.8	...	3.0	1.5	...	...	...	...
Total of cases vaccinated by Medical Subordinates.		2,175	4,513	129	57.7	43.9	...	2.1	1.4	...	...	...	...
Total of cases vaccinated by Dispensary staff		752	509	...	99.3	67.7	...	...	...	...	...	...	...
Total of cases performed under Railway administration		7,940	3,302	984	97.1	47.5	...	2.7	12.4	...	...	...	...
Total of districts		998,154	344,980	129,592	98.5	39.7	35.6	7.3	13.0	1,333,646	31.7	6,238	0.1
Grand Total		1,352,553	432,899	178,457	98.6	38.6	38.7	6.6	13.2	1,453,991	32.8	7,387	0.2

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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 child-ron successfully vaccinated.		Ratio of successful vaccination per 1,000 of population.	Total cost of department.		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 five years.		RS.	A. P.	RS.	A. P.
By Special staff ...	1,358,214	1,327,160	1,397,498	1,327,987	98.6	38.4	831	3,231	700,562	510,805	38.7	6,70,656	4 9	0 8	3
By Dispensary staff.	745	752	745	752	99.3	67.7	...	...	97	111	...	...	...	...	...
By Military Cantonments ...	5,408	6,704	5,473	6,704	96.4	10.8	8	1,514	3,522	1,169	...	6,211	6 8	0 10	8
By other agencies (Medical Subordinates and Railways)	2,999	17,115	3,001	17,115	94.6	48.9	...	...	781	1,571	...	...	...	...	...
Total ...	1,367,868	1,351,731	1,406,717	1,352,558	99.6	38.7	839	3,215	704,950	518,047	38.7	6,76,167	11 6	0 0	2

STATEMENT No. II SHOWING THE COST OF THE DEPARTMENT IN THE MADRAS PRESIDENCY FOR THE OFFICIAL YEAR 1932-33.

Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33.

Expenditure.											
Number.	Districts.	Health Inspectors.		Vaccinators.				Peons, etc.		Total pay of establishment.	Travelling allowance.
		Number.	Pay.	First class.	Second class.	Probationers.	Pay.	Number.			
									(3)		
1	Chanjām—Government	3	1,121 0 0	6	5	4	4,300 1 0	3	196 10 0	5,697 11 0	2,439 3 11
2	Godāvāri. { Government Local fund	1 3	582 2 0 1,190 15 8	1 2	1 9	...	1,094 8 0 4,745 12 4	1 3	63 4 4 204 8 8	1,729 14 4 6,141 4 8	488 1 8 2,114 13 4
	Total of district	4	1,773 1 8	3	10	...	5,840 4 4	4	257 13 0	7,871 3 0	2,602 15 0
3	Vizagu- { Government patam. { Local fund	3 4	1,242 0 0 1,728 5 0	4 3	11 12	...	8,184 5 0 7,805 15 0	3 4	162 4 4 221 0 0	9,548 9 4 8,753 4 0	2,519 8 4 2,809 12 10
	Total of district	7	2,970 5 0	7	23	1	15,930 4 0	7	380 4 4	19,346 13 4	5,320 5 2
	Total of Government	7	2,945 2 0	11	15	4	12,538 14 0	7	402 2 8	16,985 2 8	5,445 13 11
	Total of Local fund	7	2,019 4 8	5	21	1	12,551 11 4	7	428 6 8	15,989 8 8	4,924 10 2
	Grand total of Agency districts.	14	5,864 0 8	16	36	5	26,130 9 4	14	830 11 4	32,855 11 4	10,371 8 1

4	Anantapur	11	3,287 13 4	4	8	17	9,520 2 4	4	11	13,408 12 0	4,547 9 7
5	Arcoot, North	11	2,917 15 4	4	9	14	16,122 12 4	4	11	19,648 1 0	6,517 14 0
6	Arcoot, South	12	3,931 15 4	4	11	14	12,355 3 2	12	12	16,955 6 6	5,188 13 10
7	Bellary	10	3,541 15 0	4	4	11	7,083 14 3	10	8	11,184 4 11	3,741 9 4
8	Chingleput	8	3,588 9 4	4	4	11	7,840 11 0	8	8	11,682 13 4	3,672 0 8
9	Chittoor	10	3,137 2 8	5	5	11	9,324 12 0	10	4	13,505 15 0	4,314 7 4
10	Coimbatore	12	4,107 6 4	4	11	18	14,513 1 7	12	4	19,278 9 3	6,127 10 10
11	Convery-Mettur Project	...	...	...	...	...	...	...	...	...	...
12	Cuddapah	9	2,863 15 0	3	12	...	8,274 6 8	9	3	11,571 7 8	3,970 5 8
13	Ganjām	13	4,401 4 10	4	3	39	15,831 12 10	13	2	20,977 4 2	7,070 8 0
14	Godāvari, East	9	3,631 1 4	4	6	11	8,140 2 0	9	3	11,707 0 8	3,875 8 2
15	Godāvari, West	7	2,320 10 4	4	7	7	8,019 6 0	7	4	10,700 8 8	3,114 13 8
16	Guntur	10	3,113 2 0	4	7	20	10,081 4 10	10	5	14,354 11 10	5,163 3 0
17	Kistna	10	3,166 11 4	5	8	...	8,052 6 5	10	4	11,704 13 1	3,443 9 7
18	Kurnool	10	3,017 7 4	4	4	13	6,612 2 9	10	1	10,138 11 1	3,750 6 11
19	Madura	11	3,63 8 8	8	10	14	13,222 15 4	11	0	18,084 2 0	5,363 6 0
20	Malabar	16	6,252 5 8	8	6	29	16,406 1 7	16	0	23,617 6 7	8,779 0 8
21	Nellore	13	4,372 4 8	6	6	18	11,553 15 2	13	8	16,631 14 6	5,124 7 11
22	Nilgiris, the	3	1,158 9 4	4	3	...	3,651 5 0	3	0	4,992 15 0	1,758 12 4
23	Ramnad	9	3,225 6 2	2	9	14	13,484 9 0	9	8	17,174 11 10	5,396 8 4
24	Salem	12	4,053 5 4	4	14	21	15,083 6 0	12	4	19,802 6 8	6,892 5 4
25	South Kanara	8	2,872 15 4	4	3	16	8,791 1 2	8	8	12,104 10 2	4,232 2 8
26	Tanjore	15	5,920 8 4	4	6	22	12,601 2 1	15	1	19,320 10 1	6,104 10 0
27	Tinnevely	10	3,333 5 0	8	12	...	9,507 5 0	10	8	13,432 12 8	4,446 9 0
28	Trichinopoly	10	4,084 1 8	6	11	...	9,467 3 0	10	8	14,687 13 4	4,237 8 8
29	Vizagapatam	15	5,251 12 0	4	11	25	12,464 5 11	15	4	18,531 2 3	6,950 9 2
30	Total	278	97,432 10 4	158	423	17	296,247 8 9	278	16	4,08,977 15 7	1,33,457 0 0

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Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33—cont.

Number.	Districts.	Expenditure—cont.			Paid from			Total.	Number of all successful primary vaccination and re-vaccination.	Average cost of each successful case.
		Contingencies.	Total cost.	Provincial funds.	Local funds.					
		(13)	(14)	(15)	(16)	(17)	(18)	(19)		
		RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.		
1	Ganjām—Government	183 12 10	8,290 12 9	8,290 11 9	...	8,290 11 9	13,204	0 10 1		
2	Golāvari { Government Local fund	63 3 2 330 4 7	2,281 3 2 8,586 6 7	2,281 3 2 5,583 10 9	... 3,062 11 10	2,281 3 2 8,586 6 7	1,352 9,586	1 11 0 0 14 4		
	Total of district	393 7 9	10,567 9 9	7,861 13 11	3,062 11 10	10,937 9 9	10,938	0 15 11		
3	Vizagapa- tam. { Government Local fund	439 13 7 542 0 8	12,547 15 3 13,150 1 6	12,547 15 3 2,729 2 7	... 10,420 14 11	12,547 15 3 13,150 1 6	15,102 25,765	0 13 3 0 8 2		
	Total of district	1,021 14 3	25,898 0 9	15,277 1 10	10,420 14 11	25,686 0 9	40,867	0 10 0		
	Total of Government	686 13 7	23,119 14 2	23,119 14 2	...	23,119 14 2	29,658	0 12 6		
	Total of Local fund	912 5 3	21,736 8 1	8,312 13 4	13,223 10 9	21,736 8 1	35,351	0 9 10		
	Grand total of Agency districts.	1,599 2 10	44,856 6 3	31,432 11 6	13,423 10 9	44,856 2 3	65,009	0 11 0		

4	Anantapur	1,378 10 7	19,335 0 2	5,452 2 5	13,882 13 9	19,335	0 2	24,222	0 9 4	
5	Arcoot, North	1,309 13 6	27,475 14 6	6,120 13 6	21,355 1 0	27,475	14 6	85,960	0 5 1	
6	Arcoot, South	1,789 14 6	23,954 2 10	6,492 8 8	17,461 10 2	23,954	2 10	86,438	0 4 5	
7	Bellary	1,034 2 9	16,010 1 0	5,536 13 3	10,473 3 9	16,010	1 0	29,455	0 8 8	
8	Chungateput	950 5 10	16,208 3 10	5,301 0 11	10,907 2 11	16,208	3 10	51,135	0 4 11	
9	Chittoor	897 9 7	18,717 15 11	5,204 12 4	13,513 3 8	18,717	15 11	47,633	0 6 3	
10	Cimbatore	1,047 9 4	26,453 13 5	6,537 13 4	19,926 0 1	26,453	13 5	83,398	0 5 1	
11	Cauvery-Mettur Project	33 14 0	1,126 8 0	1,126 8 0	...	1,126	8 0	4,834	0 3 9	
12	Cuddapah	1,187 13 1	15,729 10 5	4,693 15 5	11,036 11 0	15,729	10 5	27,023	0 9 4	
13	Ganjām	1,054 1 3	29,701 13 5	7,033 5 7	22,668 7 10	29,701	13 5	71,632	0 6 4	
14	Golāvari, East	645 6 10	15,927 15 8	4,844 11 4	11,083 4 4	15,927	15 8	46,132	0 5 6	
15	Golāvari, West	672 1 8	14,487 8 0	3,723 4 0	10,765 4 0	14,487	8 0	36,217	0 6 5	
16	Guntur	1,265 4 7	20,784 3 5	5,314 12 10	15,469 6 7	20,784	3 5	61,324	0 5 5	
17	Kistna	781 2 10	15,629 9 6	5,182 7 10	10,447 1 8	15,629	9 6	42,945	0 5 11	
18	Kurnool	933 4 4	14,832 6 4	5,141 6 0	9,741 0 4	14,832	6 4	32,694	0 7 3	
19	Madura	987 0 1	24,384 8 1	5,302 13 9	18,481 10 4	24,384	8 1	72,371	0 5 5	
20	Malabar	1,770 11 7	34,167 2 10	10,211 12 1	23,955 6 9	34,167	2 10	1,26,012	0 4 4	
21	Nellore	1,051 6 10	22,807 13 3	7,032 5 10	15,775 7 5	22,807	13 3	51,366	0 7 1	
22	Nilgiris, the	383 8 3	7,135 3 7	1,978 8 7	5,156 11 0	7,135	3 7	8,027	0 11 2	
23	Ramanad	880 8 6	23,451 12 8	5,155 7 0	18,296 5 8	23,451	12 8	58,232	0 6 5	
24	Salem	1,729 2 9	28,423 14 9	6,263 0 8	22,160 14 1	28,423	14 9	66,755	0 6 10	
25	South Kanara	1,111 12 5	17,438 9 3	4,816 7 7	12,622 1 8	17,438	9 3	52,933	0 5 3	
26	Tanjore	1,567 12 3	26,993 0 1	8,881 6 8	18,111 9 5	26,993	0 1	60,382	0 7 2	
27	Tinnevely	775 12 3	18,605 1 11	5,144 14 11	13,510 3 0	18,605	1 11	63,936	0 4 3	
28	Tichinopoly	886 4 10	19,750 10 10	6,148 12 10	13,601 14 0	19,750	10 10	54,480	0 5 10	
29	Vizagapatam	653 3 2	26,137 14 7	8,085 2 0	18,052 12 7	26,137	14 7	68,694	0 6 1	
	Total	28,401 10 2	5,70,927 0 6	1,78,791 14 9	3,92,135 1 9	5,70,927	0 6	15,00,370	0 6 1	

Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33.

