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COLOMBO MUNICIPALITY.

Administration Report

1907.

Public Health Department.

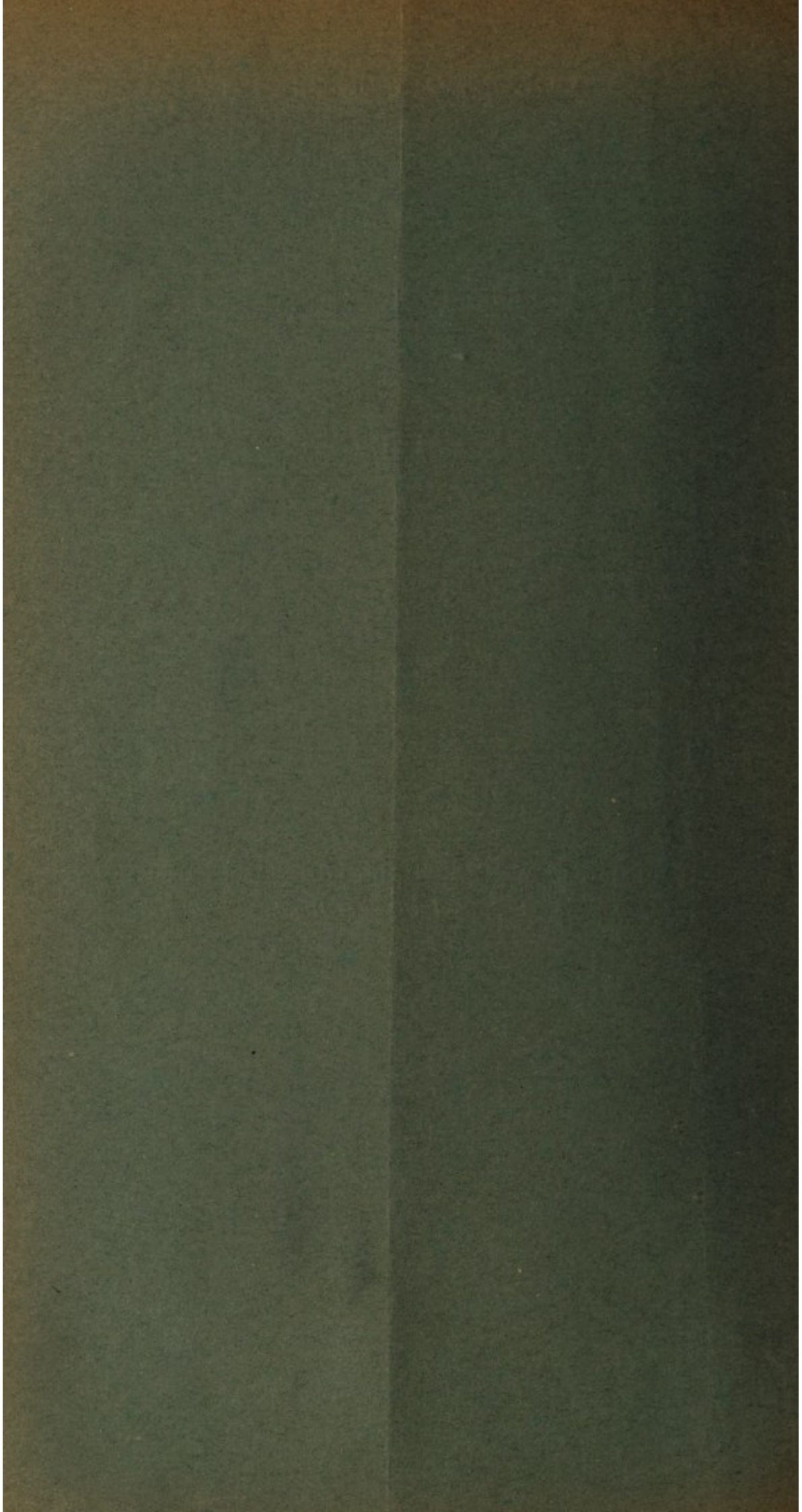
REPORT BY WM. MARSHALL PHILIP, M.B., D.P.H.,
Medical Officer of Health.



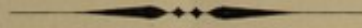
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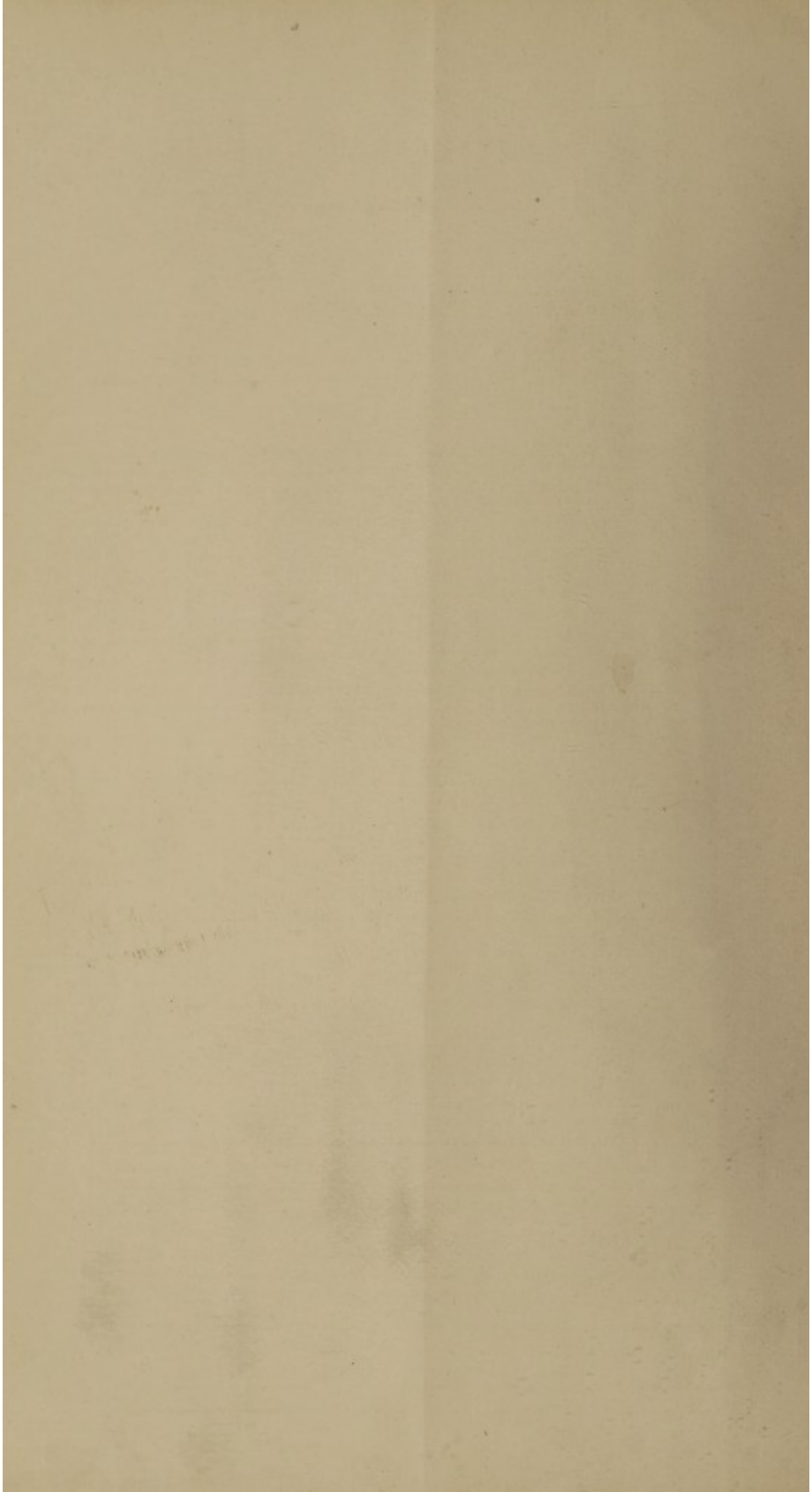
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ANNUAL REPORT 1907.

SIR,

I HAVE the honour to submit my Report for the year 1907.

The Vital Statistics in respect of the principal causes of deaths during the last 11 years have been dealt with for the most part in the following pages, but those in regard to the Fevers have been dealt with separately in my Report No. 257 of July 28, 1908, to which reference is requested.

Section I.

2. **Health of the population.**—The health of the population was on the whole better than usual, the death-rate from all causes being 32.5 per 1,000 as against the average of 33.8 for the previous 10 years, and 39.8 during 1906. These are crude rates as the rates of previous years being crude, a corrected rate would not be comparable with the average. The improvement in the death-rate for 1907, compared with the average of the previous decennium was due mainly to a decrease in the number of deaths ascribed to Dysentery, Diarrhœa, Fevers, Bronchitis, Infantile Convulsions, Tetanus and Ankylostomiasis. There was on the other hand an increase in the number of deaths ascribed to Phthisis Pneumonia, Ill-defined Causes, and Typhoid Fever.

With regard to the Typhoid Fever statistics reference is requested to my special report on Fevers (No. 257 of July 28, 1908.)

The principal cause of deaths amongst the population as a whole was as usual Phthisis, which caused a mortality of no less than 4.00 per 1,000 living. Compare this with the rate in London in 1906, viz., 1.44 per 1,000. This disease alone has caused more deaths during each of the last seven years than all the Fevers combined, including Enteric. It has moreover steadily increased as a cause of deaths from 2.38 per 1,000 in 1897 to 4.00 in 1907. It was the chief cause of deaths in 1907, in every race except the Europeans and the Tamils. Europeans as usual suffered most from Typhoid Fever and Dysentery, and Tamils from Diarrhœa and Pneumonia. For further particulars see section 21.

3. **Meteorology.**—The following statements kindly supplied by Mr. Barnard, Superintendent of the Observatory, give the chief points in regard to the Meteorological conditions during 1907. It will be seen that the rainfall was 16.03 inches below the average of the previous 38 years, the shortage being in the South-west Monsoon :—

TABLE I.

(a) AVERAGE MONTHLY MEAN TEMPERATURE AT COLOMBO.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
38-39	79.1	80.3	82.1	82.6	82.4	81.0	80.6	80.8	80.9	80.1	79.8	79.2	80.7

(b) MONTHLY MEAN TEMPERATURE AT COLOMBO, DURING 1907.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1907	79.6	80.8	82.4	82.7	81.6	79.7	79.2	78.6	80.1	78.7	78.0	79.7	80.1

(c) AVERAGE MONTHLY MEAN PRESSURE AT COLOMBO.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
38-39	29.875	29.876	29.854	29.840	29.805	29.811	29.801	29.829	29.845	29.848	29.855	29.839	29.840

(d) MONTHLY MEAN PRESSURE AT COLOMBO, DURING 1907.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1907	29.878	29.883	29.859	29.819	29.820	29.812	29.799	29.871	29.834	29.841	29.846	29.868	29.846

(e) AVERAGE MONTHLY MEAN RAINFALL AT COLOMBO.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
38	3.56	2.11	4.60	10.66	11.77	8.00	4.62	3.60	5.91	14.70	12.37	5.65	86.65

(f) MONTHLY MEAN RAINFALL AT COLOMBO, DURING 1907.

Years	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
1907	0.83	3.85	1.06	6.16	5.47	6.45	8.71	1.76	3.35	14.73	16.96	1.29	70.62

4. **Topography.**—The following information contained in Mr. Mansergh's Report of 1897, indicates the main points in regard to the topography of Colombo :—

Colombo is situated in 6° 56' North Latitude, and 79° 49' East Longitude. The extreme length of the town is seven miles and the extreme breadth is 2 $\frac{3}{4}$ miles. The average breadth is about 2 $\frac{1}{4}$ miles. It stands upon a plain having all its edges practically at sea level, but with numbers of knolls or elevated spots scattered irregularly over it. The present Municipal boundaries are almost exactly 20 miles in length and are bordered as follows :—5 $\frac{1}{2}$ miles are bordered by the sea, 2 $\frac{1}{2}$ miles by the Harbour, 3 $\frac{1}{2}$ miles by the river, 2 $\frac{3}{4}$ miles by swamps, 4 miles by mainland, 1 $\frac{1}{2}$ miles by the San Sebastian Canal and $\frac{1}{2}$ of a mile by the Kirilapane Canal.

These boundaries enclose an area of 6,463 acres or 10 $\frac{1}{10}$ square miles, of which only 4,688 acres are available for building purposes, 1,261 acres or about one-fifth of the total being covered with water.

The lake which is situated near the middle of the town occupied in 1897, 416 acres, which area is however being steadily reduced by reclamation.

The acreage of the town at different heights above mean sea level is shown in the following table :—

TABLE II.

ACERAGE AT DIFFERENT HEIGHTS ABOVE MEAN SEA LEVEL.

Up to	BETWEEN CONTOURS.																
	4	6	8	10	12	14	16	18	20	30	40	50	60	70	80	90	
4	6	8	10	12	14	16	18	20	30	40	50	60	70	80	90	100	
Acres.	953	296	297	447	455	406	430	421	510	667	297	134	87	43	12	6	2

1,993 acres or nearly 31 per cent of the total are thus below the 10 feet contour, while only 581 acres or 9 per cent lie at greater altitudes than 30 feet above mean sea level.

A large part of Colombo is thus lowlying, and difficult to drain, and in the present absence of sewers many of the houses are situated upon damp ground which is a point of great importance in connection with the very high mortality here from Phthisis.