Expenditure.														
Number.	Municipalities.	Sanitary In- spectors on vaccination duty.					Vaccinators.			Peons, etc.		Total pay of establi- ment.	Travelling allowance.	Con- tin- gencies.
		Number.	Pay.	First class.	Second class.	Probationers.	Pay.	Number.	Pay.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
1	Adoni ...	...	RS. A. P.	1	...	...	875 0 0	1	167 15 11	1,142 15 11	60 0 0	RS. A. P.	51 8 8	
2	Anakapalle ...	...	...	...	...	...	570 0 0	1	120 0 0	690 0 0	...	...	19 0 0	
3	Anantapur ...	...	...	...	...	...	...	...	...	...	...	...	...	
4	Bellary ...	...	...	...	...	...	1,172 9 0	1	90 0 0	1,262 4 0	98 9 0	...	84 1 0	
5	Berhampur ...	...	...	...	...	...	308 0 0	...	...	408 0 0	...	...	30 0 0	
6	Bezavada...	...	...	...	...	...	889 5 7	1	145 1 9	1,034 7 4	...	...	17 10 0	
7	Bimlitalam ...	...	...	...	...	...	441 8 0	...	...	441 8 0	...	...	45 10 9	
8	Bodinayakanur ...	...	...	...	...	...	407 7 0	...	...	407 7 0	...	...	20 14 0	
9	Calicut ...	...	...	...	...	...	1,278 9 0	...	...	1,278 9 0	...	...	73 12 0	
10	Cannanore ...	...	...	...	...	...	773 12 0	...	...	773 12 0	47 0 0	...	119 8 0	
11	Chicacole ...	...	...	...	...	...	635 0 0	...	...	635 0 0	...	...	76 12 0	
12	Chidambaram ...	...	...	...	...	...	650 2 0	...	...	650 2 0	...	...	28 5 6	
13	Chingleput ...	...	...	...	...	...	420 11 0	...	...	420 11 0	...	...	8 12 6	
14	Chirala ...	...	...	...	...	...	385 4 0	...	...	395 4 0	52 8 0	...	18 4 3	
15	Chittoor ...	...	...	...	...	...	510 0 0	...	...	510 0 0	56 4 0	...	88 15 3	
16	Cocanada ...	...	...	...	...	...	958 2 0	...	...	958 2 0	...	...	5 5 0	
17	Cochin ...	...	...	...	...	...	785 12 0	1	132 0 0	917 12 0	...	...	254 6 0	
18	Coimbatore ...	...	...	...	...	...	1,687 7 0	...	...	1,687 7 0	...	...	21 0 0	
19	Conjeevaram ...	...	...	...	...	...	732 0 0	...	...	732 0 0	...	...	53 6 0	
20	Coonoor ...	...	...	...	...	...	571 0 0	...	...	571 0 0	...	...	68 10 0	
21	Cuddalore ...	...	...	...	...	...	1,143 1 0	...	...	1,143 1 0	...	...	44 12 0	
22	Cuddapah ...	...	...	...	...	...	597 1 0	...	...	597 1 0	...	...	...	
23	Dharsapuram ...	...	...	...	...	...	518 1 0	...	...	518 1 0	48 1 0	...	...	

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24	Dindigul ..	..	..	..	..	..	787 6 0	1	168 0 0	..	59 10 0
25	Ellore ..	..	..	..	..	..	720 0 0	2	211 0 0	..	9 10 6
26	Erode ..	..	..	..	..	..	841 6 0	..	841 6 0	60 0 0	77 13 6
27	Gadivattam ..	..	..	..	..	..	446 0 0	..	446 0 0	..	18 12 9
28	Guntur ..	..	..	..	..	..	841 11 1	1	115 4 0	..	124 2 0
29	Hindupur ..	..	..	..	..	..	434 14 0	..	434 14 0	..	30 11 0
30	Hospet ..	..	..	..	..	..	420 0 0	..	420 0 0	..	4 8 0
31	Karakudi ..	..	..	..	..	..	443 0 0	..	443 0 0	..	67 0 0
32	Karar ..	..	..	..	..	..	575 12 0	..	575 12 0	..	11 9 3
33	Kodaikanal ..	..	..	..	..	..	303 8 0	..	303 8 0	..	420 10 6
34	Kumbakonam ..	..	..	..	..	..	1,416 9 0	..	1,416 9 0	..	47 4 0
35	Kurnool ..	..	..	..	..	..	899 10 0	..	899 10 0	..	53 3 0
36	Madras ..	..	..	..	..	..	42,358 15 8	27	5,857 15 10	..	3,533 4 3
37	Madura ..	..	..	..	..	..	4,849 9 0	..	4,849 9 0	..	630 1 9
38	Mangalore ..	..	..	..	..	..	934 0 0	1	215 8 0	..	28 4 9
39	Mannargudi ..	..	..	..	..	..	324 3 0	..	324 3 0	..	35 13 0
40	Masulipatam ..	..	..	..	..	..	1,183 8 0	..	1,183 8 0	..	197 5 0
41	Māyavaram ..	..	..	..	..	..	509 12 0	..	509 12 0	..	15 14 6
42	Nandyal ..	..	..	..	..	..	467 0 0	..	467 0 0	..	40 14 0
43	Narasaraopet ..	..	..	..	..	..	417 0 0	..	417 0 0	..	31 5 0
44	Negapatam ..	..	..	..	..	..	802 8 0	..	802 8 0	..	188 2 0
45	Nellore ..	..	..	..	..	..	1,008 8 0	2	322 13 0	107 0 0	362 7 0
46	Ongole ..	..	..	..	..	..	353 11 0	..	352 11 0	..	19 2 0
47	Ootacamund ..	..	..	..	..	..	660 8 6	..	660 8 6	58 10 6	105 4 6
48	Palacole ..	..	..	..	..	..	420 0 0	..	420 0 0	..	4 0 0
49	Palamcottah ..	..	..	..	..	..	873 0 0	2	277 13 0	..	24 4 0
50	Palghat ..	..	..	..	..	..	740 4 0	..	740 4 0	..	164 2 0
51	Palni ..	..	..	..	..	..	300 0 0	..	300 0 0	..	61 5 6
52	Parlaktinmedi ..	..	..	..	..	..	447 0 0	..	447 0 0	..	54 2 0
53	Peddappatram ..	..	..	..	..	..	306 0 0	..	306 0 0	..	4 15 6
54	Pettiyakulam ..	..	..	..	..	..	335 11 0	..	335 11 0	..	48 2 9
55	Pollachi ..	..	..	..	..	..	543 1 0	..	543 1 0	..	35 10 0
56	Proddatur ..	..	..	..	..	..	383 0 0	..	383 0 0	..	262 6 2
57	Rajahmundry ..	..	..	..	..	..	1,316 8 3	1	96 0 0	60 10 8	44 11 6
58	Saidapet ..	..	..	..	..	..	404 15 0	..	404 15 0	..	1 14 0

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* One temporary vaccinator for one month. † One temporary vaccinator for three months. ‡ One temporary vaccinator for ten months.
 † One temporary vaccinator for about six months. ‡ One temporary vaccinator for two months. ‡ Light Medical Registrar-vaccinators.
 †† One temporary vaccinator for six months. †† One temporary, period not known.

Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33—cont.

Number.	Municipalities.	Expenditure— cont.	Paid from					Total.	Number of all successful primary vaccination and re-vaccination.	Average cost of each successful case.
			(14)	(15)	(16)	(17)	(18)			
		Rs. A. P.					Rs. A. P.	Rs. A. P.		Rs. A. P.
1	Adoni ..	1,251 8 8	...	...	...	...	1,251 8 8	1,614	0 12 5	
2	Anakapalle ..	709 0 0	...	...	...	...	709 0 0	887	0 12 5	
3	Anantapur ..	577 0 0	...	...	...	...	577 0 0	630	0 14 6	
4	Bellary ..	1,445 3 0	...	...	...	...	1,445 3 0	2,376	0 9 9	
5	Berhampur ..	438 0 0	...	...	...	...	438 0 0	1,580	0 4 5	
6	Bezwada ..	1,052 1 4	...	...	...	...	1,052 1 4	2,204	0 7 7	
7	Bimlipatam ..	487 2 9	...	...	...	...	487 2 9	359	1 5 8	
8	Boonayyakanur ..	447 5 0	...	...	...	...	447 5 0	1,176	0 6 1	
9	Chelicut ..	1,352 5 0	...	...	...	...	1,352 5 0	4,313	0 5 0	
10	Cannanore ..	940 4 0	...	...	...	...	940 4 0	925	1 0 3	
11	Chicacole ..	771 12 0	...	...	...	...	771 12 0	617	1 4 0	
12	Chidambaram ..	678 7 6	...	...	...	...	678 7 6	715	0 15 2	
13	Chingleput ..	429 7 6	...	...	...	...	429 7 6	1,935	0 6 8	
14	Chirala ..	436 0 3	...	...	...	...	436 0 3	1,739	0 4 0	
15	Chittoor ..	635 3 3	...	...	...	...	635 3 3	671	0 15 7	
16	Cocanada ..	1,050 0 0	...	...	...	...	1,050 0 0	2,600	0 6 5	
17	Cochin ..	923 1 0	...	...	...	...	923 1 0	1,346	0 10 11	
18	Coimbatore ..	1,941 13 0	...	...	...	...	1,941 13 0	3,553	0 8 9	
19	Conjeevaram ..	753 0 0	...	...	...	...	753 0 0	3,251	0 3 3	
20	Coonoor ..	630 6 0	...	...	...	...	630 6 0	1,058	0 9 6	
21	Cuddalore ..	1,211 11 0	...	...	...	...	1,211 11 0	3,589	0 5 5	
22	Cuddapah ..	641 13 0	...	...	...	...	641 13 0	1,131	0 9 1	
23	Dharmapuri ..	566 2 0	...	...	...	...	566 2 0	775	0 11 8	

24	Dindigul ..	1,033 0 0	...	...	...	1,036 0 0	2,521	0 6 7
25	Ellore ..	940 10 6	...	...	...	940 10 6	3,240	0 4 8
26	Erode ..	919 3 6	...	...	...	919 3 6	1,112	0 13 3
27	Gandiyattam ..	522 12 9	...	...	...	522 12 9	664	0 12 7
28	Guntur ..	1,031 1 10	...	...	...	1,031 1 10	2,703	0 6 5
29	Hindupur ..	445 9 0	...	...	...	445 9 0	783	0 9 1
30	Hospet ..	424 8 0	...	...	...	424 8 0	1,328	0 5 1
31	Karaikudi ..	510 0 0	...	...	...	510 0 0	753	0 10 10
32	Karur ..	587 5 3	...	...	...	587 5 3	1,523	0 6 3
33	Kodakanal ..	724 2 6	...	...	...	724 2 6	3,051	0 3 10
34	Kumbakonam ..	1,463 13 0	...	...	...	1,463 13 0	2,685	0 8 9
35	Kurnool ..	952 13 0	...	...	...	952 13 0	1,838	0 8 4
36	Madras ..	51,750 3 9	...	...	...	51,750 3 9	27,014 12 0	0 8 7
37	Madura ..	5,678 10 0	...	...	...	5,678 10 0	20,512	0 4 5
38	Manalore ..	1,175 12 9	...	...	...	1,175 12 9	5,288	0 3 7
39	Marangudi ..	360 0 0	...	...	...	360 0 0	813	0 7 1
40	Masulipatam ..	1,380 13 0	...	...	...	1,380 13 0	2,222	0 9 11
41	Mavayaram ..	525 10 6	...	...	...	525 10 6	1,202	0 7 0
42	Muddyal ..	507 14 0	...	...	...	507 14 0	820	0 9 11
43	Narasimhapet ..	448 5 0	...	...	...	448 5 0	651	0 11 0
44	Negapatam ..	910 10 0	...	...	...	910 10 0	1,897	0 7 11
45	Nellore ..	1,800 12 0	...	...	...	1,800 12 0	4,341	0 6 10
46	Onjole ..	371 13 0	...	...	...	371 13 0	1,009	0 5 11
47	Ottamund ..	822 7 6	...	...	...	822 7 6	1,102	0 12 0
48	Palacole ..	424 0 0	...	...	...	424 0 0	423	1 0 0
49	Palamcottah ..	1,175 1 0	...	...	...	1,175 1 0	3,819	0 5 8
50	Palghat ..	913 6 0	...	...	...	913 6 0	3,788	0 3 10
51	Palni ..	361 5 6	...	...	...	361 5 6	729	0 7 11
52	Parakimedi ..	501 2 0	...	...	...	501 2 0	2,001	0 4 0
53	Peddapuram ..	310 15 6	...	...	...	310 15 6	711	0 7 0
54	Perrakulam ..	384 13 9	...	...	...	384 13 9	2,842	0 2 2
55	Pollachi ..	578 11 0	...	...	...	578 11 0	643	0 14 5
56	Proddatur ..	976 0 10	...	...	...	976 0 10	840	0 12 10
57	Rajahmundry ..	1,457 3 9	...	...	...	1,457 3 9	2,491	0 9 4
58	Saidapet ..	406 13 0	...	...	...	406 13 0	1,314	0 3 5

* The cost of vaccination and vaccination during 1932-33 was Rs. 51,750-3-9 but the cost of vaccination alone amounts to Rs. 27,014-12-0.
 † This includes 574 cases vaccinated in the Penitentiary.

Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33—cont.

Expenditure.												
Municipalities.		Sanitary Inspect- ors on vaccina- tion duty.		Vaccinators.			Peons, etc.		Total pay of establish- ment.	Travelling allowance.	Contin- gencies.	
		Number.	Pay.	First class	Second class.	Probationers.	Pay.	Number.				Pay.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
59	Salem ...	...	...	...	...	...	RS. A. P.	...	...	RS. A. P.	...	RS. A. P.
60	Sivakasi ...	...	...	...	...	...	1,399 7 1 72 4 0	...	...	1,399 7 1 72 4 0	...	275 1 3 1 0 0
61	Srirangam ...	...	...	...	...	...	456 0 0	...	...	456 0 0	...	5 12 0
62	Srivilliputhur ...	...	...	...	...	...	374 5 0	...	...	374 5 0	...	100 12 0
63	Tadipatri ...	...	...	...	...	...	420 0 0	...	...	420 0 0	...	14 4 6
64	Tanjore ...	...	...	...	...	...	1,463 15 0	...	...	1,463 15 0	...	368 3 10
65	Tellicherry ...	...	...	...	...	...	591 4 0	...	...	591 4 0	...	80 12 0
66	Tenali ...	...	...	...	...	...	834 4 0	...	...	834 4 0	...	51 10 8
67	Tinnevely ...	...	...	...	...	...	844 11 0	...	...	844 11 0	...	94 15 0
68	Tiruchinopoly ...	...	...	...	...	...	2,403 10 2	...	...	2,403 10 2	...	161 7 9
69	Tirupati ...	...	...	...	...	...	461 15 0	...	...	461 15 0	...	108 3 10
70	Tirupattur ...	...	...	...	...	...	505 8 0	...	...	505 8 0	...	53 2 0
71	Tiruppur ...	...	...	...	...	...	553 12 0	...	...	553 12 0	...	53 7 10
72	Tiruvannamalai ...	...	...	...	...	...	408 0 0	...	...	408 0 0	...	37 4 0
73	Tuticorin ...	...	...	...	...	...	470 5 0	...	...	470 5 0	...	53 14 6
74	Udumalpet ...	...	...	...	...	...	1,432 1 2	...	...	1,432 1 2	...	338 15 6
75	Vaniyambadi ...	...	...	...	...	...	369 8 0	...	...	369 8 0	...	8 5 0
76	Vaniyambadi ...	...	...	...	...	...	421 15 0	...	...	421 15 0	...	45 9 10
77	Vellore ...	...	...	...	...	...	...	...	...	...	...	44 11 3
78	Villupuram ...	...	...	...	...	...	...	...	...	...	...	17 4 3
79	Virudhunagar ...	...	...	...	...	...	...	...	...	...	...	71 10 9
80	Vizagapatam ...	...	...	...	...	...	...	...	...	...	...	317 10 6
81	Vizianagaram ...	...	...	...	...	...	...	...	...	...	...	33 7 0
82	Walajapet ...	...	...	...	...	...	...	...	...	...	...	85 4 6
Total of Municipalities		1	380 0 0	42	157	4	1,03,195 12 1	43	9,005 10 4	1,12,531 6 5	966 11 2	10,616 10 5
Military Cantonments—		...	...	...	...	...	...	...	...	...	...	...
1	Bangalore ...	...	...	...	...	...	...	...	...	...	...	...
2	Secunderabad ...	...	...	...	...	...	...	...	...	...	...	...
Total of Cantonments		1	843 5 0	2	6	...	2,645 10 0	...	...	4,207 4 0	420 0 0	584 2 9
Total of districts		278	97,432 10 4	188	423	17	2,40,947 8 0	272	15,298 1 6	4,08,977 15 7	1,33,457 6 9	28,491 10 2
Grand Total		280	98,655 15 4	232	536	21	4,02,689 9 10	324	25,021 0 10	5,25,768 10 0	1,34,944 1 11	39,692 7 4

* One for three months and eight days.
† One for two months and ten days.

‡ Two for two months each.
§ Superintendent of Vaccination.

Statement No. II showing the Cost of the Department in the Madras Presidency for the official year 1932-33—cont.

Number.	Municipalities.	Expenditure— cont.				Paid from				Total.	Number of all successful primary vaccination, re-vaccination.	Average cost of each successful case.
		Total cost.	Imperial funds.	Provincial funds.	Local funds.	Municipal funds.						
							(14)	(15)	(16)			
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
59	Salem	1,674 8 4	...	...	...	1,674 8 4	...	7,276	1,674 8 4	7,276	0 3 8	0 3 8
60	Sivakasi	73 4 0	...	...	...	73 4 0	...	589	73 4 0	589	0 1 11	0 1 11
61	Srirangam	462 12 0	...	...	...	462 12 0	...	1,486	462 12 0	1,486	0 4 11	0 4 11
62	Srivilliputtur	475 1 0	...	...	...	475 1 0	...	1,055	475 1 0	1,055	0 7 2	0 7 2
63	Tadipatri	494 4 6	...	...	...	494 4 6	...	470	494 4 6	470	1 0 10	1 0 10
64	Tanjore	1,832 2 10	...	...	...	1,832 2 10	...	3,051	1,832 2 10	3,051	0 9 7	0 9 7
65	Tellicherry	900 0 0	...	...	...	900 0 0	...	1,256	900 0 0	1,256	0 11 5	0 11 5
66	Tenali	612 9 8	...	...	...	612 9 8	...	1,424	612 9 8	1,424	0 6 11	0 6 11
67	Tinnevely	1,108 10 0	...	...	...	1,108 10 0	...	4,296	1,108 10 0	4,296	0 4 4	0 4 4
68	Trichinopoly	2,945 1 11	...	...	...	2,945 1 11	...	12,289	2,945 1 11	12,289	0 3 10	0 3 10
69	Tirupati	634 2 10	...	...	...	634 2 10	...	2,157	634 2 10	2,157	0 4 8	0 4 8
70	Tirupattur	558 10 0	...	...	...	558 10 0	...	985	558 10 0	985	0 9 1	0 9 1
71	Tiruppur	617 3 10	...	...	...	617 3 10	...	1,197	617 3 10	1,197	0 8 3	0 8 3
72	Tiruvárur	593 4 0	...	...	...	593 4 0	...	653	593 4 0	653	0 14 7	0 14 7
73	Tiruvannamalai	524 3 6	...	...	...	524 3 6	...	1,119	524 3 6	1,119	0 7 5	0 7 5
74	Tuticorin	2,034 8 6	...	...	...	2,034 8 6	...	7,436	2,034 8 6	7,436	0 4 4	0 4 4
75	Udumalpet	377 13 0	...	...	...	377 13 0	...	443	377 13 0	443	0 13 6	0 13 6
76	Vaniyambadi	467 8 10	...	...	...	467 8 10	...	789	467 8 10	789	0 9 6	0 9 6
77	Vellore	893 5 3	...	...	...	893 5 3	...	2,633	893 5 3	2,633	0 5 3	0 5 3
78	Villupuram	638 14 3	...	...	...	638 14 3	...	842	638 14 3	842	0 12 1	0 12 1
79	Virodhavagar	547 2 2	...	...	...	547 2 2	...	1,261	547 2 2	1,261	0 6 11	0 6 11
80	Vizagapatnam	1,702 11 1	...	...	...	1,702 11 1	...	2,234	1,702 11 1	2,234	0 12 2	0 12 2
81	Vizianagaram	1,519 14 0	...	...	...	1,519 14 0	...	1,413	1,519 14 0	1,413	1 1 1	1 1 1
82	Walajpet	439 11 6	...	...	...	439 11 6	...	694	439 11 6	694	0 13 2	0 13 2
	Total of Municipalities	1,24,164 12 0	...	...	...	1,24,164 12 0	...	2,28,114	1,00,029 4 3	2,28,114	0 7 0	0 7 0
	Military Cantonments—											
1	Bangalore	900 0 0	900 0 0	...	...	900 0 0	...	1,538	900 0 0	1,538	0 9 2	0 9 2
2	Secunderabad	4,311 6 9	4,311 6 9	...	...	4,311 6 9	...	6,255	4,311 6 9	6,255	0 11 0	0 11 0
	Total of Cantonments*	5,211 6 9	5,211 6 9	...	...	5,211 6 9	...	7,793	5,211 6 9	7,793	0 10 8	0 10 8
	Total of districts	5,70,927 0 6	...	1,78,791 14 9	3,92,135 1 9	5,70,927 0 6	...	1,50,370	5,70,927 0 6	1,50,370	0 6 1	0 6 1
	Grand Total	7,00,303 3 3	5,211 6 9	1,78,791 14 9	3,92,135 1 9	1,24,164 12 0	6,76,167 11 8	1,736,277	...	1,736,277	0 6 2	0 6 2

* The average cost of each successful case was calculated on the total number of successful vaccinations performed by the Special Staff only, viz., Local Fund and Municipal Staff (vide G.O. No. 1156-L., dated 4th September 1911) and exclusive of Rs. 837-5-0 being the total amount of recoveries made for wastage of lymph.

Statement No. III showing the Number of Persons primarily vaccinated and the Number of those Persons who were successfully vaccinated in the Madras Presidency in each of the undermentioned years.

Persons primarily vaccinated in the Madras Presidency.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	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.
	1923-1924.	1924-1925.	1925-1926.	1926-1927.	1927-1928.					
Government vaccinators	20,959	16,852	21,275	19,629	24,284	22,270	30,053	26,610	33,889	30,651
Local Fund	1,270,638	1,149,187	1,238,064	1,234,452	1,248,453	1,167,748	1,240,915	1,156,949	1,281,914	1,195,591
Cantonment	5,858	5,850	4,204	4,275	5,364	5,320	6,292	6,230	5,749	5,674
Municipal	113,237	109,620	116,000	115,888	115,450	115,069	122,335	122,008	118,443	118,029
Dispensaries	148	143	2	2	...	...	749	711	129	125
Medical Subordinates	1,188	842	1,342	1,267	576	423	2,658	2,239	2,011	2,003
Railways	...	...	...	...	...	...	...	...	...	...
Total	1,412,020	1,382,494	1,440,887	1,367,313	1,394,063	1,310,850	1,403,194	1,314,747	1,442,115	1,352,082

Statement No. III showing the Number of Persons primarily vaccinated and the Number of those Persons who were successfully vaccinated in the Madras Presidency in each of the undermentioned years--cont.