It has been shown by Dr. Bowditch in America, and by Dr. Buchanan in England, that there is an intimate connection between moisture of soil and destructive diseases of the lungs, *e.g.*, Phthisis, and that this disease becomes much less fatal after towns have been sewered and the soil consequently drained. Where the drying of the subsoil was considerable as the result of sewerage, the deaths from Phthisis were found to be reduced by a third or even by a half of what they had previously been.

It is therefore probable that when the sewerage of the town now in hand has been completed and has had time to get into full working order, a marked reduction will be effected in the present exceedingly high Phthisis mortality here. Pending the completion of this work much good might be effected by the paving of dwellings, back-yards, and lanes, and this has been provided for in the proposed new laws.

Paving should also have a beneficial effect in reducing the high mortality from Diarrhoeal diseases as it will protect the inhabitants from the evil effects of exposure to emanations from the sewage polluted soil. This should also have an effect in reducing the Infant mortality.

5. **Population.**—The following table shows the area and estimated population in each Ward in 1907, and the density per acre of the area available for building purposes :—

TABLE III.

WARD.	Total area.	Net available area.	Estimated Population 1907.	Density per acre of available area.
Fort	220	112	2285	20'4
Pettah	92	67	7561	112'8
San Sebastian	116	108	10303	95'4
St. Paul's	143	135	23104	171'1
Kotahena	1649	1056	37083	35'1
New Bazaar	289	226	19536	86'4
Maradana	1297	1025	35468	34'6
Slave Island	313	304	19311	63'5
Colpetty	1928	1655	22073	13'4
The Lake	416	—	—	—
Total	6463	4688	176724	37'69

6. **Development of the town.**—The older parts of the town are now almost completely built over, and the tide of increasing population appears to be setting more and more outwards, especially towards Colpetty and the Southern suburbs, as shown by the large number of new buildings which have been and are being erected there. It is unfortunate that this development has not been carried out in many instances on sanitary lines, and it is hoped that the proposed new laws in regard to buildings will improve matters in this respect, in so far as the area within the town limits is concerned; but it is also most important that the development of the rapidly growing suburbs should be placed under proper control.

It is therefore essential that the existing unbuilt upon land not only within the town but in the adjoining suburbs should be mapped out with streets and scavenging lanes and open spaces, which should be reserved for these purposes, and building thereon should be prohibited. Unless this is done untold mischief will result and a condition of affairs will arise which will require many years and cost vast sums of money to rectify. The Church Yard Lane and other street widenings afford a good example of what delay in these matters costs.

Section II.

Vital Statistics.

7. **Births.**—The number of births registered in Colombo during 1907, was 4,280, giving a birth-rate of 24'2 per 1,000 persons living per annum which is above the average for the previous 10 years. The birth-rate since 1897, has been as follows (*vide* Registrar-General's Reports) :—

TABLE IV.

(a) COLOMBO AND CEYLON BIRTH-RATES.

Period.	Birth-rate per 1,000 living.	
	Colombo.	Ceylon.
1897	18'8	37'7
1898	21'6	38'8
1899	24'1	38'5
1900	21'9	38'6
1901	20'6	37'5
1902	23'0	38'5
1903	21'8	40'0
1904	22'0	38'5
1905	23'1	38'7
1906	27'3	35'7
Average 1897-1906	22'4	38'2
1907	24'2	—

The following table shows the average birth-rate in the various Wards in Colombo during the 10 years 1897-1906 and in the year 1907 :—

TABLE V.

(b) WARD BIRTH-RATES.

WARD.	Birth-rate per 1,000 living.	
	1897-1906.	1907.
Fort	4'4	4'3
Pettah	7'4	6'2
San Sebastian	20'9	20'7
St. Paul's	17'1	16'5
Kotahena	19'3	21'3
New Bazaar	24'9	22'7
Maradana	22'3	22'5
Slave Island	21'7	24'4
Colpetty	18'3	16'9
* Colombo Town	22'4	24'2

* The Colombo town rates include births in the Hospitals.

The following table shows the average birth-rate per 1,000 of each race living, during the 10 years 1897-1906 and in the year 1907, (*vide* Registrar-General's Reports):—

TABLE VI.

(c) RACIAL BIRTH-RATES.

RACE.	Birth-rate per 1,000 living.	
	1897-1906.	1907.
Europeans	... 29.7	... 31.7
Burghers	... 30.4	... 29.6
Sinhalese	... 27.6	... 31.7
Tamils	... 11.5	... 12.6
Moors	... 21.4	... 20.3
Malays	... 25.2	... 30.2
Others	... 11.3	... 11.4
All Races	... 22.4	... 24.2

All the rates are thus above the average except the Burgher and Moor rates. The Malays and the Sinhalese show the greatest increase.

8. **Deaths.**—The number of deaths which occurred in Colombo in 1907 was 5747 giving a rate of 32.5 per 1,000 persons living, which is below the average of the previous 10 years. The death-rate in Colombo and in Ceylon in each year since 1897 is shown in the following table, (*vide* Registrar-General's Report):—

TABLE VII.

(a) COLOMBO AND CEYLON, DEATH-RATES, ALL CAUSES, ALL RACES.

Period.	Death-rate. All causes per 1,000 living.	
	Colombo.	Ceylon.
1897	... 34.6	... 23.7
1898	... 32.1	... 26.6
1899	... 29.8	... 30.6
1900	... 34.2	... 28.7
1901	... 34.7	... 27.6
1902	... 33.5	... 27.5
1903	... 34.8	... 25.9
1904	... 30.4	... 24.9
1905	... 34.7	... 27.7
1906	... 39.8	... 34.3
1897-1906	... 33.8	... 27.7
1907	... 32.5	...

It will be seen from the above, particularly if reference be made to diagram I. in my Report No. 384 of 12th November, 1907, that the general inclination of the death-rate is an upward one, with a phenomenal rise in 1906.

In 1907 on the other hand the rate fell below the average, but unless matters improve it will be probably high again in 1908.

The principal cause of this rise is as shown later the steady increase in the mortality from Pulmonary and Diarrhoeal diseases, chief amongst which being Phthisis.

TABLE VIII.

(b) WARD DEATH-RATES (ALL CAUSES).

WARD.	Death-rates per 1,000 living.	
	1897-1906.	1907.
Fort	... 15.8	... 11.8
Pettah	... 14.2	... 12.4
San Sebastian...	... 26.2	... 25.3
St. Paul's	... 26.3	... 24.1
Kotahena	... 28.1	... 23.3
New Bazaar	... 31.0	... 27.0
Maradana	... 28.2	... 24.2
Slave Island	... 30.1	... 25.1
Colpetty	... 19.8	... 17.6
Colombo	... 33.9	... 32.5

The Colombo rate includes Hospital deaths many of which are persons from outside the town and whose deaths do not therefore properly belong to Colombo. As explained in paras. 108-122 of my Report No. 384 of 1907, these Ward death-rates are practically worthless as a means of comparing one Ward with another owing chiefly to (a) the great and unequal fluctuations which occur in the Ward populations, as the result of emigration and immigration (b) differences in the age and sex constitution of the various races (c) smallness of the population in some of the Wards and (d) the large number of deaths of Ward residents which occur in and are registered against the Hospitals, and are so lost to their Wards.

In 1907 for instance 1,665 deaths or 28.9 per cent. of the total deaths in Colombo occurred in, and were returned against the Hospitals, and as some Wards contribute relatively more patients to the Hospitals than others, the error is greater in the rates of some Wards than of others. Upon referring this matter to the Hospital authorities I was informed that although the greatest trouble is taken to ascertain the home addresses of the patients on admission to the Hospitals, it was not possible in a great many cases to get correct information, as the patients, chiefly poor Sinhalese and Malabars, often did not know the name of the street and seldom the number of the premises from which they had come.

The Ward, the rate of which is probably most affected by these deaths in Hospitals is as explained in paragraphs 113-116 in my Report No. 384 of 1907, the St. Paul's Ward, the rate for which shewn in the table above is certainly too low.

TABLE IX.

(c) RACIAL DEATH-RATES (ALL CAUSES).

RACE.	Death-rate for each race per 1,000 living.	
	1897-1906.	1907.
Europeans ...	30.2	25.3
Burghers ...	26.7	23.0
Sinhalese ...	35.6	34.7
Tamils ...	35.9	32.2
Moors ...	32.3	31.2
Malays ...	35.2	35.5
Others ...	32.9	30.5
All races	33.8	32.5

These rates are not quite reliable as a means of comparing one race with another owing to various disturbing factors, the chief of which are, as explained in paragraphs 89-100 of my Report No. 384 of 1907, difference in respect of (a) migration (b) age and sex distribution and (c) the smallness of the population of certain of the races. These rates like the Ward rates are reliable only as a means of comparing the rate of the same race at different periods of time, and even in this respect those races which, like the Europeans, Malays, and Others, have a small population, and those which like the Tamils and Europeans are subject to migration, must be accepted with caution.

For the fuller consideration of the question of the relative value of the Racial and Ward death-rates reference is requested to my Report No. 384 of 12th November, 1907.

The details of the birth and death-rates are shown in the tables in the appendix.

9. **Infant mortality.**—There were 1,300 deaths of children under one year of age in 1907, being in the proportion of 304 per 1,000 births. This although a trifle above the record low rate of 1906 is a great improvement on the average for the previous 10 years, viz:—377.

The table below shows the distribution of the Infant Mortality by Wards since 1897. The distribution by races is unfortunately not available. This is an important matter to which I referred in my Report No. 384 of 12th November, 1907, on the Sanitation of Colombo.

TABLE X.

INFANT MORTALITY 1897 TO 1907—RATE PER 1,000 BIRTHS (BY WARDS).

Year.	Colombo Town.	Fort and Galle Face	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana Hospitals.	Moradana exclusive of Hospitals.	Slave Island.	Colpetty.
1897	498	400	925	411	816	418	636	115	599	705	281
1898	375	308	500	385	472	408	415	136	366	494	244
1899	328	—	200	345	372	353	351	197	313	391	242
1900	395	143	448	385	492	510	387	—	345	507	281
1901	389	—	364	480	462	508	431	285	339	426	211
1902	360	—	426	429	509	417	422	—	310	399	271
1903	410	273	630	384	481	518	468	247	361	432	333
1904	353	154	419	408	482	382	452	—	336	454	232
1905	361	666	481	461	559	381	461	147	353	458	251
1906	302	76	328	418	337	310	357	210	287	311	276
Average 1897-1906	377	202	472	411	498	420	438	134	362	458	262
			2	6	1	5	4		7	3	8
1907	304	100	298	367	431	289	395	204	296	325	251

The Infant mortality rate is as the table above shows the most satisfactory of all the death-rates.

It will be seen that all the Wards show an improvement compared with the average. The Wards which show the greatest improvement (excluding Pettah which is not comparable) are Slave Island and Kotahena, while the Ward which shows the least improvement is Colpetty. I have in a previous report drawn attention to this peculiarity in the Colpetty Ward, and I attribute it mainly to the influx of large numbers of the poorer classes into this Ward owing to the lack of accommodation in the older parts of the City. The health standard of this Ward is undoubtedly being lowered owing to the erection of a large number of new buildings upon land where there are at present no facilities for the disposal of the rapidly increasing amount of sewage created. Not only is this the case but many of these dwellings for the poorer classes have been erected irrespective of the requirements of air space, access for scavenging, and such like.

It is the old trouble of lack of control over the erection of new buildings. It is hoped the proposed new laws will be passed in time to put a check upon this before the mischief has gone too far to admit of a remedy.

The following table shows the mortality from the various groups of diseases, the details of which are shown in the Table XLVIII. in the appendix :—

TABLE XI.

10. **Mortality in the Town of Colombo from groups of diseases** in 1906 and 1907, and the average for 1900 to 1906.

CAUSES OF DEATHS.	Total Deaths.			Mortality per 1,000 living.		
	Average 1900 to 1906.	1906.	1907.	Average 1900 to 1906.	1906.	1907.
ALL CAUSES.	5668	6890	5747	34.61	39.80	32.52
Zymotic Diseases	1673	2108	1426	10.23	12.17	8.07
Parasitic Diseases	176	205	182	1.07	1.19	1.03
Dietetic Diseases	8	8	46	.05	0.05	0.26
Constitutional Diseases	700	869	829	4.27	5.02	4.69
Developmental Diseases	344	349	365	2.11	2.02	2.07
Local Disease	2177	2547	2261	13.28	14.70	12.79
Violence	97	125	112	.60	0.72	0.63
Ill-defined and not specified causes	493	679	526	3.00	3.92	2.98

Principal Causes of Deaths.

The following table shows the principal causes of deaths by groups of diseases since 1897, in all races, at all ages :—

TABLE XII.

PRINCIPAL GROUPS OF DISEASES 1897-1907.

YEAR.	Rate per 1,000 living.		
	Pulmonary.	Diarrhoeal.	Fevers.
1897	5.41	4.69	3.75
1898	5.87	5.13	3.59
1899	5.48	5.05	3.22
1900	6.65	6.12	3.17
1901	8.45	6.55	2.92
1902	7.21	6.69	2.76
1903	7.51	6.83	3.05
1904	7.54	5.43	2.16
1905	8.39	7.07	2.07
1906	9.36	8.10	3.39
Average 1907-1906	7.17	6.17	3.01
1907	8.35	5.07	2.59
Increase or Decrease	+1.18	-1.10	-0.40

The chief points about the above table are (1) the deadly steadiness of the increase in the mortality from Pulmonary diseases, (2) the almost as marked increase in Diarrhoeal diseases up till 1906 after which the mortality suddenly dropped from the highest to the third lowest on record, and (3) the progressive decrease in the mortality from 'Fevers' marred by a slight increase in 1903 and a more marked increase in 1906. Even the abnormal year of 1906, does not however show a very great rise in the Fever mortality. These various points are considered later in detail under their various headings.