Persons primarily vaccinated in the Madras Presidency--cont.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	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.
	1928-1929.	1929-1930.	1930-1931.	1931-1932.	1932-1933.					
Government vaccinators	26,893	23,313	26,588	23,854	22,809	21,481	26,459	24,574	31,160	28,118
Local Fund	1,255,427	1,164,580	1,270,244	1,165,405	1,257,794	1,162,678	1,343,224	1,225,234	1,333,161	1,127,363
Cantonment	5,977	5,877	5,966	5,690	5,346	4,950	6,172	5,465	5,473	5,114
Municipal	118,284	116,817	120,173	117,136	122,154	119,872	128,593	127,430	133,177	131,112
Dispensaries	1,054	1,027	1,857	1,842	983	930	999	988	745	740
Medical Subordinates	886	441	110	101	262	247	244	183	193	199
Railways	4,621	4,561	683	625	1,345	1,303	1,328	1,274	2,803	2,353
Total	1,412,445	1,316,616	1,425,624	1,314,603	1,411,723	1,311,491	1,508,024	1,385,151	1,406,717	1,285,209

Statement No. IV showing Particulars of Vaccination verified by

Districts.	Total number of cases vaccinated.		Total number inspected.			
			By District Medical Officers and Medical Officers including Civil Surgeons, District Health Officers, Municipal Health Officers, etc.		By Health Inspectors.	
	Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.
Agency districts ...	65,624	15,865	587	224	60,225	12,220
Anantapur ...	84,323	12,474	3,275	1,083	30,168	9,696
Arcot, North ...	71,845	70,153	10,116	5,749	60,752	55,519
Arcot, South ...	71,325	82,834	5,183	6,242	53,101	67,826
Bellary ...	32,548	16,568	5,248	4,139	25,762	10,354
Chingleput ...	39,961	57,264	4,399	5,133	31,242	39,789
Chittoor ...	38,566	37,864	2,514	5,803	34,971	27,802
Coimbatore ...	70,862	82,242	7,955	6,958	58,668	57,573
Cuddapah ...	28,021	16,576	1,859	1,137	24,245	13,138
Ganjām ...	70,248	37,671	4,290	3,058	60,110	29,685
Gōdāvari, East ...	49,638	26,278	4,849	2,254	38,914	19,374
Gōdāvari, West ...	39,055	10,257	3,884	1,892	33,672	6,999
Guntur ...	62,895	39,663	4,296	4,144	53,007	28,876
Kistna ...	35,711	35,228	4,281	2,550	29,138	25,937
Kurnool ...	38,598	11,696	3,321	802	30,427	8,765
Madras ...	29,801	124,492	16,308	588	...	...
Madura ...	68,768	108,140	10,740	31,820	49,799	55,011
Malabar ...	29,432	109,621	11,684	7,969	85,425	81,786
Nellore ...	41,679	42,284	2,160	4,997	37,662	32,185
Nilgiris, the ...	4,691	17,313	1,442	3,255	3,148	13,405
Ramanad ...	45,641	62,803	4,374	3,343	33,312	42,244
Salem ...	61,721	51,031	3,031	7,756	56,946	36,183
South Kanara ...	44,210	41,965	4,843	2,939	36,192	31,418
Tanjore ...	60,473	52,509	5,610	6,538	41,010	26,636
Tinnevely ...	64,887	82,369	7,725	23,678	48,210	44,134
Trichinopoly ...	50,839	57,223	6,904	13,345	38,509	26,281
Vizagapatam ...	75,154	22,861	5,449	2,821	62,627	15,572
Cauvery-Mettur ...	3,720	11,434	227	150	2,813	7,475
Total ...	1,899,436	1,337,914	148,237	166,365	1,082,443	783,710

Inspecting Officers in the Madras Presidency during 1932-33.

Percentage of inspection to total number vaccinated.				Percentage of case found successful to total number inspected.				Percentage of success as reported by vaccinators.	
By District Medical Officers, including Civil Surgeons, District Health Officers, Municipal Health Officers, etc.		By Health Inspectors.		By District Medical Officers, including Civil Surgeons, District Health Officers, Municipal Health Officers, etc.		By Health Inspectors.			
Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.	Primary vaccination.	Re-vaccination.
0.9	1.4	91.8	77.9	98.5	75.0	97.6	88.0	83.3	33.0
9.5	8.7	92.4	87.7	99.3	23.1	98.9	34.8	98.9	19.9
14.1	8.2	91.5	84.5	99.5	43.2	98.8	42.7	99.3	87.5
7.3	7.5	77.3	76.2	98.3	44.4	98.3	37.7	98.2	87.4
16.1	25.0	91.6	87.3	99.9	33.6	99.5	60.2	99.8	30.1
11.0	9.0	86.2	69.5	99.8	44.0	98.8	46.3	98.4	39.4
6.6	15.3	93.2	89.7	99.6	39.1	99.4	44.6	100.0	36.2
11.2	8.5	92.2	81.8	99.7	34.0	98.6	40.2	99.3	23.6
6.6	7.2	91.9	87.2	99.6	32.9	97.9	22.3	99.9	26.9
6.1	8.1	88.4	86.5	99.6	60.3	98.6	40.3	98.3	53.0
9.8	8.6	87.5	83.4	98.1	38.1	98.3	31.2	98.6	29.9
8.7	18.4	92.3	89.0	99.9	46.5	99.3	39.5	99.2	72.4
6.8	10.4	91.4	88.7	99.4	47.0	99.2	20.3	99.2	44.5
12.0	7.2	90.0	80.2	99.5	45.0	98.7	47.7	98.3	39.7
9.1	6.9	89.0	83.2	98.9	28.3	97.8	28.4	99.1	27.7
54.7	0.5	...	...	99.9	29.0	...	...	99.9	21.3
16.1	30.0	88.2	82.9	99.1	51.0	98.8	37.7	99.1	51.3
11.8	7.3	92.3	85.8	99.6	34.3	99.0	49.0	98.3	35.2
5.2	11.6	94.7	88.1	99.2	45.1	98.4	43.2	98.8	46.4
30.7	18.8	92.0	77.4	99.7	41.8	99.6	36.3	91.6	37.0
9.6	6.3	78.3	70.3	99.0	34.7	98.6	36.7	98.7	35.9
4.8	15.2	92.3	86.4	99.5	51.9	98.6	28.3	99.7	48.0
11.2	7.1	88.2	81.5	97.9	66.0	99.4	45.3	99.6	55.1
8.3	12.5	77.0	67.8	99.8	42.9	98.4	43.3	98.7	37.6
12.0	28.7	84.3	81.9	99.2	30.5	98.2	38.9	98.8	38.7
12.7	32.1	88.8	75.8	99.7	41.0	99.4	50.3	99.4	45.1
7.3	16.7	88.3	85.5	99.4	23.1	97.2	30.9	98.2	24.2
6.1	1.3	75.6	65.4	97.4	16.0	98.5	25.6	100.0	14.3
10.5	12.4	85.6	78.5	99.2	40.9	98.6	39.8	98.6	34.2

Statement No. V showing the Number of Vaccinations performed in Municipal Towns on Children under One Year of Age (G.O. M.S. No. 1524-L., dated 6th December 1909).

Municipalities.	Number of births available for vaccination during the year 1932-33.	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 1933.	Percentage of infantile vaccination to total births.	
				1931-32.	1932-33.
Adoni ...	1,479	189	882	85.2	72.1
Anakāpalle ...	820	89	449	41.0	39.1
Anantapur ...	641	66	200	68.0	60.2
Bellary ...	1,849	323	1,042	55.8	54.4
Berhampur ...	1,224	218	508	57.5	57.0
Bezwada ...	2,509	801	587	41.0	34.2
Bimlipatam ...	357	56	218	55.7	63.5
Bedinayakkanur ...	1,088	204	663	97.9	92.2
Calicut ...	3,106	380	1,395	53.8	68.2
Cannanore ...	1,072	111	440	41.3	41.0
Chicacole ...	518	99	214	55.5	71.3
Chidambaram ...	738	132	294	41.2	41.6
Chingleput ...	761	201	216	44.4	33.4
Chirala ...	687	95	258	42.3	45.3
Chittoor ...	787	101	186	33.9	30.0
Cocanada ...	1,899	272	640	38.1	58.0
Cochin ...	811	92	547	94.0	77.1
Coimbatore ...	4,021	648	1,708	44.7	42.3
Conjeevaram ...	3,020	272	2,010	60.3	67.3
Coonoor ...	508	70	277	55.2	63.3
Cuddalore ...	2,079	360	730	55.1	40.5
Cuddapah ...	1,004	148	514	45.6	51.3
Dhārāpuram ...	670	67	318	49.5	65.8
Dindigul ...	1,707	360	878	75.4	52.7
Ellore ...	1,909	461	786	75.2	72.0
Erode ...	928	121	464	63.9	66.3
Gadialattam ...	747	122	377	50.3	52.3
Guntūr ...	2,308	548	826	51.6	50.9
Hindupur ...	586	87	379	77.5	81.0
Hospet ...	922	131	652	64.8	70.9
Karnikudi ...	561	120	226	83.0	72.0
Kartūr ...	706	105	290	77.5	41.0
Kodaikānal ...	264	46	184	67.7	87.8
Kumbakonam ...	2,355	398	924	58.0	57.3
Kurnool ...	1,249	105	480	23.3	34.4
Madras ...	27,183	4,374	11,571	75.9	75.0
Madura ...	6,333	988	4,413	57.1	56.9
Mangalore ...	2,202	158	1,789	82.2	84.4
Mannārgudi ...	916	134	368	47.9	33.2
Masulipatam ...	2,207	512	871	80.3	69.6
Māyavaram ...	1,187	223	496	46.6	41.2
Nandyāl ...	867	111	430	53.3	49.6
Narasaraopet ...	524	101	153	76.0	65.0
Negapatam ...	1,652	292	907	81.7	85.0
Nellore ...	1,835	245	563	43.1	44.4
Ongole ...	816	108	321	64.6	45.5
Ootacamund ...	1,088	111	508	52.4	46.9
Palacole ...	462	99	194	60.0	42.0
Palamcottah ...	2,085	538	951	62.1	69.3
Palghat ...	1,768	340	710	41.2	38.0

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

Municipalities.	Number of births available for vaccination during the year 1932-33.	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 1933.	Percentage of infantile vaccination to total births.	
				1931-32.	1932-33.
Palni ...	662	146	381	63.4	57.5
Parlākimedi ...	646	106	380	77.4	77.6
Peddāpuram ...	501	46	252	94.2	54.8
Periyakulam ...	1,275	213	580	73.5	76.9
Pollachi ...	792	143	297	71.2	35.0
Proddatūr ...	720	100	459	67.2	64.3
Rajahmundry ...	2,178	489	957	78.4	47.1
Saidapet ...	1,116	95	445	76.3	39.9
Salem ...	3,964	581	2,396	63.3	63.9
Sivakāsi ...	490	62	271	80.8	100.0
Srirangam ...	602	131	302	91.9	88.2
Srivilliputtūr ...	1,364	234	784	67.0	59.0
Tadpatri ...	398	62	251	86.7	87.5
Tanjore ...	2,782	328	583	41.7	32.4
Tellicherry ...	849	127	513	55.8	64.4
Tenali ...	598	126	242	31.6	50.8
Tinnevely ...	2,040	526	1,089	62.4	65.5
Trichinopoly ...	4,340	715	2,362	57.2	57.3
Tirupati ...	551	105	302	100.0	61.9
Tirupattar ...	870	84	441	50.2	57.9
Tiruppur ...	475	60	222	45.7	52.3
Tiruvālūr ...	665	181	339	76.3	68.5
Tiruvannāmalai ...	1,075	143	480	46.1	44.7
Tuticorin ...	1,982	12	922	64.9	55.3
Udumalpet ...	352	54	146	50.0	41.4
Vaniyambūdi ...	686	124	370	61.5	67.4
Vellore ...	2,941	415	1,460	45.9	46.8
Villupuram ...	853	69	540	68.8	53.3
Virudhunagar ...	1,085	145	749	70.2	57.8
Vizagapatam ...	2,182	258	462	44.0	59.8
Vizianagram ...	1,622	337	640	53.8	44.6
Walajapet ...	433	49	243	41.4	56.0

Comparative Statement showing infantile Vaccination in Districts for 1931-32 and 1932-33.