The following table shows the mortality at all ages in all races from the principal diseases in 1907, compared with the average for the period 1897-1906, expressed as a rate per 1,000 of the population, and arranged in their order of importance as indicated by the average during the period 1897-1906 :—

TABLE XIII.

11. (a) Principal causes of deaths, all races, all ages.

DISEASES.	Rate per 1,000 living.		
	1897-1906.	1907.	Increase or Decrease.
Diarrhoeal and Enteritis ...	3.67	3.34	-0.26
Infantile Convulsions ...	3.10	2.58	-0.52
Phthisis ...	3.09	4.00	+0.91
Ill-defined and unspecified ...	2.85	2.98	+0.13
Pneumonia ...	2.70	3.29	+0.59
Dysentery ...	2.47	1.73	-0.74
Bronchitis ...	1.06	1.06	Nil
Remittent Fever ...	1.12	0.61	-0.51
Simple Continued Fever ...	1.05	0.27	-0.78
Tetanus ...	1.02	0.96	-0.06
Enteric and suspected Enteric ...	0.75	1.70	+0.95
Ankylostomiasis ...	0.40	0.34	-0.06
Intermittent Fever ...	0.03	0.00	-0.03

The above table shows an increase in 1907, compared with the average of the previous 10 years in the mortality from Phthisis, Ill-defined diseases, Pneumonia, and Enteric. The apparent increase in Enteric must however be considered in conjunction with the decrease in the other Fevers, viz: Remittent Fever, Simple Continued Fever, and Intermittent Fever. This point is considered more fully in my Report dealing with "Fevers in Colombo." The increase in Phthisis and Pneumonia, is undoubtedly genuine and is a most serious matter, as will be seen by a reference to the section on Pulmonary Diseases. The increase in Ill-defined diseases although slight, is unsatisfactory.

(b) PRINCIPAL CAUSES OF DEATHS IN EACH RACE.

Before going on to the consideration of this question I wish to emphasise the fact that the rates given in Table XIV. below are expressed as a percentage of the total deaths in each race, and not as a rate on the population, and must not therefore be employed for the purpose of comparing the mortality in one race with that of another race, or even for comparing the same race at different periods of time, or in different localities. Nor must these rates be utilised for comparing the health in one part of the town with that in another. In each case the same fallacy would be involved, viz:— "a relationship is attempted to be established between two factors both of which are variable in value." These percentage of total deaths-rates are employed in this report solely for the purpose of estimating the relative magnitude of the different causes of deaths in each race.

The following illustration will make this point clear. Table XIV. shows that in 1907 the disease which Burghers suffered most from was Phthisis, 13.1 per cent of their total deaths being ascribed to this cause. No other disease was responsible for such a large percentage of the Burgher deaths. That is the most one can say on the authority of this rate. If we were to go further and compare the Burgher rate with the Sinhalese rate for instance we should at once fall into an error, for only 13.0 per cent of the total Sinhalese deaths were due to Phthisis, and yet the Sinhalese suffered much more from Phthisis than did the Burghers in proportion to their population, for whereas 4.53 per 1,000 of the Sinhalese population died of Phthisis only 3.01 per 1,000 of the Burgher population died of this disease. The Sinhalese therefore suffer more from Phthisis than the Burghers do. The explanation of course is that more Sinhalese died of "diseases other than Phthisis" than was the case with Burghers, the Burgher death-rate from "all causes" being much lower than in the case of the Sinhalese.

The following table shows the principal causes of deaths in each race in 1907:—

TABLE XIV.

PRINCIPAL CAUSES OF DEATHS IN EACH RACE IN 1907.

Expressed as a percentage of total deaths in each race.

DISEASE.	Euro-peans.	Bur-ghers.	Sin-halese.	Tamils.	Moors.	Malays	Others
Typhoid Fever ...	13.3	7.9	6.2	2.3	4.2	3.7	4.7
Simple Continued Fever ...	0.0	1.0	0.7	0.6	0.9	4.2	9.5
Remittent Fever ...	1.3	1.6	1.8	1.9	2.0	1.6	3.6
Total Fevers ...	14.6	10.5	8.7	4.8	7.1	9.5	8.8
Diarrhoea ...	9.4	6.5	6.6	15.3	7.1	2.6	6.8
Dysentery ...	10.7	5.8	3.9	8.3	4.1	4.2	7.3
Enteritis ...	2.6	2.1	2.1	0.9	1.2	0.0	0.0
Total Diarrhoeal ...	22.7	14.4	12.6	24.5	12.4	6.8	14.1
Phthisis ...	4.0	13.1	13.0	10.2	12.6	15.3	15.6
Bronchitis ...	0.0	2.1	3.0	3.1	5.1	3.2	2.1
Pneumonia ...	2.6	9.3	9.2	12.0	10.5	8.0	14.1
Total Pulmonary ...	6.6	24.5	25.2	25.3	28.2	26.5	31.8

The chief causes of deaths in each race in 1907, therefore were as follows :—

Europeans.—Fever occupies an important position, and amongst individual diseases Typhoid Fever easily heads the list, followed by Dysentery, and Diarrhoea in all of which the primary seat of infection is the intestinal tract. Phthisis and Pulmonary diseases generally cause a very small proportion or the mortality amongst Europeans.

Burghers.—Pulmonary diseases occupy the most prominent position as a cause of deaths amongst Burghers, and chief amongst these is as usual Phthisis. They also suffer somewhat severely from "Fever" chiefly Typhoid.

Sinhalese.—Here again Pulmonary diseases occupy the chief place, amongst which Phthisis easily heads the list, followed by Pneumonia. Fevers occupy a relatively minor position.

Tamils.—Diarrhoea is the principal cause of deaths amongst the Tamils; but Pneumonia and Phthisis are also responsible for a very large proportion of the total Tamil deaths. Fevers occupy quite a secondary position.

Moors.—Phthisis again heads the list followed by Pneumonia. The preponderance of Pulmonary diseases is very marked in the case of Moors. Fevers again occupy a secondary position.

Malays.—Phthisis is by far the most important cause of deaths amongst Malays, while only a small proportion of their deaths are ascribed to Diarrhoeal diseases. Their Fever rates are interesting and reference is requested on this point to my Special Report on Fevers.

Others.—Phthisis and Pneumonia run each other close for first place, and are a very important cause of deaths amongst this class of the population.

Section III.

Notifiable Infectious Diseases.

The following Infectious Diseases are notifiable under the Plague Regulations, viz. :—Plague, Cholera, Small-pox, Chicken-pox, Measles, Scarlet Fever, Diphtheria, Acute or Choleraic Diarrhoea, Typhoid or Enteric Fever, and Simple Continued Fever of over seven days duration.

The incidence of these diseases as shown by the notifications, the case rates per 1,000 living, and the number of deaths as shown by the Registrar-General's death returns are given in the following table :—

TABLE XV.

CASES OF INFECTIOUS DISEASES REPORTED DURING EACH MONTH OF THE YEAR, 1907, EXCLUSIVE OF THOSE REPORTED FROM THE PORT.

DISEASE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total cases.	Case rate per 1,000 living.	Deaths.
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	0·00	—
Cholera	22	3	1	—	—	1	—	—	—	—	1	—	28	0·16	19
Small-pox	—	2	—	—	—	1	5	6	15	9	9	1	49	0·28	8
Chicken-pox	18	33	23	63	19	5	3	7	20	23	21	21	256	1·45	12
Measles	4	4	1	9	2	2	2	11	5	3	7	21	72	0·40	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	0·00	—
Diphtheria	1	—	1	1	2	—	—	3	2	—	2	1	13	0·07	4
Acute Diarrhoea	3	—	1	1	—	—	3	2	2	—	—	1	13	0·07	7
Typhoid Fever	140	92	76	78	100	60	84	71	45	46	51	32	†875	4·95	285
Suspected Enteric Fever	6	2	—	2	13	11	3	4	6	2	5	2	56	0·31	15
Simple Conted Fever	8	9	3	4	13	5	3	15	13	18	22	8	121	0·68	49

* Acute Diarrhoea is not as a rule differentiated in the death returns, from 'Diarrhoea.'

† The above table includes 134 cases of Typhoid fever reported to have come from outside Colombo, leaving 741 cases from Colombo or a case rate of 4·19 per 1,000.

The number of cases reported from the Port and which are not included in the above table was as follows :—

Cases reported from the Port in 1907.

Cholera	...	...	1
Small-pox	...	...	10
Chicken-pox	...	...	3
Measles	...	...	2
Scarlet Fever	...	...	1
Typhoid Fever	...	...	15

12. **Plague and capture of rats.**—As hitherto the town has been fortunate in having had no case of Plague.

Preventive measures have nevertheless been carried out. The campaign against rats has been continued, and the statement below shows the number captured and destroyed during the year.

TABLE XVI.

RATS CAPTURED AND DESTROYED DURING 1907.

1st Quarter	...	11,653
2nd Quarter	...	11,957
3rd Quarter	...	15,314
4th Quarter	...	16,765
Total	...	55,689

13. **Small-pox and Vaccination.**—(a) *Small-pox.*—The statistics in regard to Small-pox are shown in the tables below.

There were 59 cases and 8 deaths reported during 1907. Of the 59 cases however 10 were from the Port and do not therefore really belong to Colombo. The case rate reckoned upon the 49 Colombo cases was 0.27 per 1,000 and the death-rate reckoned upon the total deaths from this cause was 0.04, 13.6 per cent of the 59 cases proved fatal.

TABLE XVII.

SMALL-POX DEATHS, 1897-1907.

Year.	Deaths	Death-rate per 1,000 living.	Year.	Deaths	Death-rate per 1,000 living.
1897	0	0.000	1902	27	0.169
1898	3	0.019	1903	1	0.006
1899	16	0.096	1904	1	0.006
1900	9	0.058	1905	17	0.101
1901	29	0.185	1906	11	0.064
			1897-1907	11.4	0.070
			1907	8	

During the years 1903-1907 in respect of which there are complete records of cases notified, the number of cases reported has been as follows—

TABLE XVIII.

SMALL-POX CASES, 1903-1907.

Year.	Cases notified from Town.	Cases notified from the Port not included in case rate.	Case rate per 1,000 persons living.
1903	7	6	0.04
1904	1	3	0.006
1905	45	9	0.25
1906	40	26	0.23
1907	49	10	0.28

The incidence of the cases notified in each month of the year is shown in Table XV.

There were three distinct importations of infection during the year traced to India. This is the usual source of outbreaks of Small-pox, which is not endemic in Colombo. The first importation occurred in February and consisted of two cases which were discovered in time to prevent any spread of the infection.

The second importation occurred in the 2nd half of the year and was unfortunately accompanied by an unusual amount of concealment, and consequently resulted in the occurrence of a series of cases scattered throughout the town and extending over a considerable period of time.

The third known importation occurred in December and did not result in any further cases.

Of the 49 cases reported, 40 occurred in the town, 6 contacts developed the disease in the Segregation Camp, and 3 cases were reported from rural districts outside the town, the infection in which was traced to Colombo. It is a noteworthy fact that of the 40 cases from the town only one was reported by a private Medical Practitioner, while 15 were detected by the Sanitary Inspectors, 10 by the Police, 2 by Registrars of Deaths, 1 by the Chief Vaccinator, 5 were reported by householders, and 6 voluntarily sought admission to the Hospital with the eruption on them.

These 40 cases were scattered over 29 houses, in 19 streets.

It will be realised from these facts that it is no easy matter to control this diseases once the infection gets abroad, and it is I think fortunate that only 3 cases in all escaped into the adjoining rural districts where they were detected.

5 prosecutions were entered for concealing cases of Small-pox, 3 of whom were convicted, 1 was acquitted and the other was pending as the accused could not be found. One of the cases who escaped into the adjoining country district was also reported to have been prosecuted and convicted, evidence having been supplied by this Department. 194 contacts in all were segregated in connection with this disease at a cost for victualling of Rs. 1,180.36.

The chief obstacle in the way of preventing the importation of Small-pox from other countries is its long incubation period which averages about 12 days, and is sometimes as long as 18 days or even longer. The only way to ensure detection of imported cases, short of imposing a period of quarantine for all arrivals (which would greatly interfere with commerce, and is therefore undesirable, would be to require every arrival to report himself daily to the Port Surgeon or the Medical Officer of the district to which he goes, for a period of 18 days from the date of leaving the last Port outside Ceylon. This might I think be done especially with regard to Indian Ports, as Small-pox is I believe endemic in India, and we are thus constantly exposed to these importations of infection. I recommend that the matter be represented to Government.

(b) VACCINATION.

The following table shows the number of primary vaccinations and the number of births during each of the last 5 years :—

TABLE XIX.
VACCINATION.

Year	Births.	Primary Vaccinations.	Excess of primary vaccinations over births.
1903	3552	10063	6511
1904	3670	10652	6982
1905	3916	10330	6414
1906	4726	9547	4821
1907	4280	11864	7584
Total.	20144	52456	32312

5 | 52456
10,491

A large number of the primary vaccinations are I am informed immigrants from India, adults as well as children, hence the preponderance of primary vaccinations over births.

The details of the vaccination in 1907, are shown in the following table supplied by the Provincial Surgeon, Western Province :—

TABLE XX.
VACCINATION, 1907.

WARD.	Primary Vaccinations.	Revaccinations.	Total.
Fort, Galle Face, Pettah and San Sebastian	1278	198	1476
St. Paul's	1860	1079	2939
Kotahena	1783	756	2548
New Bazaar	1695	1057	2752
Maradana	1751	530	2281
Slave Island	1560	848	2408
Colpetty	989	553	1542
Itinerating (Colombo)	948	592	1540
TOTAL	11864	5622	17486

14. **Cholera.**—There were 29 cases of Cholera reported during the year, of these one was from the Port and one from outside limits. In 17 of the town cases a Bacteriological examination was made and reported as positive.

There were 19 deaths giving a case mortality of 65.5 per cent and a death-rate of 0.1 per 1,000 living.

TABLE XXI.
CHOLERA DEATH-RATES.

Year.	Deaths	Death-rate per 1,000 living.	Year.	Deaths	Death-rate per 1,000 living.
1897	56	0.347	1902	2	0.012
1898	6	0.038	1903	—	0.000
1899	—	0.000	1904	1	0.006
1900	—	0.000	1905	—	0.000
1901	—	0.000	1906	2	0.011
			Average.	6.8	0.041
			1907	19	0.108

The number of cases notified during each of the last 5 years has been as follows :—

TABLE XXII.
CHOLERA IN COLOMBO.

Year.	Cases notified.	Case rate per 1,000 living.	Outside and Port cases not included in case rate.
1903	1	0'006	—
1904	1	0'006	3
1905	—	0'000	—
1906	1	0'006	3
1907	29	0'156	2

The monthly incidence of cases of Acute Diarrhœa and Cholera notified during 1906 and 1907, is shown in the table below :—

TABLE XXIII.
ACUTE DIARRHŒA AND CHOLERA—CASES, 1906 AND 1907.

1906.			1907.		
Month.	Acute Diarrhœa.	Cholera.	Month.	Acute Diarrhœa.	Cholera.
January ...	—	—	January ...	3	22
February ...	—	—	February ...	—	3
March ...	—	—	March ...	1	1
April ...	—	—	April ...	1	—
May ...	1	—	May ...	—	—
June ...	1	—	June ...	—	2
July ...	—	—	July ...	3	—
August ...	—	—	August ...	2	—
September ...	—	—	September ...	2	—
October ...	—	1	October ...	—	—
November ...	6	—	November ...	—	1
December ...	4	—	December ...	1	—

The foregoing is of interest as it shews that the sudden outbreak of Cholera in January of 1907, was immediately preceded by an unusual incidence of cases of Acute Diarrhœa, which is not at all an unusual sequence.

The origin of these cases of Cholera and Acute Diarrhœa was not definitely traced, but the evidence pointed to the importation from India of contaminated food stuffs. Fish imported as manure would appear to be particularly open to suspicion as cases have been known where this filth has found its way into the food market and has been eaten. It appears that the importation of this stuff cannot be prohibited owing to its great value as a manure; but I believe if its importation were prohibited except when in a pulverised condition a great deal of the risk involved would be obviated. It appears unlikely that if it were reduced to a powder as has to be done in any case I believe before it is used as manure the temptation to use it as food would disappear.

Dr. Craib the Provincial Surgeon, Western Province, informs me that by adopting this means an outbreak upon some Tea estates several years ago was stopped. I suggest that Government be approached in the matter, since it appears that there is no other way of dealing with this fish manure so that it will not be liable to be eaten by the lower classes, if they can get a hold of it. The addition of chemicals either renders it unfit for manure or renders it poisonous which latter would introduce a new element of danger which it is out of the question to risk.

15. **Chicken-pox.**—The number of cases of Chicken-pox notified during each of the last five years is shewn in the following table :—

TABLE XXIV.
CHICKEN-POX, 1903 TO 1907.

Year.	Cases.	Case rate per 1,000 living.	Deaths.
1903	230	1'41	1
1904	274	1'65	—
1905	398	2'34	2
1906	231	1'33	—
1907	259	1'47	2

The chief danger about this disease is its liability to be mistaken for modified Small-pox, or rather *vice versa*.

One cannot view deaths ascribed to uncomplicated Chicken-pox without the gravest suspicion. There is at least one such instance on record where a death certified as due to Chicken-pox was followed immediately afterwards by an outbreak of Small-pox.

16. **Measles.**—The number of cases of Measles notified during each of the last five years, is shown in the following table :—

TABLE XXV.

MEASLES, 1903 TO 1907.

Year.	Cases.	Case rate per 1,000 living.	Deaths.
1903	119	0.72	—
1904	278	1.67	5
1905	397	2.34	16
1906	354	2.04	4
1907	74	0.41	—

There was thus a marked decrease in the prevalence of this disease.

17. **Scarlet Fever.**—The number of cases of Scarlet Fever notified during each of the last five years, is shown in the following table :—

TABLE XXVI.

SCARLET FEVER.

Year.	Cases.	Case rate per 1,000 living.	Deaths.
1903	—	0.000	—
1904	—	0.000	—
1905	2	0.012	—
1906	1	0.006	—
1907	1	0.006	—

This disease does not as a rule thrive in the tropics.

18. **Diphtheria.**—The number of cases of Diphtheria notified during each of the last five years, is shown in the following table :—

TABLE XXVII.

DIPHTHERIA 1903 TO 1907.

Year.	Cases.	Case rate per 1,000 living.	Deaths
1903	—	0.00	—
1904	6	0.03	4
1905	2	0.01	—
1906	10	0.05	1
1907	13	0.07	4

There would appear from the above to be an increase in the amount of Diphtheria; but it must be remembered in this connection that notification of all Infectious Diseases is steadily improving.

Whether this accounts for the increase or not I cannot say. I think it is probable that there are and always have been more cases of Diphtheria than the returns show.

The proportion of deaths to cases during the last four years to my mind indicates improved diagnosis and notification rather than an increase of cases. Bacteriological confirmation is rarely resorted to in cases of sore throat occurring in general practice. Of course it may be that there has been a genuine increase in the number of cases. A case mortality of 30 per cent as in 1907, is probably nearer the truth than one of 67 in 1904, which would mean that a number of cases in 1904 escaped notification. The numbers of cases are however altogether too small to form a reliable basis for conjecture. Whatever the facts may be as regard the actual number of cases this disease cannot at present be considered of much consequence as a cause of deaths in Colombo, otherwise the death returns if not the notifications, should show it. The death-rate per 1,000 in 1907, was only 0.02.

19. **Fevers.**—Under this heading are included, Typhoid or Enteric Fever, Simple Continued Fever of over seven days duration, Remittent Fever and Intermittent Fever.

See Special Report No. 257 of 28th July, 1908.

20. **Diarrhoeal Diseases.**—Under this heading are included Dysentery, Diarrhoea and Enteritis. Diarrhoeal diseases are most important cause of deaths in Colombo particularly amongst certain races as Tables XIV. and XXIX. show.

They were responsible in 1907, for 24.5 per cent. of the total Tamil deaths, and 22.7 per cent. of the total European deaths, and they caused during the 10 years 1897 to 1906, an average death-rate amongst the total population of 6.17 per 1,000 living.

The following table shows the mortality during the years, 1897–1907 :—

TABLE XXVIII.
DIARRHOEAL DISEASES, 1897-1907, ALL RACES. DEATH-RATE PER 1,000 LIVING.

Year.	Dysentery.	Diarrhoea and Enteritis.	Total Diarrhoeal.
1897	2.59	2.15	4.69
1898	2.86	2.26	5.13
1899	2.12	2.93	5.05
1900	2.40	3.70	6.12
1901	2.16	4.38	6.55
1902	2.32	4.37	6.69
1903	2.79	4.20	6.83
1904	1.88	3.56	5.43
1905	2.75	4.32	7.07
1906	3.31	4.84	8.10
Average.	2.47	3.67	6.17
1907	1.73	3.34	5.07

The distribution of the mortality from the Diarrhoeal group of diseases by race is shown in the following table:—

TABLE XXIX.
DIARRHOEAL DISEASES, 1897-1907. DEATH-RATES PER 1,000 OF EACH RACE LIVING.

Year.	All races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
1897	4.69	4.01	4.12	4.54	6.63	3.42	3.68	4.25
1898	5.13	3.54	3.90	4.80	6.88	4.63	2.15	5.54
1899	5.05	3.49	4.55	5.06	6.64	3.95	1.40	5.75
1900	6.12	4.95	4.50	6.02	9.13	3.81	5.67	5.46
1901	6.55	5.24	3.78	5.47	11.44	4.75	5.29	5.84
1902	6.69	7.36	4.99	6.23	10.13	4.57	3.87	6.98
1903	6.83	9.04	5.73	7.32	8.48	5.18	6.27	5.27
1904	5.43	6.04	4.97	5.81	5.19	4.65	6.92	5.75
1905	7.07	5.24	6.04	7.62	8.18	5.24	5.55	5.99
1906	8.10	7.22	5.58	8.05	11.10	5.76	5.21	7.19
(b) Average 1897-1906.	6.17	5.61	4.81	6.09	8.38	4.60	4.60	5.80
(c) 1907	5.07	5.74	3.24	4.39	7.90	3.86	2.41	4.61
(d) Increase or decrease.	-1.10	+0.13	-1.57	-1.70	-0.48	-0.74	-2.19	-1.19

The two preceding tables show that the mortality from Diarrhoeal diseases has risen markedly during the last 11 years. The 1907 rate however showed a marked decline, but it is I think doubtful whether this improvement will be maintained.

There will I believe be no radical improvement in the mortality from these diseases until the soil in the neighbourhood of dwellings has been protected from the great pollution with sewage which has been going on ever since the town was started. The Drainage scheme and the enforcement of the proposed paving laws will it is hoped ultimately effect a great improvement in this respect.

The statistics in regard to Diarrhoeal diseases require to be worked out and analysed much more fully than I have been able to do in the present report.

21. **Pulmonary Diseases.**—Under this heading are included Phthisis Pulmonalis (Consumption) Pneumonia, and Bronchitis.

The following table shows the mortality from each of these during the last 11 years.

TABLE XXX.
PULMONARY DISEASES, 1897-1907, ALL RACES, DEATH-RATE PER 1,000 LIVING.

Year.	Phthisis.	Pneumonia.	Bronchitis.	Combined Pulmonary.
1897	2.38	1.55	1.47	5.41
1898	2.52	1.79	1.55	5.87
1899	2.39	1.94	1.14	5.48
1900	2.72	2.61	1.31	6.65
1901	3.21	3.61	1.60	8.45
1902	3.00	2.88	1.26	7.21
1903	3.22	3.00	1.28	7.51
1904	3.58	2.58	1.38	7.54
1905	3.65	3.32	1.33	8.30
1906	4.19	3.76	1.41	9.36
Average 1897-1906	3.09	2.70	1.37	7.17
1907	4.00	3.29	1.06	8.35

The distribution of the mortality from the Pulmonary group of diseases by race is shown in the following table :—

TABLE XXXI.

PULMONARY DISEASES, 1897-1907, DEATH-RATE PER 1,000 OF EACH RACE LIVING.

Year.	All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
1897	5.41	2.40	5.78	5.50	6.01	4.64	5.65	5.31
1898	5.87	3.15	5.20	6.80	5.27	5.39	4.78	3.78
1899	5.48	4.26	4.98	5.88	5.39	5.19	5.82	4.07
1900	6.65	4.19	6.37	6.47	7.21	6.61	7.48	7.28
1901	8.45	6.73	7.81	9.25	8.16	7.47	6.84	10.81
1902	7.21	2.57	5.07	7.27	8.01	7.34	6.01	8.62
1903	7.51	3.25	5.68	8.06	7.26	7.36	5.65	10.53
1904	7.54	4.98	6.75	8.00	6.36	7.98	8.96	8.88
1905	8.30	3.15	5.74	8.98	7.58	8.56	8.72	10.21
1906	9.36	4.12	7.42	9.87	9.81	8.73	7.72	11.88
Average 1897-1906	7.17	3.88	6.08	7.61	7.11	6.93	6.76	8.14
1907	8.35	1.69	5.60	8.73	8.13	8.79	9.39	9.69

The two foregoing tables show the alarming steadiness of the rise in the mortality from Pulmonary diseases.

The whole question requires the most careful investigation, and cannot be dealt with in this Report. I am very much handicapped in the matter of carrying on investigations of this sort by the lack of trained assistants.

22. **Rabies and seizure of stray dogs.**—Two cases of rabies were reported during the year and the usual measures in the matter of seizure of stray dogs were continued.

The table below shows the number of dogs captured and destroyed during 1907.

The notification of rabies is not upon a satisfactory footing. It will be possible when the proposed Veterinary Department has been formed to deal in a more satisfactory manner with this and other Epizootic diseases.

TABLE XXXII.

NUMBER OF DOGS SEIZED, DESTROYED, &c., DURING THE YEAR, 1907.

	Balance.	Seized.	Redeemed.	Destroyed.	Died in Pound.	Sold by auction.	Sent to the Medical College.
Balance in the Pound at beginning of year	66	—	—	—	—	—	—
Seized during the 1st quarter	—	1165	429	763	16	—	—
Balance at the beginning of 2nd quarter	23	—	—	—	—	—	—
Seized during the quarter	—	1023	382	535	9	3	—
Balance at the beginning of 3rd quarter	117	—	—	—	—	—	—
Seized during the quarter	—	1748	853	983	6	5	4
Balance at the beginning of 4th quarter	114	—	—	—	—	—	—
Seized during the quarter	—	875	290	579	5	2	—
Total	—	4811	1954	2860	36	10	4

Balance at the end of the year 13.