Districts.	Percentage of infantile vaccination to total births registered.		Increase or decrease.	Districts.	Percentage of infantile vaccination to total births registered.		Increase or decrease.
	1931-32.	1932-33.			1931-32.	1932-33.	
1. Anantapur ...	43.0	42.4	-0.8	14. Kurnool ...	49.6	43.4	-6.2
2. Arcot, North ...	51.1	46.5	-4.6	15. Madura ...	64.2	63.8	-0.4
3. Arcot, South ...	48.1	41.6	-6.5	16. Malabar ...	51.5	41.1	-10.4
4. Bellary ...	47.9	45.1	-2.8	17. Nellore ...	42.7	34.5	-8.2
5. Chingleput ...	54.6	39.7	-14.9	18. Nilgiris, the ...	59.5	56.3	-3.2
6. Chittoor ...	52.4	43.8	-8.6	19. Ramnad ...	39.8	26.0	-13.8
7. Coimbatore ...	51.3	42.0	-9.3	20. Salem ...	43.5	33.3	-10.2
8. Cuddapah ...	50.5	41.8	-8.7	21. South Kanara ...	36.3	32.0	-4.3
9. Ganjam ...	50.1	31.8	-18.3	22. Tanjore ...	33.6	27.8	-5.8
10. Godavari, East ...	38.5	29.8	-8.7	23. Tinnevely ...	53.4	51.0	-2.4
11. Godavari, West ...	45.0	44.7	-0.3	24. Trichinopoly ...	42.6	36.3	-6.3
12. Gunthar ...	39.4	37.6	-1.8	25. Vizagapatam ...	38.5	32.4	-6.1
13. Kistna ...	41.6	31.8	-9.8				

FORTY-THIRD ANNUAL REPORT OF THE SANITARY ENGINEER TO GOVERNMENT FOR THE YEAR 1932.

The year under report witnessed the completion of three new water-supply schemes at Tuticorin, Palni and Cuddalore O. T. increasing the number of protected water-supply systems in municipal areas in the Presidency to 37. The number of such schemes in rural areas remained the same as in last year—at 2.

2. No scientific drainage scheme came into operation during the year though fair progress was reported on the drainage works at Bezwada and Salem.

3. The following water-supply and drainage schemes were under execution by Public Works Department during the year:—

	Estimated cost.	Expenditure to and of December 1932.
	rs.	rs.
Coimbatore water-supply ...	43,74,808	42,06,958
Tiruvannamalai water-supply ...	3,47,900	2,32,838
Saidapet water-supply ...	3,05,000	1,25,421
Proddatur water-supply ...	2,32,500	1,75,036
Tadpatri water-supply ...	95,000	59,370
Rajahmundry water-supply ...	10,16,000	3,02,505
Tiruppur water-supply full power test.	64,300	25,434
Bezwada water-supply improvements.	71,000	84,425
Ellore do. do.	1,56,800	1,49,128
Chodavaram water-supply (work in abeyance) ...	46,900	11,130
Salem drainage ...	2,19,500	1,80,942
Bezwada drainage ...	6,60,776	1,80,122

The work done on these schemes are briefly noticed below:—

Coimbatore Water-supply.—Dam work and excavations and foundations for approach channel were in progress.

Tiruvannamalai Water-supply.—Quarters for engine drivers, infiltration gallery, suction well and forty fountains were completed.

Saidapet Water-supply.—Full power test was carried out and report submitted to Chief Engineer. Orders of the Chief Engineer to proceed with the gallery work were received in December 1932.

Proddatur Water-supply.—The work is practically completed.

Tadpatri Water-supply.—Distribution system, infiltration well and masonry of engine house and reservoir have been constructed.

Rajahmundry Water-supply.—Distribution system was in progress.

Tiruppur Water-supply.—In view of the high sub-soil water table it was decided not to proceed with the power tests and the Sanitary Engineer was asked to draw up a minimum outline scheme

to give some supply to central fountains (G.O. No. 316, P.H., dated 10th February 1933).

Ellore Water-supply improvements.—The work has been completed.

Bezavada Water works improvements were in progress.

Bezavada Drainage.—All open drains except in some hill lanes and bits in blocks Nos. 1 and 2 have been completed.

Salem Drainage.—All pipe laying has been completed except 24" diameter pipes in sewer No. 4, also 80 out of 83 manholes, 7 out of 31 drain junctions and 4 out of 12 overflows from manholes.

4. Improvements of existing installations were completed or were in progress by the Municipal Engineering agency for:—

	Estimated cost.	Expenditure to end of December 1932.
	Rs.	Rs.
Coonoor water-supply—Laying of pipe lines from Rallia to Bandami ...	42,300	41,081
Masulipatam water-supply—Reinforced concrete reservoir ...	96,750	83,298
Masulipatam water-supply—Extension of pipe lines ...	87,200	No information.
Vellore water-supply—Improvements—Supply from Palar source ...	1,62,330	1,14,618 up to 31st Jan. 1933.
Chingleput water-supply—Extension of pipe lines ...	21,218	20,115
Coimbatore water-supply—Extension of pipe lines ...	56,850	No information.
Vizagapatam water-supply—Improvements to supply (the second gallery and engine drivers' quarters remain to be done) ...	1,02,655	91,400
Kumbakonam water-supply improvements ...	69,200	No information.

The Srirangam Municipal Council has carried out a temporary scheme of water-supply at a cost of about Rs. 25,000. The question of improving it and making it permanent is under consideration.

5. Detailed plans and estimates were prepared and sent to the Chief Engineer, Public Works Department, for the schemes noted below:—

	Estimated cost.
	Rs.
Coimbatore drainage (revised) ...	16,30,000
Srirangam drainage (revised) ...	3,02,000
Arkonam water-supply (revised) ...	1,02,000
Virudhunagar water-supply ...	7,10,000
Saidapet water-supply extension ...	60,750

The Coimbatore drainage scheme as well as Tirupati drainage scheme for which plans and estimates had been already forwarded to Government were approved by them as key schemes and the

councils concerned permitted to carry them out by their own engineering agency piecemeal as funds permitted in pursuance of the policy laid down in G.O. No. 1117, P.H., dated 7th June 1927.

In G.O. No. 2108, P.H., dated 7th October 1932, construction of drains in certain streets in Tirupati by municipal agency as an instalment of the scheme was approved and detailed estimate amounting to Rs. 24,900 have also been sanctioned by this office in October 1932 or this work.

The last three schemes—Arkonam and Virudhunagar water-supply and Saidapet water-supply extension—have been sanctioned by Government in G.Os. Nos. 2314 W., dated 21st October 1932, 1701 W., dated 10th August 1932 and 2368 W., dated 12th November 1932, respectively, for execution by Public Works Department.

6. Plans and estimates for the following schemes were on hand or nearing completion with special staff:—

	Estimated cost.
	Rs.
Cochin drainage ...	3,00,000
Bellary drainage ...	4,50,000
Negapatam drainage ...	6,30,000
Kurnool drainage ...	5,76,300
Walajapet water-supply ...	1,02,500

By the ordinary staff of the office—

Trichinopoly drainage ...	15,50,000
Tiruvallur water-supply ...	1,80,000
Hindupur water-supply ...	2,04,000

7. The following schemes for which Government had already ordered preparation of plans and estimates could not be taken up during the year for want of staff or other causes:—

	Rs.
Peddapuram water-supply ...	2,16,000
Karur water-supply ...	3,60,000
Pollachi water-supply ...	4,20,000
Rajahmundry drainage (partial) ...	2,70,000

The preparation of plans and estimates for a drainage scheme for Sembiam was sanctioned in G.O. No. 1762, P.H., dated 5th December 1929. The site of the disposal works having had to be altered, however, the scheme required re-investigation; but the local body was unable to finance the cost of this investigation and the papers were therefore ordered to be recorded in G.O. No. 1491, P.H., dated 12th July 1932.

8. The following additional schemes were ordered to be taken up during the year:—

	Rs.
Adoni water-supply ...	10,10,000
Sembiam water-supply ...	1,25,000
Vizianagaram drainage ...	8,12,000

9. Orders were awaited for the preparation of detailed plans and estimates for the schemes noted below preliminary investigations for which had been completed and report sent either during the year or in previous years.

Vizagapatam drainage.	Mangalore drainage. (The Council has since expressed its inability to take up the same now and the papers have been recorded in G.O. No. 116, P.H., dated 17th January 1933.)
Nellore drainage.	
Salem drainage (supplemental).	
Salem water-supply (from Mettur Project).	
Periyakulam drainage.	Bezawada drainage (supplemental).
Tiruvavur water-supply.	Hospet water-supply.
Arantangi water-supply.	Bodinayakanur water-supply.
Palacole drainage.	

The preliminary investigation reports sent for Madanapalle and Paramagudi drainages were recorded as the local bodies concerned were unable to finance the schemes projected.

Tiruchallur Drainage.—A preliminary report for this scheme was submitted in 1930. In G.O. No. 2462, P.H., dated 17th December 1931, the Panchayat Board was informed that it should take up the water-supply scheme first and that if it was anxious to take up the drainage scheme also it should do so under the piecemeal execution system.

Penukonda Water-supply.—An yield test sanctioned in connection with a scheme of water-supply for Penukonda was carried out and report submitted recommending a scheme estimated to cost Rs. 44,500 to install and Rs. 2,100 annually to maintain. The proposal has been approved and preparation of detailed plans and estimates has been ordered in G.O. No. 278, P.H., dated 7th February 1933.

10. The following investigations were completed and reports on the investigations made were due from the Deputy Sanitary Engineers or were received and were under scrutiny in the Sanitary Engineer's office:—

Virudhunagar drainage.	Gudiyattam water-supply improvements.
Dindigul Fort tank improvements.	
Guntur water-supply improvements.	Hindapur drainage.
Improvements to Engineering College water-supply.	Palni drainage.
	Madanapalle drainage.

Chingleput Leper Settlement Water-supply.—The investigation for testing reliability of the wells in the settlement sanctioned by Government was carried out and report submitted to Government in August 1932. The Government in G.O. No. 284, P.H., dated 7th February 1932, have sanctioned the investigation of a scheme for supply of water with Palar as the source.

11. The investigations that were in progress during the year are detailed below:—

Karaikudi water-supply (full power test remains to be done).	Karaikudi drainage. Udamalpet water-supply. Kumbakonam drainage.
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12. The following investigations sanctioned by Government were not taken up during the year:—

Dhanushkodi water-supply.	The local bodies have not placed the necessary funds at the disposal of this department.
Pollachi drainage (survey plans are not ready).	
Mettupalaiyam water-supply.	
Ellore drainage—further investigation.	
Dharapuram drainage.	
Cumbum water-supply.	

13. A statement of estimates for sanitary works sent by local bodies scrutinized and sanctions accorded by the Sanitary Engineer and Deputy Sanitary Engineers is attached. Sixty-seven estimates aggregating to Rs. 4,60,857 were dealt with in the department.

14. A detailed statement of works carried out based on type designs issued by the Public Health Board is also appended.

15. The periodical analysis of public protected water-supplies in the Presidency were carried out as usual by the staff of the King Institute, Guindy. These enabled this department to locate the defects and suggest remedial measures wherever necessary or possible. Marked deterioration in the quality of the supplies was noticed at Adoni, Erode, Trichinopoly and Periyakulam.

16. The water-supply and drainage works in operation were inspected as far as possible by the Sanitary Engineer or Deputy Sanitary Engineers and suggestions made on matters that called for attention.