Section IV.

FOOD AND MARKETS.

23. **Food inspection.**—The inspection of food remained on the same unsatisfactory basis as hitherto, the work being carried out as best it could by the Ward Inspectors.

The following statement shows the quantity of food stuffs seized as unfit for human consumption :—

TABLE XXXIII.

FOOD STUFFS SEIZED AS UNFIT FOR HUMAN CONSUMPTION, 1907.

Apples	...	92 and 7½ lbs.
Rotton brinjals	...	13
Potatoes	...	123 lbs.
Mutton cutlets	...	2 lbs.
Plantains	...	14 lbs.
Sweetmeats	...	4 lbs.
Mangoes	...	62
Lemon	...	50 cases.
Beef	...	41½ lbs.
Dry-fish	...	54½ lbs.

Food stuffs condemned at Customs.

Rice	...	186 bags.
Onion	...	740 baskets.
Potatoes	...	188 bags.
Dry-fish	...	33 bundles.
Cured-fish	...	34 bags.
Salted-fish	...	1 cask.

In addition to the above 53½ carcasses, and 736 livers were condemned at the Slaughter-house, while 1395 animals were rejected prior to slaughter as unfit for the food market. (See Table XLI). Of these 1,326 were rejected on the grounds that they were too old and wasted for food purposes.

This work of rejecting old and wasted animals was begun in August, 1905, and it is hoped that it will in time lead to a material improvement in the quality of the meat offered for sale here. It is difficult to get a definite idea of the effect of such a measure, but my own impression is that the quality of the meat in Colombo has improved. I do not see how it can fail to be otherwise with over 1300 animals rejected as too old and wasted for food purposes, all of which would previously have found their way into the markets. The meat is still however of very poor quality owing to the lack of private enterprise in the matter of rearing animals and specially feeding them up for the Meat Market.

Fish.—One of the greatest problems in regard to the food supply in Colombo is that of the dry and salted fish sale. The most repulsive looking stuff finds a ready market, hence there is a great temptation to offer inferior fish for sale. Cases are known where even fish imported as manure has been sorted out and eaten, and in one instance a fish dealer was actually caught with a bag of fish manure in his boutique. Needless to say he was punished.

It is difficult to control the fish market under such circumstances and it is utterly impossible unless we have a special staff who can devote their whole time to the work of food inspection.

24. **Analytical work.**—This is done by the City Analyst and the Government Bacteriologist, the City Analyst being paid a fixed annual salary, while the Bacteriologist is paid a fee for every sample examined.

This latter is a most costly and unsatisfactory arrangement upon which I have previously reported.

580 mixed samples were sent to the City Analyst with the results shown in the statement below :—

TABLE XXXIV.

ANALYSES MADE BY CITY ANALYST IN 1907.

Nature of Samples.	No. of samples sent to analyst.	No. condemned	Passed.	No. reported as suspicious.	No. on which reports not received.
Town water	135	—	135	—	—
Well water	213	186	22	5	—
Aerated water	16	6	10	—	—
Milk	89	65	24	—	—
Air	1	1	—	—	—
Beer	4	—	2	—	2
Porter	2	—	2	—	—
Flour	36	—	32	—	4
Bread	27	—	27	—	—
Sugar	16	—	15	—	1
Sherbet	5	—	5	—	—
Arrack	15	—	4	—	11
Whisky	6	—	1	—	5
Brandy	5	—	1	—	4
Wine	1	—	1	—	—
Schnapp Gin	3	—	1	—	2
Unsweetened Gin	2	—	1	—	1
Key Gin	4	—	1	—	3
	580	258	284	5	33

The results of the Bacteriological examination of the town water are shown in the following table :—

TABLE XXXV.
BACTERIOLOGICAL EXAMINATION OF TOWN WATER, 1907, BY DIRECTOR
BACTERIOLOGICAL INSTITUTE.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
No. of bacteria per c.c., (agar plate) ...	422	402	308	340
No. of bacteri per c.c., (gelatine plate) ...	nil	absent	320	360
Bacillus Coli ...	absent	absent	absent	absent
B. Enterides Sporogenes ...	absent	absent	absent	absent
B. Typhosus ...	absent	absent	absent	absent
Cholera Vibreo ...	absent	absent	absent	absent
Streptococci ...	absent	absent	absent	absent
Germs liquifying gelatine ...	9 per cent	7 per cent	5 per cent	nil

Special sample taken on 21st August, 1907.

No. of bacteria per c.c., of water (agar plate) ...	356
No. of bacteria per c.c., of water (gelatine plate) ...	320
Bacillus coli ...	absent
Bacillus enterides sporogenes ...	absent
Streptococci ...	absent
Germs liquifying gelatine ...	8 %

(a) **Town water.**—135 samples of town water were taken to the City Analyst, all of which were passed as fit for consumption. No Pathogenic Bacteria were found in the five samples examined by the Bacteriologist. While this is satisfactory so far as it goes, many more samples should be examined Bacteriologically, but the cost under the present arrangement is prohibitive. I have received many complaints as to the inadequacy of the supply.

(b) **Wells.**—Of 213 samples only 22 were passed, 238 wells were closed during the year which is an improvement on the 1906, figures.

The results of the analyses of well waters indicate the general polluted and dangerous condition of the wells in the town.

(c) **Milk.**—The milk supply of Colombo is still exceedingly unsatisfactory. The milkmen as a class are extremely careless in the matter of protecting this article of food from pollution, and milk if used in the unboiled state must be viewed as probably the most dangerous article of food sold in Colombo. It is sheer folly to drink milk which has not been recently boiled, even although the milk is got from a cow kept upon or brought to the premises of the householder.

The heavy incidence of Typhoid Fever amongst Europeans and Burghers is I believe in many instances attributable to neglect of ordinary precautions in regard to this important article of diet.

(d) **Aerated water.**—Of 16 samples of aerated waters six were condemned owing to their containing traces of heavy metals, (lead and copper). This was found to be due to the use of lead and copper piping in the bottling apparatus, and the manufacturers were required to replace these by block tin.

25. **Dairies.**—There were 40 dairies on the register at the end of 1906, distributed as shown in the statement below. Seven new registrations were granted, and 12 were cancelled leaving 35 on the register at the end of the year.

The condition of the dairies in Colombo although much better than it used to be, is still very unsatisfactory. This is due in a great measure to the lack of private enterprise, which in turn is due to the lack of interest displayed by householders in the source from which their milk supply is derived. If people would not buy milk from itinerant vendors these would soon be driven off the field but a man with a single cow which he hawks about from house to house has quite as good, indeed I believe even a better chance of securing customers than a dairyman who has spent considerable sums of money in an endeavour to render his dairy up to date.

Until the people themselves take an intelligent interest in these matters there is little chance of the dairymen exerting themselves more than they need in order to keep out of the Municipal Court.

The following statement shows the distribution of the registered dairies :—

TABLE XXXVI.
REGISTRATION OF DAIRIES, 1907.

WARD.	No. on register at end of 1906.	No. registered during the year, 1907.	No. discon- tinued during the year.	Total at end of the year.
Fort ...	—	—	—	—
Pettah ...	—	—	—	—
San Sebastian ...	—	—	—	—
St. Paul's ...	6	1	1	6
Kotabena ...	3	—	1	2
New Bazaar ...	4	2	2	4
Maradana ...	13	—	5	8
Slave Island ...	4	—	2	2
Kollupitiya ...	10	4	1	13
Total ...	40	7	12	35

26. **Bakeries.**—The table below shows the distribution of the bakeries of which there were 49 on the register at the end of the year.

The condition of the bakeries in Colombo has very greatly improved since the passing of the by-laws which render their registration compulsory.

TABLE XXXVII.
BAKERIES REGISTERED DURING, 1907.

MONTH.	Fort.	Pettah.	San Sebastian	St. Paul's.	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Colpetty.	Total.
January	...	1	—	—	—	—	—	—	—	1
February	...	1	1	—	1	—	—	—	—	4
March	...	1	1	—	4	—	—	2	1	10
April	...	1	1	1	1	2	1	1	—	9
May	...	—	—	1	—	1	4	3	—	9
June	...	—	—	—	2	—	2	—	—	4
July	...	—	—	1	2	—	2	1	—	7
August	...	—	—	—	—	—	—	—	—	—
September	...	—	—	—	—	—	—	—	1	1
October	...	—	—	—	1	—	—	—	—	1
November	...	—	1	—	—	—	—	—	—	1
December	...	—	—	1	—	1	—	—	—	2
	3	5	3	6	9	6	8	6	3	49

27. **Eating Houses.**—There were 269 eating houses registered during, 1907. Their condition has been much improved since registration was made compulsory. Their distribution was as follows:—

TABLE XXXVIII.
NO. OF EATING HOUSES ON REGISTER AT END OF 1907.

Fort	...	...	24
Pettah	...	...	61
San Sebastian	...	...	13
St. Paul's	...	...	45
Kotahena North	...	...	15
Kotahena South	...	...	4
New Bazaar	...	...	14
Maradana North	...	...	15
Maradana South	...	...	30
Slave Island	...	...	29
Colpetty North	...	...	9
Colpetty South	...	...	10
Total	...	...	269

28. **Laundries.**—244 laundries were on the register at the end of 1907, distributed as shown below.

The condition of the laundry trade in Colombo continues to be most unsatisfactory. Many householders do not even take the trouble to ascertain whether their laundrymen are registered or not. The great difficulty in connection with laundry work is as hitherto the difficulty of obtaining pure water. Even the dhobbies who wash in the Municipal tanks at Beira which are supplied with town water, wash batch after batch of dirty clothes in the same water until it looks almost of the consistence of pea soup. They say they pass them through clean water afterwards, but I am inclined to think from what I have seen that this very necessary stage is often omitted.

To ensure the free use of clean water there should be as little restriction as possible placed upon its use, the town supply is not at present so plentiful as to encourage its use for this purpose.

TABLE XXXIX.
LAUNDRY REGISTRATION, 1907.
No. on register at end of year.

Fort	...	...	—
Pettah	...	...	26
San Sebastian	...	...	12
St. Paul's	...	...	3
Kotahen North	...	...	23
Kotahen South	...	...	20
New Bazaar	...	...	55
Maradana North	...	...	32
Maradana South	...	...	39
Slave Island	...	...	21
Colpetty North	...	...	2
Colpetty South	...	...	11
Total	...	...	244

29. **Offensive and Dangerous Trades.**—The number of licenses issued during the year in respect of dangerous and offensive trades is shown in the table below :—

There are no tanneries now in Colombo.

TABLE XL.

LIST OF LICENSES ISSUED FOR THE FOLLOWING TRADE PURPOSES DURING, 1907.

Month.	Manure.	Timber and fire-wood.	Cotton	Dyeing.	Straw.	Soap.
January	—	2	—	—	—	—
February	2	39	4	1	8	—
March	2	21	2	2	1	1
April	1	7	3	—	3	1
May	—	9	3	1	—	1
June	—	9	2	1	—	—
July	4	6	2	4	1	—
August	1	7	—	2	—	—
September	—	2	—	—	—	—
October	—	1	—	—	1	—
November	1	3	—	—	2	—
December	2	5	—	—	1	—
Total	13	111	16	11	17	3

30. **Slaughter-house.**—There is only one Slaughter-house now in Colombo, viz :—the one at Demetagoda.

The number of cattle and sheep slaughtered, the number of animals rejected, &c., are shown in the statement below.

The condition of the Slaughter-house is not satisfactory. The accommodation is much too limited, especially for buffaloes, and there are many improvements required. To place this branch on a proper footing, in accordance with modern requirements will cost a great deal of money. The matter has been under consideration for some time.

TABLE XLI.

SLAUGHTER-HOUSE RETURNS, 1907, DEMETAGODA SLAUGHTER-HOUSE.

(a)

	Carcases condemned.	Livers condemned.
1st Quarter	8½	250
2nd Quarter	11½	204
3rd Quarter	18	151
4th Quarter	14½	131
Total	53½	736

(b) CATTLE, &c., SLAUGHTERED.

	Cattle.	Sheep and goats.	Pigs.
1st Quarter	5,486	1,6033	452
2nd Quarter	5,895	1,8389	536
3rd Quarter	6,077	1,9225	598
4th Quarter	6,191	1,8830	605
Total	23,649	72,477	2,191

(c) RETURN OF CATTLE REJECTED.

Quarter.	Indian.		Ceylon.		Nature of disease.					Total.
	Black	Buffalo	Black	Buffalo	Hoof	Sores & abscesses	Skin	Rinder-pese	Wasted.	
1st Quarter	39	—	5	1	12	4	—	—	29	45
2nd Quarter	278	22	29	37	11	12	5	—	338	366
3rd Quarter	240	36	26	86	—	3	—	1	384	388
4th Quarter	399	44	34	119	9	10	—	2	575	596
Total	956	102	94	243	32	29	5	3	1326	1395

31. **Licenses issued.**—The following statement shows the number of meat and fish licenses issued during each month of the year, and Statement XLIII. shows the number of stalls rented during the year :—

TABLE XLII.

STATEMENT SHOWING NUMBER OF MEAT AND FISH LICENSES ISSUED FOR THE YEAR, 1907.

Month.	Butchers license	Special license of mutton.	Special licenses for beef.	Special licenses for fish.
December 1906 ...	47 (for 07)	11	18	1
January 1907 ...	1	4	4	2
February ...	1	—	5	4
March ...	—	2	2	24
April ...	2	—	—	1
May ...	—	—	1	—
June ...	—	5	4	1
July ...	—	—	—	—
August ...	—	—	—	—
September ...	—	—	—	2
October ...	1	—	—	—
November ...	—	—	—	3
December ...	—	—	—	—
	52	22	34	38

TABLE XLIII.

32. List of stalls in different public markets used for the sale of beef, &c.

Name of market.	No. of stalls.	Mutton stalls.	Beef stalls.	Pork stalls.	Vacant.
Edinburgh meat market.	24	7	10	4	3
Dean's road meat market.	19	5	14	—	—
Slave Island meat market.	10	—	7	—	3
Slave Island mutton market ...	10	4	3	—	3
Gintupitiya mutton market ...	9	9	—	—	—
Colpetty ...	5	2	3	—	—
Mohamedan meat market	6	—	6	—	—
Bambalapitiya market ...	4	4	—	—	—
	87	31	43	4	9

Section V.

33. **Work done by staff.**—The statement below gives a summary of the work done by the Sanitary Inspectors :—

It shows a falling off in the number of premises visited, and a slight falling off in the number of prosecutions, but an increase in the number of convictions and in the amount of the fines imposed. The Wards showing the greatest falling off in the number of inspections paid are Kotahena and St. Paul's and the Ward showing the least falling off is Colpetty.

Fort, Pettah and New Bazaar show an increase in the number of prosecutions, all the other Wards show a decrease. The details of the prosecutions are given in Statement XLIX. in the appendix.

TABLE XLIV.

(a) WORK DONE BY WARD INSPECTORS.

Nature of Work.	Fort.	Pettah.	San Sebastian	St. Paul's.	Kotahena.	New Bazaar.	Maradana.	Slave Island.	Colpetty.	Total.
No. of inspections ...	1006	8938	5663	13694	13327	4997	10228	5214	10781	73848
No. of premises in which sanitary defects were found ...	148	2072	932	1667	1467	1463	1692	714	1536	11691
No. of notices served ...	28	337	245	749	300	260	320	303	236	2778
No. of notices voluntarily complied with ...	25	240	135	556	253	156	227	247	194	2053
No. of premises where defects were rectified after warning ...	94	2690	392	1118	812	669	1015	178	265	7233
No. of wells closed ...	2	9	21	52	34	27	64	20	9	238
No. of cesspits closed ...	—	24	17	22	21	42	24	15	5	170
No. of houses disinfected ...	7	25	46	81	196	67	201	78	100	801
No. of prosecutions ...	70	830	540	649	661	694	659	536	281	5020
No. of convictions ...	61	700	456	537	597	610	476	441	327	4205
No. discharged or otherwise dealt with ...	5	57	39	47	44	50	32	25	29	328
No. pending at end of year	2	4	4	6	5	14	11	1	4	51
Amount of fines ...	198'00	4413'00	2018'50	3017'00	2751'00	3507'31	3090'50	4747'50	1848'50	25591'82

(b) MUNICIPAL MIDWIVES.

The work done by the Midwives is shown in the three statements below.

476 confinements were attended, and 479 infants were born.

37 out of the 479 infants died representing a rate of 0.77 per 1,000. 29 of these were still births and the remaining 8 died within 4 days of birth.

No case of Ophthalmia neonatorum was reported by the Municipal Midwives.

TABLE XLV.

(a) STATEMENT OF CASES CONDUCTED BY MUNICIPAL MIDWIVES DURING, 1907.

NAME.	DIVISION.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.
S. Fernando ...	St. Paul's ...	6	7	7	7	27
Agida Perera ...	Kotahena ...	23	23	27	46	119
Nonno Hamy ...	San Sebastian ...	18	13	16	19	66
M. P. Mumger ...	St. Paul's ...	26	20	14	30	90
Caroline Caldera ...	Slave Island ...	19	10	—	—	29
Amy de Silva ...	Slave Island ...	—	—	26	50	76
Sarah Dias ...	New Bazaar ...	24	12	16	17	69
		116	85	106	169	476

TABLE XLVI.

(b) STATISTICS OF CASES CONDUCTED BY MUNICIPAL MIDWIVES DURING, 1907.

Division.	Name of Midwife.	Burgers.		Sinhalese.		Tamils.		Moors.		Malays.		Others.		All Races.		Total Births.	Deaths.	Death rate per cent.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.			
I. St. Paul's	Mrs. S. Fernando	1	2	6	6	1	4	3	2	—	—	1	1	12	15	27	2	7.41
II. Kotahena	Agida Perera	12	10	35	34	13	6	3	3	1	—	1	1	65	54	119	9	7.56
III. St. Sebastian	Nonno Hamy	2	4	15	19	3	3	5	4	2	4	—	5	27	39	66	5	7.58
IV. St. Paul's	Mary P. Mumger	1	1	7	9	34	34	5	—	—	—	—	—	47	44	91	9	9.89
V. Slave Island	Caroline Caldera	2	—	7	10	4	3	1	—	1	1	—	—	15	14	106	8	7.55
	Amy de Silva	2	—	15	21	9	7	—	1	9	13	—	—	35	42	—	—	—
VI. New Bazaar	Sarah Dias	5	3	18	20	5	2	6	8	2	1	—	—	36	34	70	4	5.71
	Total of each sex...	25	20	103	119	69	59	23	18	15	19	2	7	237	242	479	37	7.72
	Grand Total ...	45		222		128		41		34		9		479				

Includes three multiple births.

TABLE XLVII.

(c) BIRTHS AND DEATHS.

Race.	Births.			Deaths.			Death rate per cent.
	Persons.	Males.	Females.	Persons.	Males.	Females.	
All races	497	237	242	37	14	23	7.72
Burgers	45	25	20	4	3	1	8.89
Sinhalese	222	103	119	15	7	8	6.76
Tamils	128	69	59	15	3	12	11.72
Moors	41	23	18	2	1	1	4.88
Malays	34	15	19	1	—	1	2.94
Others	9	2	7	—	—	—	0.00

Section VI.**CONSERVANCY BRANCH.**

The work of removal and disposal of night-soil was as usual carried out by contract under the supervision of this Department. It was, except during the month of April, satisfactorily carried out. The most unsatisfactory part of this work was as hitherto in the matter of cleaning of the buckets after they had been emptied. This is not at all satisfactorily done especially in the poorer quarters of the town. This part of the work is rendered much more difficult by the defective nature of many of the buckets used by the householders. A galvanised iron bucket the sides of which have become corroded and rough cannot properly be cleansed unless it is washed which cannot be done under existing conditions in a large proportion of instances as there is no means of disposing of the highly polluted washings. A bucket the sides of which are left coated with night-soil is not only highly offensive but a great source of danger owing to the prevalence of flies at certain seasons. The chief neglect on the part of the householders was as usual the neglect to use coir dust which as in the case of improper cleansing not only renders the latrine offensive but a source of danger on account of flies which visit the latrines for the purpose of depositing their eggs, and then visit the house in search of food. The eggs of these flies are subsequently hatched out in the trenches at the depôt, and as shown in my report upon Fevers this is one of the sources of the Plague of flies which at certain seasons infest the depôt.

There is no doubt in my mind these latrines are a fruitful source of Typhoid infection not only through the agency of flies but owing to the habit of squatting and the consequent fouling of the floor with urine. The infection is no doubt frequently carried from the latrine into the house upon the feet of those using the latrine. The new type of latrine which is being introduced and which is after the model of the one first introduced by the Military into the latrines of the native regiment, has greatly improved the sanitary condition of the latrines, but in many of these the floor is still fouled with urine and washings owing to the carelessness of the householders who do not understand the danger of soiling their feet with this filth. The latrine system will not be on a satisfactory footing until the water carriage system has been introduced.

The annexed Statement L. in appendix gives a classified statement of the neglects by the contractor and the fines imposed. Fines aggregating Rs. 1,696.85 were imposed as against Rs. 947.70 in 1906.

A large part of these fines were imposed during the first half of the year towards the end of the old contract. The contract changed hands in June when Mr. Don Philip A. Wijewardene, Muhandiram, was succeeded as contractor by Mr. P. de S. Wijeyeratne who had previously held the contract for some years.

The new contract is for a term of three years, which is a distinct improvement on the old system of annual contracts, as the change of contract invariably means a good deal of trouble and dislocation of service.

34. Revenue and Expenditure.—These are shown in the Statement LI. in appendix where the number of buckets conserved, and the number of cesspits cleared are also shown.

On 31st December, 1906, there were 8,356 buckets being daily conserved, while on 31st December, 1907, there were 8,819, an increase of 463 buckets.

The total amount of revenue collected was Rs. 159,513.40 as against a total amount due of Rs. 172,595.32. This cannot be considered very satisfactory and a special effort has been made this year (1908), to improve matters in this respect.

The collection of this source of revenue is one which is rendered exceedingly difficult owing to the enormous number of small items to be dealt with, and the impunity with which householders could hitherto delay their payments. The imposition of costs in addition to the usual charge in every case where a householder fails to pay after due notice will it is hoped improve matters, and steps have been taken to put this in force.

35. The Depot.—The work of the depôt has been carried on as hitherto and has been as satisfactorily done as circumstances permit.

36. Cesspits.—357 cesspits were cleared out, and 130 were closed during the year. Four pits were cleared and filled up and two dry-earth closets were built by the Works Department at the expense of the owners.

Section VII.**STAFF.**

Dr. A. K. Pani the Assistant Medical Officer of Health, resigned his appointment and left on 31st July, 1907, to take up the post of Medical Officer of Health at Bangalore.

I take this opportunity of acknowledging the excellent work done by Dr. Pani while in this Department. The delay in filling up the vacancy so created has caused the greatest inconvenience, as Dr. Loos who has been acting has other duties to perform, and can only devote a part of his time to the work of this Department. I am indebted to Dr. Loos for much valuable assistance, his special knowledge of Infectious Diseases being of particular service.

The various resignations, promotions, &c., during the year are shown in Statement LII. in the appendix.

WM. MARSHALL PHILIP,
Medical Officer of Health.

TABLE XLVIII. (a)

Causes of Deaths in the Town of Colombo during the year 1907.

Class.	CAUSES OF DEATHS.	Colombo Town.	WARD.									NATIONALITY.							
			Fort and Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana Hospitals.	Maradana exclusive of Hospitals.	Slave Island.	Colpetty.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
	ALL CAUSES.	5747	27	94	262	559	869	530	1665	863	487	391	75	291	2603	1395	1002	189	192
i	Specific febrile or zymotic diseases	1426	...	23	55	123	222	116	530	191	96	70	29	72	576	439	223	39	48
ii	Parasitic diseases	182	...	...	9	5	32	11	63	24	23	15	...	5	112	41	18	3	3
iii	Dietetic diseases	46	...	...	...	4	22	...	7	7	5	1	1	1	20	14	8	1	1
iv	Constitutional diseases	829	3	11	38	75	87	79	248	152	72	64	5	50	392	169	145	36	32
v	Developmental diseases	365	1	3	18	33	93	35	46	57	50	29	1	28	155	60	90	23	8
vi	Local diseases	2261	11	46	112	282	331	243	537	374	169	156	28	104	1039	537	418	66	75
vii	Violence	112	9	2	2	1	10	4	55	16	5	8	4	3	58	24	12	3	8
viii	Ill-defined and not specified diseases	526	3	9	28	36	72	42	179	42	67	48	7	28	251	117	88	18	17
i	1. Miasmatic diseases	370	...	3	15	33	62	23	98	82	35	19	11	26	200	47	60	16	10
	2. Diarrhoeal diseases	827	...	10	23	64	126	61	383	79	39	42	15	36	280	338	117	13	28
	3. Malarial diseases	153	...	9	12	16	27	21	33	17	14	4	1	5	64	44	25	6	8
	4. Zoogenous diseases	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...
	5. Venereal diseases	12	...	1	1	1	...	...	7	1	...	1	...	...	8	2	1	...	1
	6. Septic diseases	63	...	...	4	9	7	10	9	12	8	4	2	5	23	8	20	4	1
ii	Parasitic Diseases	182	...	...	9	5	32	11	63	24	23	15	...	5	112	41	18	3	3
iii	Dietetic diseases	46	...	...	...	4	22	...	7	7	5	1	1	1	20	14	8	1	1
iv	Constitutional diseases	829	3	11	38	75	87	79	248	152	72	64	5	50	392	169	145	36	32
v	Developmental diseases	365	1	3	18	33	93	35	46	57	50	9	1	28	155	60	90	23	8
vi	Diseases of :—																		
	1. Nervous system	780	...	11	46	116	115	122	67	148	74	81	3	29	377	156	164	31	20
	2. Organs of special sense	2	...	...	...	...	...	...	2	...	...	...	...	...	1	1	...	...	...
	3. Circulatory system	167	4	4	3	9	38	3	36	33	10	27	7	15	87	27	23	1	7
	4. Respiratory system	826	3	25	47	114	126	82	195	140	65	29	2	34	343	228	163	21	35
	5. Digestive system	254	1	2	7	21	37	17	105	38	11	15	9	18	130	44	40	6	7
	6. Lymphatic system and ductless glands	5	...	...	...	...	2	...	2	1	...	...	...	...	3	...	1	1	...
	7. Urinary system	86	1	1	3	15	3	10	41	7	4	1	3	4	40	23	11	2	3
	8. Reproductive system																		
	a. Organs of generation	19	...	...	1	...	1	1	12	1	3	...	1	2	10	4	1	1	...
	b. Parturition	39	2	1	3	5	8	4	11	3	...	2	2	1	17	7	10	1	1
	9. Organ of locomotion	4	...	...	...	...	...	...	4	...	...	...	...	...	3	1	...	...	...
	10. Integumentary system	79	...	2	2	2	1	4	62	3	2	1	1	1	28	40	5	2	2
vii	1. Accident or negligence	80	8	2	1	1	7	2	41	10	4	4	3	3	36	19	10	2	7
	2. Homicide	19	...	...	...	...	2	...	11	2	...	4	...	...	14	4	1	...	...
	3. Suicide	13	1	...	1	...	1	2	3	4	1	...	1	...	8	1	1	1	1
	4. Execution	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
viii	1. Ill-defined and not specified causes	526	3	9	28	36	72	42	179	42	67	48	7	28	25	117	88	18	17
	<i>Miasmatic Diseases.</i>																		
	Small-pox	7	...	...	...	1	...	4	...	...	2	...	...	...	3	...	3	1	...
	Chicken-pox	2	...	...	1	...	...	...	...	...	...	1	...	...	1	...	1	...	...
	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping cough	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...
	Mumps	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria	4	...	...	...	1	1	1	...	...	1	...	...	...	2	1	1	...	...
	Cerebro-spinal fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Simple and Ill-defined fever	49	...	1	1	5	3	3	6	9	16	5	...	3	19	9	9	8	1
	Enteric fever	285	...	2	13	20	52	14	92	65	14	13	10	23	162	32	42	7	9
	Suspected Enteric fever	15	...	...	...	...	6	...	...	7	2	...	1	...	10	1	3	...	...
	Influenza	7	...	...	...	6	...	1	...	...	...	...	...	...	2	4	1	...	...
	<i>Diarrhoeal Diseases.</i>																		
	Cholera	19	...	...	1	...	7	5	1	3	2	...	...	...	5	8	5	...	1
	Diarrhoea	502	...	3	9	31	69	35	241	57	25	32	7	19	173	214	71	5	13
	Dysentery	306	...	7	13	33	50	21	141	19	12	10	8	17	102	116	41	8	14