17. The pumping plants at the several pumping stations in connexion with water and drainage works were inspected also by the Boiler Inspection Department. The detailed report sent by the Chief Inspector of Boilers is appended to this report.

A perusal of the report will show that very few Councils take an active interest in the efficient upkeep of these plants installed at heavy cost.

The following require special mention:—

The Municipal Council of Trichinopoly has not been sending the weekly distribution returns or monthly pumping returns of water-works nor furnished the particulars necessary for preparation of the annual report of Chief Inspector of Boilers in spite of several reminders. Reports of Inspecting Officers sent for remarks have not also been returned with their replies for over a long period thus nullifying the exercise of any scrutiny over the working of the water-works. The Chief Inspector of Boilers remarked in his last

inspection report that the steam plant was working along with the electric unit and that this was not a satisfactory arrangement as it might lead to serious breakdown of the former and that another electric set or larger electric set working alone should be installed and the steam unit should be kept as a stand-by in case of failure of current and not for any peak loads.

Very little attention is also paid to the motor unit and it may have to be replaced in the very near future.

Bellary.—Proper attention is not paid to the plant at the Head Works and as a result consumption of fuel has increased considerably. The Municipal Chairman in his reply to the inspection notes says that from the middle of March to middle of August 1932 one engine had to be worked all the 24 hours and the other 8 to 10 hours in the day and that there was therefore no time to attend to repairs and cleaning. Such state of affairs should not be allowed as the plant which has been installed only very recently will deteriorate rapidly and also to avoid a sudden breakdown.

Negapatam.—The new chimney obtained early in 1929 has not yet been erected in spite of repeated advice. The cost of erection, etc., would amount to only about Rs. 1,200 and it should be taken up without further delay.

The road to the pumping station is in very bad condition and the Municipality should take over its maintenance if necessary from the Taluk Board as it is to its interest to keep it in good repair.

Berhampore.—The weekly distribution returns are not being received. The Deputy Sanitary Engineer's last notes of inspection sent to the Chairman on 30th August 1932 have not yet been returned with replies. A meter to measure the quantity of water supplied to the town should be installed early. The water-works fitter is also doing road roller driver's work during part of the year. This arrangement is not satisfactory and should be discontinued.

Cuddapah.—One of the two boilers at the main station is in repair from 1926 and the station depends for its working on a single boiler and its pump. The cover of this pump is fractured so that it may stop working at any moment. The suggestions made for repairs to the plant are not attended to.

Anantapur.—The plant which is a new one is rapidly deteriorating for want of necessary attention. The station is poorly equipped with the tools necessary for carrying out running repairs. A speedometer should be supplied to the engine room.

Guntūr.—The Council has installed a sub-pumping station to supply the high level areas and has opened public fountains indiscriminately without proper technical sanction. The irregularities should be rectified without further delay.

Madura.—The boilers at Kochadai Pumping Station are reported to be fitted with cast iron headers, caps and mud drums not allowed by the Indian Boiler Regulations and not safe. The cost per w.h.p. is higher probably due to inefficiency of the boiler plant and is a further argument for replacing them.

The working of the boilers at Arapalaiyam is unsatisfactory and the plant requires thorough overhauling at a cost of about Rs. 3,000. If this is done the coal consumption could be reduced by about 40 per cent. Proposals for electrification which is probably not likely to be taken up during the present financial depression should not keep back these immediately necessary improvements.

Gudiyattam.—The pay of the staff at the Head Works is ridiculously low and should be raised to enable suitable men to stick to the appointments and work contentedly.

18. *Experiments on Water Purification.*—Experiments to arrive at correct data as to the depth of drainage layers to be adopted for slow sand filtration in regard to the percolating filters for Madras water started last year at Kilpauk were continued to definitely establish the results arrived at last year. The following experiments were also carried out:—

Percolating filter having 6 feet depth of material followed by sand filtration.

Single stage percolation having 1 foot depth of fine material over 1 foot depth of coarse material followed by sand filtration.

Two stage percolation having in each percolation 1 foot depth of fine material over 1 foot depth of coarse material followed by sand filtration.

Sand filtration after treating raw water with varying doses of alum.

Sand filtration after treating raw water with coppersulphate and giving 8 days settlement.

Rapids and filtration of raw water through beds having different depths and different grades of sand.

Rapid filtration through a mechanical filter followed by a percolating sand bed.

At Guindy experiments in intermittent and continuous percolation were in progress to observe their comparative efficiency and their behaviour during different seasons of the year.

In G.O. No. 482, P.H., dated 3rd March 1932, the Committee on water filtration was dissolved and the administration of the experiments was entrusted solely to the Sanitary Engineer and the Director, King Institute. This arrangement enables the work being carried out smoothly and efficiently.

19. None of the local bodies possessing water-supply systems took advantage of the facilities for training their subordinates in water filtration methods available at the Experimental Filter Station, Kilpauk. Demonstrations in the principles of water purification and on the working of different types of filters were given to students of the Health Inspectors' class, Medical students, students of the Engineering Colleges at Guindy, and at Bangalore, students of the Government School of Technology and health visitors.

20. The maintenance of the sewage disposal works attached to the College of Engineering, Guindy, continued to be under this

department. A portion of the final effluent is being used to grow plantains on a part of the sewage farm. There is scope for its extension provided necessary staff and funds are available.

21. Examinations for the grant of certificates for engine drivers and waterworks fitters were held in January 1932 and the particulars of certificates granted are as noted below:—

	No.
<i>Engine Drivers</i> —	
For competency	58
For service	56
<i>Waterworks Fitters</i> —	
For head works fitters	6
For pipe line fitters	2

22. The lectures in Elementary Sanitary Engineering at the Medical College for Health Officers and Health and Sanitary Inspectors were given by Mr. C. V. Gupta, Instructor, singlehanded as the post of the full-time Lecturer was abolished as a measure of retrenchment from 1st January 1932.

23. During the year I continued to officiate as Sanitary Engineer. Two posts of Deputy Sanitary Engineers and the post of Personal Assistant to the Sanitary Engineer were abolished as a measure of retrenchment and the three charges of the Deputy Sanitary Engineers were re-distributed between two Deputies with headquarters at Trichinopoly and Bezwada. The several circles were in charge of the officers as shown below:—

Northern Circle ...	Mr. G. V. Rao in additional charge till 28th April 1932.
	" Muhammad Howth from 29th April to 31st December 1932.
Southern Circle ...	" G. V. Rao in additional charge from 1st January to 5th April 1932.
	" A. V. Raman from 6th April to 14th September 1932.
	" G. V. Rao from 15th September to 14th November 1932. Raman having been granted leave.
	" A. V. Raman from 15th November to 31st December 1932.
Central Circle ...	" Muhammad Howth from 1st January to 29th April 1932 when it was abolished.

The Boiler Circle offices were in charge of the officers noted against each Circle in the sub-joined table:—

Waltair Circle ...	Mr. R. L. Lazarus from 1st January to 11th April and from 12th June to 5th October 1932.
	" J. L. Thompson from 12th April to 11th June 1932.
	" P. T. Koman Nayar from 6th October to 31st December 1932.
Bellary Circle ...	" S. A. Davis from 1st January to 31st December 1932.

Trichinopoly Circle.	Mr. C. Satyanarayana Raju from 1st January to 29th March and from 11th April to 17th October 1932.
	" J. L. Thompson from 1st to 10th April 1932.
	" R. L. Lazarus from 24th October to 24th November 1932.
	" C. M. Seymour from 25th November to 31st December 1932.
Coimbatore Circle ...	" R. Bazely from 1st January to 30th November and from 23rd to 31st December 1932.
	" J. L. Thompson from 1st to 22nd December 1932.
Madras Circle ...	" P. T. Koman Nayar from 1st April to 26th September 1932.
	" C. M. Seymour from 27th September to 20th November 1932.
	" R. L. Lazarus from 21st November to 31st December 1932.

9th July 1933.

G. V. RAO,
Sanitary Engineer to Government.

ANNEXURE A.

Statement showing the Number and aggregate estimated Cost of the Sanitary Works prepared by the Local Bodies sanctioned or recommended for sanction by the Sanitary Engineer or Deputy Sanitary Engineer in 1931.

Particulars.	Medical Institutions.		Markets and slaughter-houses.		Latrines.		Water-supply.		Drainage.		Miscellaneous.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Below 2,500	...	...	2	3,825	1	1,604	9	5,330	7	8,637	...	...
2,500 to 10,000 ...	6	41,335	3	14,540	7	20,256	11	55,645	15	71,890	1	3,938
10,000 to 50,000 ...	...	...	...	...	...	...	4	1,31,050	...	...	...	...
Above 50,000	...	...	...	...	...	...	1	1,02,654	...	...	...	...
Total	6	41,335	5	18,365	8	21,860	25	2,04,639	22	80,662	1	3,938

Number of estimates, 67.

Aggregate cost, Rs. 4,60,657 as against 60 estimates costing Rs. 4,21,300 in 1931.

Town.	Description of work.	Number of type-designs on which based.	Cost.	Sanction number.	Date of completion.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Municipalities.			
Calicut	... Drains, Sweetmeat Street.	32/29	Rs. 2,110	1957 M., dated 3rd Oct. 1931.	14 June 1932.	Satisfactory.
Cochin	... Latrine. Six seats	49/27	599	...	8 Jan. 1932.	Most suitable to the locality with impervious concrete floor in the receptacle for pan.
Kumbakonam	... Infections diseases ward. Ten beds.	56/27	9,798	...	Nov. 1932.	Successful.
	Scavengers' colony	186/18	8,802	614-M., dated 23th Oct. 1930.	Apr. 1932.	Do.
Kurnool	... Dry latrine	193	930	845, dated 8th Oct. 1931.	Sep. 1932.	This type with a pig wall is found most useful.
Scrangam	... Drains	49/27	9,143	1002, dated 13th Oct. 1932.	Sep. 1932.	Quite suitable and much appreciated.
Tirupeti	... Dry earth latrine	...	596	...	...	...
Tuticorin	... Drains	44/06	{ 3,418 918 244 }	42-M., dated 25th Feb. 1932.	18 May 1932.	Successful.
Vizagapatam	... Out-patients' dispensary	163/14	8,596	1885-M., dated 12th Sep. 1927.	June 1932.	Satisfactory. Provision of a store room seems desirable, as it is a real necessity.
			District Boards.			
Tirunelveli District.	Chittoor Drains	...	{ 884 1,985 1,324 }	...	...	Satisfactory.
	Latrines	190	715	...	...	Do.
Korrur, West Godavari District.	Sub-Assistant Surgeons' quarters.	141-B	4,887	192-S., dated 25th Apr. 1918.	20 Jan. 1932.	The latrines are arranged in the desired way too close to the dwelling house.

REPORT ON THE WORKING OF THE PUMPING PLANTS
BELONGING TO LOCAL BODIES IN THE MADRAS
PRESIDENCY UNDER THE SUPERVISION OF THE
BOILER INSPECTION DEPARTMENT FOR THE YEAR
1932.

Anantapur.—One of the centrifugal pumps was sent for repairs to Madras. On examination it was found badly worn and was condemned, and orders were placed with Messrs. Crossley Bros. for the supply of an identical pump. As they supplied a wrong pump, it was returned. The water-supply to the town now depends on only one pump and the Council will do well to arrange for the early purchase of a new pump.

The plant and the station were kept neat and tidy.

Bellary.—No action was taken by this municipality for effecting necessary alterations to the suction pipes with the result that the consumption of fuel has considerably increased.

The required attention to the maintenance of the plant is not paid owing to disharmony among the staff at the pumping station.

Bewdala.—The pumping plant here is practically on its last legs. The accident during the year to the new 41 b.h.p. oil-engine was traced to carelessness on the part of the head driver who was discharged but again reinstated. A little later he was again discharged for suspected theft and sale of crude oil. Such changes and reversals or orders result in no one accepting responsibility for the work or the condition of machinery. The plant is about to be replaced by electrical units.

All tenders received in connexion with the electrification of Bezwada Waterworks were scrutinized and returned with recommendations.