Causes of Deaths occurred in each Ward, &c.—(Continued.)

Class.	CAUSES OF DEATH.	Colombo Town.	WARD.									NATIONALITY.						
			Fort and Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Basar.	Maradana Hospitals.	Maradana exclusive of Hospitals.	Slave Island.	Colpetty.	Europeans.	Burgbers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
	<i>Malarial Diseases.</i>																	
	Remittent fever	108	6	11	13	26	20	4	13	11	4	1	5	46	26	20	3	7
	Ague	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Malarial cachexia	44	3	4	3	1	1	29	4	2	...	...	...	18	18	5	2	1
	<i>Zoogenous Diseases.</i>																	
	Hydrophobia	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...
	<i>Venereal Diseases.</i>																	
	Syphilis	8	1	1	1	...	...	4	1	...	...	...	...	5	1	1	...	1
	Gonorrhœa, stricture of Urethra...	4	...	...	...	...	...	3	...	...	1	...	...	3	1	...	...	...
	<i>Septic Diseases</i>																	
	Phagedæna	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
	Erysipelas	12	...	1	2	2	2	2	2	1	...	...	3	3	3	3	...	...
	Pyæmia septicæmia	27	...	1	3	3	4	5	7	2	2	2	2	11	2	6	3	1
	Puerperal fever	23	...	2	4	2	4	1	3	3	2	...	...	9	3	11	...	...
	<i>Parasitic Diseases</i>																	
	Thrush	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...
	Worms (Animal)	121	...	9	5	31	11	5	23	23	14	...	5	85	9	16	3	3
	Dochmius duodenalis	60	...	...	...	1	...	58	...	...	1	...	...	26	32	2	...	...
	<i>Dietetic Diseases.</i>																	
	Starvation, want of breast milk	42	...	...	1	22	...	6	7	5	1	...	1	19	12	8	1	1
	Chronic alcoholism	3	...	...	3	...	...	...	...	...	...	...	...	1	2	...	...	...
	Delirium tremens	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
	<i>Constitutional Diseases.</i>																	
	Rheumatism	6	...	...	...	1	1	1	...	...	3	...	...	1	4	1	...	...
	Rickets	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
	Cancer	26	...	...	2	1	2	10	5	2	4	1	5	8	7	3	1	1
	Tabes messenterica	19	...	...	2	2	2	4	7	...	2	...	...	12	2	4	1	...
	Tubercular meningitis	25	...	1	2	3	1	10	6	...	2	1	4	11	6	2	1	...
	Phthisis	706	3	9	34	68	75	70	217	123	60	3	38	338	142	126	29	30
	Other forms of tuberculosis scrofula	3	...	...	1	...	...	1	...	...	1	...	...	3	...	...	...	...
	Purpura hæmorrhagic diathesis	2	...	...	...	...	...	1	1	...	...	...	1	1	...	...	...	...
	Anæmia, chlorosis leucocy-thæmia	24	...	2	...	4	2	1	6	6	3	...	...	12	6	4	1	1
	Diabetes mellitus	14	...	3	...	1	1	2	3	2	2	...	1	6	1	4	2	...
	Leprosy	2	...	...	...	...	...	...	1	1	...	...	...	1	...	1	...	...
	Elephantiasis	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
	Parangi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other and undefined constitutional diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	<i>Developmental Diseases.</i>																	
	Premature birth	92	...	3	...	25	...	36	17	7	4	1	11	53	16	8	3	...
	Spina bifida	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
	Imperforate anus	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
	Cleft palate	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
	Other congenital defects	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
	Old age	269	3	15	33	67	35	8	40	43	25	...	16	100	44	82	20	7
	<i>Nervous System.</i>																	
	Inflammation of the brain or its membranes	16	...	...	...	...	...	13	3	...	...	...	1	11	2	...	1	1
	Softening of brain	2	...	...	...	...	...	...	...	...	2	...	...	2	...	...	...	...
	Apoplexy	21	2	1	6	2	1	2	3	4	...	...	6	7	5	1	2	...
	Paralysis	49	...	...	2	9	7	9	13	5	4	...	5	32	6	5	...	1
	Epilepsy	9	...	1	2	1	1	1	1	1	1	...	2	3	4	...	...	...
	Convulsions	11	1	1	2	...	1	...	3	1	2	1	1	3	1	4	...	1
	Infantile convulsions	456	4	27	74	66	73	9	113	49	41	1	14	230	86	92	22	11
	Laryngismus stridulus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Collapse	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
	Tetanus	170	4	16	30	34	38	22	8	12	6	...	6	62	42	50	6	4
	Mania	2	...	...	...	...	...	...	...	...	2	...	...	1	1	...	...	...
	Paraplegia disease of the spinal chord	2	...	...	...	1	...	1	...	...	...	...	...	2	...	...	...	...
	Other undefined diseases of brain...	20	...	...	...	1	...	6	2	1	10	...	2	15	3	...	...	...
	Other undefined diseases of nervous system	21	...	...	...	1	...	5	1	1	13	1	...	11	4	4	1	...

Causes of Deaths occurred in each Ward, &c.—(Continued.)

Class.	CAUSES OF DEATHS.	Colombo Town.	WARD.									NATIONALITY.							
			Fort and Galle Face.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	New Bazaar.	Maradana Hospitals.	Maradana exclusive of Hospitals.	Slave Island.	Colpetty.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
	<i>Organs of special Sense.</i>																		
	Conjunctivitis and other diseases of the eye	2	...	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...	...
	Otitis and other diseases of the ear	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Epistaxis and other diseases of nose	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	<i>Circulatory System.</i>																		
	Pericarditis	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
	Morbus cordis (disease of heart)	32	1	1	...	1	5	3	7	7	4	3	2	4	14	7	3	...	2
	Valve disease of heart	6	...	1	...	...	2	...	2	...	...	1	...	2	2	2	...	...	...
	Hypertrophy of heart	5	...	...	...	1	...	...	2	1	...	1	...	...	3	...	2	...	...
	Angina pectoris syncope	6	1	1	...	1	...	...	1	...	...	2	1	1	1	2	1	...	...
	Aneurism	6	1	1	...	1	...	...	1	...	...	2	...	1	...	2	...	...	3
	Embolism, thrombosis	3	...	...	...	...	...	2	1	...	...	...	...	1	1	1	1	...	...
	Phlebitis	2	...	...	1	...	1	...	...	...	...	...	...	1	1	...	...	...	...
	Varicose veins	2	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	...	...
	Other and undefined diseases of heart or circulatory system	104	1	...	2	5	30	...	20	24	5	17	4	6	62	13	16	1	2
	<i>Respiratory System.</i>																		
	Laryngitis	8	...	...	2	1	1	...	2	1	1	...	...	...	3	4	1	...	...
	Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bronchitis	188	...	3	10	38	29	33	17	33	20	5	...	6	78	43	51	6	4
	Asthma	15	...	...	...	...	...	...	11	3	1	...	...	1	10	2	1	...	...
	Pneumonia	582	2	2	33	70	94	49	145	00	43	24	2	27	239	167	105	15	27
	Pleurisy	15	...	...	...	1	2	...	12	...	...	...	...	...	5	7	2	...	1
	Other and undefined diseases of respiratory system	18	1	1	2	4	...	...	9	1	...	...	...	...	8	5	3	...	2
	<i>Digestive System.</i>																		
	Stomatitis	13	...	...	2	2	3	3	...	1	2	...	...	...	5	2	4	2	...
	Dentition	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
	Quinsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sore throat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dyspepsia	5	...	...	...	1	...	...	3	1	...	...	...	...	...	4	1	...	...
	Hæmatemesis	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
	Melæna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Disease of Stomach	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
	Enteritis	88	...	...	...	8	23	2	31	22	2	1	2	6	54	12	12	...	...
	Ulceration of intestines	5	...	...	...	1	...	...	1	...	3	...	...	1	1	2	1	...	...
	Ileus obstruction of intestines	12	...	...	2	1	...	1	4	1	1	2	2	1	4	1	3	...	1
	Debility	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stricture or stangulation of intestine	5	...	...	...	...	...	4	...	...	1	...	...	...	4	1	...	...	...
	Intussusception of intestine	2	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...
	Hernia	11	...	...	1	3	...	5	...	1	1	...	...	...	3	4	4	...	...
	Fistula	2	...	...	...	...	...	2	...	...	...	...	...	...	1	...	1	...	...
	Peritonitis	32	...	2	2	2	3	7	12	4	...	...	...	4	15	5	5	2	1
	Ascites	3	...	...	...	1	...	1	1	1	...	...	...	...	1	...	2	...	...
	Gallstones	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cirrhosis of liver	40	1	...	...	1	1	1	31	3	1	1	2	2	23	6	5	...	2
	Other diseases of liver	14	...	...	...	...	1	2	8	1	...	2	2	1	8	1	1	1	...
	Other and undefined diseases of digestive system	19	...	...	...	3	3	1	5	1	2	4	1	3	9	5	...	1	...
	<i>Diseases of Lymphatic System and Ductless Glands.</i>																		
	Diseases of the lymphatic system.	5	...	...	...	2	2	1	...	...	...	...	...	...	3	...	1	1	...
	Diseases of spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	<i>Diseases of Urinary System.</i>																		
	Nephritis	32	1	1	2	7	1	6	10	4	...	...	3	...	16	6	4	1	2
	Bright's disease	39	...	...	1	8	1	3	22	2	1	1	...	2	17	13	6	...	1
	Uremia	4	...	...	...	...	...	2	1	1	...	...	...	...	3	...	1	...	...
	Suppression of Urine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Calculus (stone)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hæmaturia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diseases of Bladder	3	...	...	...	...	1	1	...	1	...	...	...	...	2	...	...	1	...
	Other and undefined diseases of urinary system	8	...	...	...	1	...	6	...	1	...	...	...	2	5	1	...	...	...

Causes of Deaths occurred in each Ward, &c.—(Continued.)