Chidambaram.—Though the machinery is in good condition the fuel consumption is high. A better quality coal had been recommended by this department but no action seems to have been taken.

The Venturi Meter and the Mechanical Lubricators were set right and are working satisfactorily. It is gratifying to note that after the advent of the Special Officer, the recommendations made by this department are given effect to.

Ohingleput.—The station is working very satisfactorily since the new Superintendent recommended by this department was appointed. The Council is also taking an interest in the efficient up-keep of the station and plant and has been carrying out the recommendations of this department made from time to time. The capacity of this plant is insufficient to meet the demand of a town like Ohingleput with an increasing population. However steps are being taken to increase the capacity of the pumps by reducing the suction head.

Cocanada.—During the year one electric pumping unit was installed displacing the steam unit.

The new plant is working satisfactorily but is not cheaper than the old steam plant.

Conjeevaram.—This is one of the cheapest running stations with a gas engine used as power unit and a vertical plunger pump. But the indifference of the Council in carrying out the recommendations of this department is leading to loss of efficiency in the plant and lack of discipline on the part of the staff. It is a pity the Council does not pay more attention to the remark of inspecting officers who really understand and recommend what is actually required.

Cuddalore.—The plant was newly installed. A test was taken under full working conditions on 23rd June 1932, but complete working costs per w.h.p. per hour could not be made for want of proper gauges. Compound and pressure gauges were recommended to be fitted to the pumps to allow of a complete test being made.

Cuddapah.—The steam units are in a very bad state and require to be thoroughly overhauled, but the Council merely ignore the repeated recommendations made for improving the efficiency of the plant.

Dindigul.—The pumping units are in good condition. Due to the supply of water under gravitation for the greater part of the year they are only used occasionally.

Ellore.—The pumping plant has been working with fair satisfaction though there has been an increase in the consumption of fuel due principally to inefficient boilers. The workshop has not been properly equipped in spite of repeated recommendations.

Erode.—Revised proposals giving the cost of scheme for the electrification for one unit were sent. No. 2 unit was thoroughly overhauled. No. 1 unit which has been working for over 11 (eleven) years without any major repairs requires thorough overhauling. In spite of repeated recommendations, a workshop was not provided at this station. The plant overhauled is working very satisfactorily.

Gudiyattam.—The plant is working satisfactorily. The staff is discontented as they are underpaid when compared with similar stations. The Council will be well advised to give effect to the recommendations made in regard to their pay if the efficiency of the plant is to be maintained.

The station is in need of a second gas producer to enable repairs being carried out to the single gas producer now in use.

Kumbakonam.—The machinery was maintained in good condition and all repairs recommended by this department were attended to.

Kurnool.—The electric pumping plant is being worked satisfactorily but at a very much higher cost than the old suction gas plant which is being kept as a stand-by in good repair.

Madura-Kochadai Waterworks.—The plant was maintained in good condition. Further economy in fuel consumption and pumping costs was noticeable. Recommendation for the installation of

two water tube boilers of the Babcock and Wilcox W.I.F. type of about 980 square feet heating surface which will give a slightly higher duty and for the fitting of a new chimney in place of the existing one of smaller dimensions was made. This will reduce the cost of working the plant considerably. The present boilers are working contrary to the Boiler Regulations in force and the question of replacement must be taken up early.

Madura-Arapalaiyam Waterworks.—The plant continued to work unsatisfactorily. The engines are gradually being overhauled and it is hoped that after complete overhauling, there will be reduction in the cost of pumping.

Madura-Main Drainage Pumping Station.—It was not working as economically as anticipated. After carrying out certain recommendations made by this department in regard to boiler setting, reduction in coal consumption was noticeable.

Masulipatam.—One pumping unit has been out of commission for most part of the year for change of parts which is providing some work for the Municipal Workshops. This practice is objectionable as not only such prolonged repairs defeat the purpose of keeping a spare unit but tend to swell up the repair bill. The Council has been advised to get estimates for repairs made, scrutinized and sanctioned before commencement of work. New end plates for pressure filters have been recommended as existing ones are leaking badly.

Negapatam.—The plant was maintained in good condition and the pumping costs were kept within reasonable limits. The new chimney recommended to be erected two years back is still lying in the yard.

Nellore.—The plant is out of date and is being kept in running order irrespective of economy and efficiency until such time as the station is remodelled and new engines and pumps installed for which proposals have already been put forward.

Palacole.—The new pumps and engines were in good order. Recommendations by this department especially with regard to quality of lubricating oil used were not attended to and such indifference in course of time is likely to bring trouble. The station is also starved of essential tools and stores.

Tanjore.—This plant had been reported previously to be in a very bad state; but, since last year, improvements in the working conditions of the plant are noticeable. The pumping cost had been materially reduced without at the same time curtailing the water-supply to the city. Proposals for the alteration of the pumping plant with capital costs and maintenance charges were put forward.

Trichinopoly—Main Pumping Station.—The electrification of the main pumping station is proceeding. The steam plant is being run in conjunction with the electric pumping set which is not

recommended. In spite of repeated reminders, the monthly statements of pumping particulars have not been submitted to this department for the last one year.

Particulars even for the preparation of this report are not yet received.

Trichinopoly—Sub-pumping Station.—The sub-pumping station was electrified.

Particulars for the preparation of this report are not yet received.

Vellore.—The plant at the Palar Waterworks recently installed was working satisfactorily. The Council has not carried out the recommendations made by this department. Charcoal and other materials have to be brought to the station every day from the Municipal Office or from the contractor's premises until which time the pumping station has to remain idle.

Vellore—Drainage.—The plant installed at this station has never worked satisfactorily. The pumps are not intended for sewage pumping but for clear water. Recommendations have been sent both for better pumps and better arrangement of the station and steps may be taken for the replacement of these pumps by the correct type of sewage pumps and to set for sewage pumping. The gas plant and producers also require complete overhaul as recommended in report made.

Vizianagram.—Complete reconditioning of boilers and pumping engines was commenced during the year as efficient of pumping had reached very low limits.

Vizagapatam Head Works—Madasarlova.—The pumps and engines were working satisfactorily but at a less capacity than originally intended for.

Re-pumping Station at Waltair.—One unit at this station was discarded and replaced by an oil-engine and a centrifugal pump.

Tuticorin.—The plant was tested and taken over by the Municipality in July 1932. It was working satisfactorily.

Besides the periodical inspection of the plants mentioned above, the following work was also done:—

Proddatur Water-supply Scheme.—The plant was erected by the Public Works Department. Owing to a mistake in the ordering of the pumps, the output of the pumps was less than the designed delivery of 209 gallons. To obtain the necessary pump speed, there were only two courses left open, the fitting of smaller pulleys to suit both engines and pumps. The latter method, though costly, would best suit the situation and was recommended.

Tiruvannamalai Water-supply Scheme.—Tender specification for the pumping plant was prepared and sent.

Madras Drainage—Law College Pumping Plant.—This plant which is not under the supervision of this department was inspected and report as to the adequacy or otherwise of the existing plant

to deal with the ultimate sewage flow as well as proposals containing capital costs and maintenance charges for alteration of plant were sent.

Rajahmundry Water-supply Scheme.—Tenders for the electric pumping plant were scrutinized and reported on.

Pushkaram Temporary Water-supply for Rajahmundry.—An oil-engine plant was selected and installed under the supervision of this department giving a very satisfactory supply of water during the festival.

Chodavaram Water-supply Scheme.—A report for a suitable pumping plant with capital and working costs was sent.

Bezavada Drainage Scheme.—Dimensioned sketches of the engine house for accommodating oil-engines and electric driven pumps together with a report containing capital costs and maintenance charges were sent.

Tadpatri Water-supply Scheme.—Suggestions were made for the requisite pumping plant.

General Remarks.—As in previous years, very little attention was paid by the majority of the Councils to such important works as water-supply and drainage, but with the advent of Executive Officers a more active interest in this work is anticipated. A special point for their consideration is the tabular statement attached to the report.

For instance, from the figures furnished by the Vizagapatam Municipality for their plant at the Vizagapatam Head Works consisting of oil-engine and centrifugal pumps, the consumption of fuel oil works out to 11.7 lb. per w.h.p. per hour which is out of all proportion to what may be expected as there are no stand-by losses.

The approximate consumption can be obtained from the periodical tests made by this department which are incorporated in the inspection notes forwarded to the Councils.

J. L. THOMPSON,

Chief Inspector of Steam Boilers.

9th July 1933.

Statement of Pumping Particulars for 1932.

Serial number and stations.	Consumption of fuel per w.h.p. per hour including all stand-by losses.	Cost of oil and fuel per million foot gallons.	Type of plant.
	LB.	AS.	
1. Anantapur ...	Particulars could not be furnished as they have not been given by the Council.		
2. Bellary ...	5.2	9.3	Crosley suction gas engines and 5-stage, belt-driven Worthington Simpson centrifugal pumps.
3. Bezvada ...	1.6	5.1	Diesel oil engine, Blackstone spring injection cold starting crude oil engine and an auxiliary portable boiler and engine with belt-driven Worthington triplex, deep-well pump.
4. Chidambaram ...	16.1	20.8	Hawthorn, Davey horizontal, compound, surface condensing pumping engines.
5. Chingleput ...	4.1	8.6	Crosley suction gas engines with belt-driven Mather and Platt two stage Medivade centrifugal pumps.
6. Cocanada ...	19.2	11.9	Horizontal, direct-acting, compound, surface condensing Worthington pumping engines.
7. Conjeeveram ...	14.04	14.0	Horizontal, direct-acting, compound, non-condensing Worthington pumping engines and Crosley suction gas engine with belt-driven Hayard-Tyler triplex pump.
8. Cuddapah ...	Particulars could not be furnished as there is no meter attached to the pumping main.		
9. Dindigul ...	81.5	103.1	Direct acting steam pump and oil engine and centrifugal pump.
10. Ellore ...	19.3	11.4	Horizontal, direct-acting, triple expansion, surface condensing Worthington Fly-wheel pumping engines.
11. Erode ...	2.9	3.3	Vertical, direct-acting, triple expansion, surface condensing Worthington pumping engines.
12. Gudiyattam ...	2.6	3.9	Crosley suction gas engines and Gwynnes' belt-driven centrifugal pumps.
13. Kumbakonam ...	3.30	15.7	8 h.p. Petter's crude oil engine with belt-driven centrifugal pump.
14. Kurnool ...	1.9	14.08	Crosley suction gas engines with belt-driven centrifugal pumps and electric driven centrifugal pump.
15. Maduru-Kochadai (Main) ...	3.9	4.1	Horizontal, direct-acting, triple expansion, jet condensing Worthington pumping engines.
16. Maduru-Arapalayam (Sub.) ...	15.1	16.1	Horizontal, direct-acting triple expansion, surface condensing Worthington pumping engines.

Statement of Pumping Particulars for 1932—cont.

Serial number and stations.	Consumption of fuel per w.h.p. per hour including all stand-by losses.	Costs of oil and fuel per million foot gallons.	Type of plant.
	LB.	AS.	
17. Masulipatam ...	15.9	13.8	Horizontal, direct-acting, compound, surface condensing Worthington fly-wheel pumping engines.
18. Negapatam ...	6.6	6.1	Vertical, direct-acting, triple expansion, surface condensing Worthington pumping engines.
19. Nellore ...	1.2	7.9	Hornsby Akroyd oil engines with belt-driven Worthington triplex deep-well pumps.
20. Palacole ...	1.5	10.5	Blackstone cold starting crude oil engines and centrifugal pumps.
21. Tanjore ...	10.7	12.5	Vertical, direct-acting triple expansion, surface condensing Worthington pumping engines.
22. Trichinopoly (Main) ...	Particulars could not be furnished as they have not been given by the Council.		
23. Trichinopoly (Sub.) ...			
24. Vellore (Water-works) ...	2.3	3.5	Crosley suction gas engines with belt-driven centrifugal pumps.
25. Vellore (Drainage) ...	3.2	4.50	Do. do.
26. Viziansagram ...	10.6	6.2	Vertical, direct-acting, triple expansion, surface condensing Worthington pumping engines.
27. Vizagapatam (Head Works) ...	11.7	66.3	Crosley oil engine and centrifugal pump.
28. Waltair ...	1.8	11.8	Hornsby oil engines with belt-driven Worthington triplex pumps.

MADRAS,
10th July 1933.

J. L. THOMPSON,
Chief Inspector of Steam Boilers.

LOCAL SELF-GOVERNMENT (PUBLIC HEALTH)
DEPARTMENT.

Public Health—Annual Report, 1932—Reviewed.

II

III

Paragraph 3, item 5, Tadpatri Water-supply.—In his report, dated 30th June 1933, to the Chairman, Municipal Council, Tadpatri, the

[illegible]

Executive Engineer, Bellary division, has stated that the two five horse-power oil-engines installed at the waterworks should first be fitted with "delivery pressure and compound gauges" and then tested by the Chief Inspector of Steam Boilers before the waterworks is handed over to the Municipality.

Paragraph 5, item 2, Srirangam Drainage.—The revised plans and estimates received from the Sanitary Engineer have been returned to him for further revision.

Paragraph 5, item 5, Saidapet Water-supply.—The Superintending Engineer, Madras Circle, has been asked to submit necessary tenders for the engines and pumps together with revised plans and estimates for the scheme and their receipt is awaited.

Paragraph 9, item 12, Bodinayakanur Water-supply.—Further investigation of the scheme has been sanctioned in G.O. No. 1268, P.H., dated 12th June 1933.

Chief Inspector of Steam Boiler's Report on the working of the Pumping Plant—Proddatur Water-supply Scheme.—The Government have called for a report on the remarks made by the Chairman, Municipal Council, Proddatur, regarding the delay in handing over the works to the Municipality. The Sanitary Engineer's explanation has been called for and it is still awaited from him.

Order—No. 2242, P.H., dated 9th October 1933.

Recorded.

2. The total number of deaths (992,024) from all causes during the year was the lowest for the quinquennium. As compared with the previous year there was a large decrease of 80,548 deaths. The most noticeable feature was the phenomenal drop in the mortality from cholera. The details in regard to this and other important diseases are given below:—

Cholera.—There was a striking fall from 30,232 to 5,278 in the number of deaths from cholera. About 97 per cent of the deaths was recorded in the first half of the year and the Presidency was practically free from the disease during the second half. This freedom from cholera has been a unique feature in the history of

the disease in this Presidency during the last fifty years and it is interesting to note that the forecasts made in this connexion during the year proved true.

Smallpox.—The mortality from smallpox rose from 4,660 to 5,363. When in every other Province of India there was a severe epidemic of smallpox, the figures of mortality in this Presidency must be considered satisfactory and this is entirely due to the progress of vaccination. Almost all the districts in the Presidency reported deaths from smallpox.

Plague.—The number of deaths from plague rose from 1,073 to 1,561. This disease was prevalent in eight districts and nearly 61 per cent of the total mortality occurred in the Madura district alone. Active research into the epidemiology of plague was conducted by the Research officer in the Cumbum valley of the Madura district.

Malaria.—The mortality from malaria is included in the figures shown under fevers which accounted for nearly 80 per cent of the total number of deaths from all causes. Owing to financial stringency the Government had to curtail their expenditure on anti-malarial operations in the Vizagapatam Agency and local bodies also suspended their activities in regard to the control of malaria, except in the Vizagapatam Municipality, the Rameswaram Island and the villages of Humma and Chatrapur in the Ganjam district. The scheme of free distribution of quinine was revised during the year and extended to new areas. As was expected, there was a fall in the number of deaths from fevers in the areas where quinine was distributed.

3. *Registration of Vital Statistics.*—It is gratifying to note that the centralization of the work of compiling the vital statistics of non-municipal areas in the Director of Public Health's office has resulted not only in increased completeness and accuracy in registration and compilation but also in more prompt and complete reports by Tahsildars and Chairmen of Municipal Councils of all cases of epidemic diseases occurring within their jurisdiction. In spite of certain defects the registration of vital statistics in this Presidency is said to be the best in India at present. 63,249 unregistered births and 19,068 unregistered deaths were detected by the District Health Staff. This only shows the need for further improvement in the standard of the vital statistics records. The Government trust that with the willing co-operation of the local authorities responsible for registration and the public the standard of the vital statistics records in this Presidency will show further improvement. The Government desire in this connexion, to draw the attention of the local boards to the fact that the appallingly bad state of registration in the Devakotta panchayat has considerably improved after the appointment of a Sanitary Inspector. They would therefore

impress on major panchayats the importance of appointing Sanitary Inspectors for this branch of work.

Birth-rate.—The recorded birth-rate during the year under review was 36.03 per mille, the rate for 1931 and the quinquennial average being 35.54 and 37.43 respectively. The birth-rate exceeded the death-rate in all districts. This registered birth-rate in the municipalities rose from 35.19 to 36.59, while that in rural towns fell from 35.89 to 34.31. The Tenali Municipality registered, as in the previous year, the lowest birth-rate. This Municipal Council has failed, in spite of repeated warnings, to realize the value of the accurate registration of vital statistics and the Government trust that no effort will be spared to effect a substantial improvement in this respect. Nine rural towns recorded a birth-rate below 20 per mille and of these five towns were in Ramnad. The low birth-rates are attributed mainly to defective registration and the Collector of Ramnad is requested to pay personal attention to the matter and see that necessary measures are taken to improve registration in these towns.

Death-rate.—The recorded death-rate was 21.96 per mille, the rate for 1931 and the quinquennial average being 25.72 and 25.05 respectively. The registered death-rate fell in the municipal towns from 27.19 to 26.24 and in rural towns from 22.84 to 21.63. The attention of the municipal councils of Tadpatri and Tenali is drawn to the low death-rates registered by them year after year. The registration of vital statistics is evidently very defective in these municipalities. These councils should make every endeavour to improve the accuracy of their records.

4. *Rural Sanitation Campaign.*—The rural sanitation units in the Presidency were, as usual engaged in educating the masses on the evils of soil pollution and as to how to combat the hookworm infection. Of the 164,588 treatments given for hookworm 149,730 were provided in the medical institutions of the Presidency and the remainder by the rural sanitation field units.

The provision of a sufficient number of latrines is a most important step in the control of hookworm infection and it is to the credit of the Madura District Board that it has spent large sums of money in that direction. The Government note that a few other district boards have followed the good example set by the Madura District Board and have provided funds for this important work. The remaining boards too are advised to do the same especially as one of the objects for which the Village Development Fund has been constituted is the promotion of sanitation and public health.

5. *Maternity and Child-welfare.*—The year witnessed an increase of 238 in the number of registered midwives in the Presidency. The total number of midwives (1,751) was still very inadequate. The mortality from child-birth decreased from 14,365 to 12,589.

Owing to financial stringency the number of child-welfare centres outside Madras City decreased from 127 to 118 during the year. The infant mortality rate which fell from 186.6 to 182.9 was still very high. It is hoped that with the increased supply of trained midwives and the advent of improved finances, there will be some improvement in this direction.

6. *Health Propaganda.*—There was a further improvement in regard to education in health subjects by means of lectures, short talks, magic lanterns and health week celebrations. The Government however note with regret that the municipalities of Anakapalle, Chittoor, Kumbakonam, Ongole, Tiruppattur and Vaniyambadi failed to report on any propaganda work during the year.

7. *Fairs and Festivals.*—Five hundred and eighty-five festivals were celebrated during the year. The recommendations of the Public Health Department were generally carried out by the taluk boards and the panchayat boards, but in some cases sufficient funds were not provided by the local bodies. The arrangements in the districts of Ganjam, Tinnevely, Guntur, Madura, West Godavari, Nellore, South Kanara and Tanjore were inadequate. The Collector of South Arcot had to take action under section 92 of the Madras Local Boards Act, 1920, during the Masimakham festival at Killai. The amendment to the Hindu Religious Endowment Act suggested by the Director of Public Health in the matter of the levy of contribution from temple authorities by local bodies is under the consideration of Government. It is gratifying to note that the Godavari Pushkaram festival which was celebrated at Rajahmundry and other centres in the East and West Godavari districts passed off without any outbreak of cholera or other epidemic. Local bodies are advised to pay sustained attention to the improvement of the sanitary condition of perennial pilgrim centres.

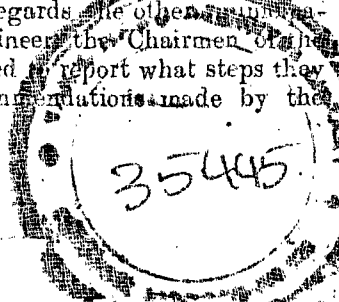
8. *Vaccination.*—The rules for the enforcement of compulsory vaccination were revised and re-vaccination was made compulsory. There was a marked increase in the number of re-vaccinations. The fall in the primary vaccinations may be attributed to the decline in the number of unprotected children on account of the efforts of the department in the previous years. The total number of unprotected cases detected during the year (1932-33) rose from 2.53 to 2.70 lakhs. The local boards of the areas in which vaccination is not compulsory have been asked to take steps to make it compulsory. In the interests of the successful administration of vaccination all Presidents of Taluk Boards have been asked to authorize the District Health Officers to file complaints in regard to offences against vaccination rules. It is hoped that with the adoption of these methods the administration of vaccination will show further improvement.

9. *Water-supply and Drainage.*—Protected water-supply schemes have been installed in 37 out of the 82 municipalities in the

Presidency, of which three were completed during the year under review. Besides these schemes the Proddatur water-supply installation is also reported to have been practically completed. The execution of water-supply schemes was in progress in (1) Coimbatore, (2) Tiruvannamalai, (3) Saidapet, (4) Tadpatri and (5) Rajahmundry. The Government have also sanctioned during the year under review the Virudhunagar water-supply scheme and this work has already been started. Detailed plans and estimates have just been received for the Walajapet water-supply scheme and they are under the consideration of the Government. As regards panchayat boards the Government have sanctioned the execution of the Arkonam water-supply scheme. Plans and estimates have been received for the Tiruvallur water-supply scheme and the panchayat board concerned has been addressed regarding the financing of the scheme. As regards the schemes for which investigation reports have been received from the Sanitary Engineer no orders have yet been passed on the Tiruvarur and Arantangi water-supply schemes which are now under reference with the local bodies concerned. The Hospet water-supply scheme has been dropped owing to the Council's inability to find the necessary funds. As for the scheme for the supply of water to Salem from Mettur, it is proposed to ask the Municipal Council to report whether it is prepared to finance it on the basis of a half grant and half loan.

Drainage.—Further progress was made during the year in the execution of the Bezwada and the Salem drainage schemes. Sanction was accorded during the year for the piecemeal execution of the Tirupati and the Coimbatore drainage schemes. Plans and estimates were under preparation for five schemes (Cochin, Bellary, Negapatam, Kurnool and Trichinopoly) of which one (Negapatam) has since been completed. The investigation of two schemes in rural areas was also completed during the year.

The Government have repeatedly drawn the attention of local bodies, in their previous reviews on the Public Health Report, to the desirability of carrying out the recommendations made by the Chief Inspector of Boilers for the proper maintenance of the pumping plants. The Sanitary Engineer again reports that very few Councils take an active interest in the efficient upkeep of these plants which were installed at heavy cost. He states that the following municipalities require special mention for their indifference, viz., Trichinopoly, Bellary, Negapatam, Berhampur, Cuddapah, Guntur, Madura and Anantapur. The Government have since appointed Commissioners for Trichinopoly and Madura and they trust that the officers concerned will take immediate steps to give effect to the recommendations of the Chief Inspector of Boilers. As regards the other municipalities referred to by the Sanitary Engineer, the Chairmen of the Municipal Councils concerned are requested to report what steps they propose to take to carry out the recommendations made by the inspecting officers.



தமிழ்நாடு ஆவணக்காப்பக நூலகம்,
எழும்பூர், சென்னை-600 008.

தவணைத்தாள்.

சே எண் :

ப. எண் :

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