Class.	CAUSES OF DEATHS	Colombo Town.	WARD.										NATIONALITY.													
			Fort and Galle Face.	Pettah.	San Sebastian.	St. Paul's	Kotahena.	New Bazaar.	Maradana Hospitals.	Maradana exclusive of Hospitals.	Slave Island.	Colpetty.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.							
	<i>Diseases of Organs of Generation.</i>																									
	Ovarian diseases	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
	Diseases of uterus and vagina	14	...	...	1	...	1	1	9	1	1	...	...	...	1	1	8	3	1	...	...	...	...	...	...
	Diseases of testes, penis, scrotum &c.	4	...	...	..	...	...	...	3	...	1	...	...	...	...	1	2	1	...	...	...	...	...	...	...
	<i>Diseases of parturition.</i>																									
	Abortion or miscarriage	4	1	...	...	...	1	1	1	...	...	...	...	...	1	...	3	...	...	...	...	...	...	...	...
	Puerperal mania	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
	Puerperal convulsions	7	...	..	1	2	1	...	1	1	...	1	...	1	...	...	2	4	1	...	...	...	...	...	...
	Placenta Prævia, flooding	4	...	...	...	...	2	...	2	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...
	Other and undefined accidents of child-birth	23	1	1	2	3	3	3	7	2	...	1	...	1	1	9	3	7	1	1	...	...	...	...	...
	<i>Diseases of Organs of Locomotion.</i>																									
	Cies Necrosis
	Arthritis Ostitis, periostitis	3	...	...	...	..	...	...	3	...	...	...	...	...	...	...	2	1	...	...	...	...	...	...	...
	Other and undefined diseases of organs of locomotion	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
	<i>Diseases of Integumentary System.</i>																									
	Carbuncle	7	...	...	...	1	1	2	2	1	...	...	...	...	1	...	1	2	2	1	...	...	...	...	...
	Phlegmon, Cellulitis	11	...	1	2	...	...	2	6	...	...	...	...	...	...	...	7	2	2	...	...	...	...	...	...
	Lupus
	Ulcer, bed sore	56	...	...	...	1	...	...	53	1	1	...	...	...	1	18	34	...	1	2	...	...	...	...	...
	Eczema
	Pemphigus	4	...	1	...	...	...	...	1	1	1	...	...	...	...	1	2	1	...	...	...	...	...	...	...
	Other and undefined diseases of integumentary system	1	...	..	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...
	<i>Accident or Negligence.</i>																									
	Fractures, contusions	29	2	...	...	...	1	...	18	6	1	1	...	...	...	1	14	9	3	...	...	...	...	2	...
	Gun shot wounds	3	...	...	...	...	...	...	2	...	...	1	...	...	1	...	2	...	...	...	...	...	...	...	...
	Cut, stab	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Burn, scald	14	...	...	...	2	1	7	1	2	1	...	...	...	2	8	2	1	...	1	...	...	...	...	...
	Poison	2	...	...	...	...	...	2	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
	Drowning	9	4	1	...	1	1	...	...	...	1	1	...	1	2	1	2	2	2	1	...	...	...	...	...
	Suffocation	3	2	...	...	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...
	Otherwise	20	...	1	1	...	2	1	12	3	...	...	...	1	9	5	2	...	3	...	...	...	...	...	...
	<i>Homicide.</i>																									
	Murder, Manslaughter	19	...	...	...	...	2	...	11	2	...	4	...	...	14	4	1	...	...	...	...	...	...	...	...
	<i>Suicide.</i>																									
	Gun shot wounds	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
	Cut, stab	3	...	...	...	1	1	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...
	Poison	4	...	...	...	...	...	3	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...
	Drowning	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
	Hanging	4	...	...	1	...	1	...	1	1	1	...	...	...	1	...	1	1	1	1	...	...	...	...	...
	Otherwise	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	<i>Execution.</i>																									
	Hanging
	<i>Ill-defined and not specified causes.</i>																									
	General Dropsy	62	...	...	1	6	26	7	1	9	7	5	...	...	32	10	16	1	3	...	...	...	...	...	...
	Debility	369	1	8	25	29	26	32	138	24	50	36	2	21	170	84	67	16	9	...	...	...	...	...	...
	Sudden deaths (causes unascertained)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Abscess	35	1	1	...	...	5	1	21	...	4	2	2	1	14	14	2	...	2	...	...	...	...	...
	Tumour	11	...	...	...	1	...	8	2	...	...	...	...	1	7	3	...	...	...	...	...	...	...	...
	Hæmorrhage	18	1	...	1	1	7	...	...	4	1	3	1	3	11	1	1	...	1	...	...	...	...	...
	Other ill-defined and not specified causes	31	...	...	1	...	7	2	11	3	5	2	2	2	17	5	2	1	2	...	...	...	...	...

TABLE XLVIII. (b)
Births and deaths and their rates in each Ward of the Colombo Municipality, with
the principal causes of deaths, 1907.

WARD.	Population to the middle of 1907.		BIRTHS										DEATHS													Infant mortality.											
	Total Births		Nationality					Total Deaths					Principal Causes													Birth rate per mille per annum.		Death rate per mille per annum.									
	Male	Female	Persons	European	Burgers	Sinhalese	Tamil	Moors	Malays	Others	Persons	Male	Female	Measles	Small-pox	Whooping-cough	Diphtheria	Scarlet fever	Typhoid	Enteric fever	Dysentery	Infantile Convulsions	Tetanus	Old age	Accident	Homicide	Violence.	Children under one year.	Proportion to 1,000 births.	Average of 1909 to 1906.	1906.	1907.					
	Persons	Female	Persons	European	Burgers	Sinhalese	Tamil	Moors	Malays	Others	Persons	Male	Female	Measles	Small-pox	Whooping-cough	Diphtheria	Scarlet fever	Typhoid	Enteric fever	Dysentery	Infantile Convulsions	Tetanus	Old age	Accident	Homicide	Violence.	Children under one year.	Proportion to 1,000 births.	Average of 1909 to 1906.	1906.	1907.					
COLOMBO TOWN ...	176724	428021792101	94	375	2380	447	653	161	70	5747	3305	2442	75	291	2603	1395	1002	189	192	808	456	170	269	80	19	13	1300	394	29.2	27.3	24.2	34.6	39.8	32.5			
Fort and Galle Face	2285	10	4	6	10	5	30	1	1	27	24	3	7	2	1	4	4	1	8	3	2	—	—	—	—	—	1	100	4.0	5.6	4.3	15.0	23.6	11.8			
Pettah	7561	47	24	23	10	5	30	1	1	94	63	31	7	29	40	14	1	3	—	9	9	24	10	4	—	—	14	298	6.8	8.0	6.2	14.3	16.4	12.4			
San Sebastian	10303	215	113	102	3	12	73	8	4	962	1351	27	6	66	38	138	5	7	—	25	34	43	22	16	15	1	—	79	367	20.0	21.7	20.7	25.0	27.5	25.3		
St. Paul's	23104	383	199	184	1	18	112	3	12	559	292	267	1	16	137	251	128	3	23	38	68	108	64	74	30	33	1	165	431	17.3	19.2	16.5	25.4	22.6	24.1		
Kotshena	37083	735	405	330	3	68	363	99	52	869	456	433	4	46	565	142	94	6	12	87	75	123	119	66	34	67	2	230	989	19.0	25.1	21.3	28.0	27.6	23.3		
New Bazaar	19536	446	228	218	3	29	204	37	156	530	282	242	30	293	65	188	18	26	5	37	70	82	56	38	35	2	179	335	24.3	27.0	22.7	30.5	29.7	27.0			
Maramana (Hospitals)	35468	803	407	396	17	104	413	60	157	863	459	404	9	58	394	122	230	38	22	102	217	161	282	9	22	8	41	11	3	149	204	—	—	—	—	—	—
do. Exclusive of do)	19311	474	247	227	11	94	193	69	72	487	251	226	3	20	128	84	105	106	31	44	60	63	37	45	12	43	4	4	238	296	22.8	25.9	22.5	26.9	29.9	24.2	
Slave Island	22073	375	180	195	41	57	198	42	22	391	198	193	13	38	217	81	34	5	3	22	47	29	42	4	6	25	4	94	251	17.5	18.7	16.9	19.2	21.7	17.6		
Kollapattiya																																					

* This is the population enumerated at the Census of 1901, and the rates for the two Wards are calculated on these figures until the next Census.

TABLE XLVIII. (c)

Births and Deaths and their rates, for each Race in the Town of Colombo for 1906 and 1907 and the averages for 1900 to 1906.

RACE.	Population Estimated to the middle of 1907.	Births.			Deaths.			Birth-rate per Mille.			Death-rate per Mille.		
		Average 1900-1906.	1906.	1907.	Average 1900-1906.	1906.	1907.	Average 1900-1906.	1906.	1907.	Average 1900-1906.	1906.	1907.
All races	176724	3736	4726	4280	5668	6890	5747	22.2	27.3	24.2	34.6	39.8	32.5
Europeans	2,945	82	80	94	85	103	75	28.7	27.5	31.7	29.7	35.4	25.3
Burghers	12,610	385	457	375	323	370	291	31.6	36.4	29.6	26.9	29.5	23.0
Sinhalese	74,591	2029	2584	2380	2612	3244	2603	28.5	34.9	31.7	36.7	43.8	34.7
Tamils	43,051	446	610	547	1342	1728	1395	11.8	14.6	12.6	35.7	41.4	32.2
Moors	31,968	608	744	653	962	1031	1002	20.2	23.5	20.3	32.0	32.6	31.2
Malays	5,299	128	166	161	168	175	189	26.8	32.0	30.2	35.3	33.8	35.5
Others	6,260	58	85	70	176	239	192	10.9	14.2	11.4	33.1	40.0	30.5

Details of Prosecutions by Ward Inspectors.

Nature of Offence.	Fort	Pettah	St. Sebastian	St. Paul's	Kotahena	New Bazaar	Maradana	Slave Island	Colpotty	Total.
Filthy premises	4	317	298	281	398	284	291	288	240	2401
Filthy space and drain	—	50	3	32	48	12	1	10	12	168
Foul privies	—	188	88	24	15	67	39	11	6	438
Neglect to provide privy accomodation.	—	—	—	—	7	1	2	2	7	19
Allowing urine, &c., to flow into public drain	—	1	—	5	2	—	—	—	—	8
Exposing food to dust and flies	59	91	63	146	41	83	115	48	58	704
Unlicensed bakery	1	3	2	7	3	5	13	7	2	43
Cattle nuisance	2	11	2	17	13	89	23	37	4	198
Sale of unwholesome food	—	11	4	1	—	4	—	2	4	26
Obstruction of passage to public market	—	24	15	1	—	—	—	6	—	46
Depositing rubbish on roadside and drain	—	9	3	6	8	—	18	—	3	47
Unlicensed manure dpôt	—	1	—	—	—	—	3	—	—	4
Default of payment of limewashing bill	—	6	2	14	9	10	11	3	—	55
Vending milk without a card	—	6	—	7	1	7	1	—	2	24
Unregistered laundry	—	14	7	—	10	11	2	3	16	63
Goat nuisance	—	2	—	—	2	—	—	—	—	4
Unregistered eating house	—	19	2	14	5	8	11	—	1	60
Storing hides without license	—	34	—	—	—	—	—	—	—	34
Sale of adulterated milk	1	4	—	4	11	1	5	1	2	29
Tying bulls on road side	—	1	—	—	—	—	—	—	—	1
Putrid pearl oysters in public market.	—	1	—	—	—	—	—	—	—	1
Nuisance by storage of maldive fish...	—	3	—	—	—	—	—	—	—	3
Unlicensed cattle shed	—	—	2	12	13	29	18	10	2	86
Storing in milk in unsuitable places.	—	—	1	—	—	—	—	—	—	1
Exposing rotton fruits for sale	—	—	2	—	—	—	—	—	—	2
Digging pits without permission	—	—	1	—	1	—	1	—	—	3
Throwing rubbish in markets	—	—	8	—	—	—	—	—	—	8
Boiling of offal	—	—	2	—	—	—	—	—	—	2
Unlicensed timber depôt	—	1	1	—	1	—	3	2	—	8
Neglect to fill up well after notice	—	1	5	11	7	5	25	3	—	57
Filthy stall	—	—	14	3	—	17	19	17	1	71
Filthy public bathing tubs	—	—	7	—	4	14	1	1	2	29
Exposing privy to public view	—	—	1	—	—	—	—	—	—	1
Filthy eating house	—	—	—	12	2	—	6	52	4	76
Pool of stagnant water	—	—	—	4	—	—	1	—	—	5
Unlicensed soap manufactory	—	—	—	1	—	4	—	—	—	5
Unregistered dairy	—	—	—	1	3	4	—	3	4	15
Filthy bakery	—	—	—	4	3	12	2	3	3	27
Filthy dairy	—	—	—	1	—	5	—	6	—	12
Burial of Night-soil	—	2	—	1	1	3	1	—	—	8
Swine nuisance	—	—	—	—	28	—	—	—	—	28
Exposing goods outside line of stall...	—	—	—	—	—	—	19	6	—	25
Child committing nuisance	—	1	—	2	—	—	2	1	—	6
Neglect to report cases of infectious diseases	—	—	—	1	4	2	3	5	1	16
Overcrowding	—	11	—	2	1	—	—	7	—	21
Resistance to a public officer	—	—	1	1	—	2	—	1	—	5
Slaughter of animals without license...	—	—	—	1	—	1	—	—	—	2
Unlicensed fish stall	—	—	—	—	—	5	—	—	1	6
Neglect to cement floor of eating houses	—	12	1	4	3	8	15	—	2	45
Polluting public market	—	1	—	—	—	—	—	—	—	1
Bakery used for other purposes	—	2	—	1	—	—	2	—	—	5
Unlicensed cotton depôt	—	1	—	1	—	—	—	—	—	2
Employing unclean workmen in bakery	—	—	3	—	3	—	1	—	—	7
Storing offensive copra	—	—	1	—	—	—	—	—	—	1
Loathsome disease in eating houses	—	—	—	3	—	—	—	—	—	3
Stalling in verandah	—	—	—	2	—	—	—	—	—	2
Unregistered goat pen	—	—	—	14	—	—	—	—	—	14
Foul well	—	—	—	2	—	—	—	—	—	2
Uncemented floor of bakery	—	—	—	1	1	—	—	—	—	2
Unlicensed straw depôt	—	—	—	—	1	—	—	—	—	1
Not cementing surroundings of public bathing places	—	—	—	—	1	—	—	—	—	1
Neglect to improve insanitary buildings, after notice	—	1	—	—	—	—	—	—	—	1
Unlicensed firewood depôt	—	1	—	2	—	—	1	—	—	4
Workmen with loathsome diseases in bakery	—	—	1	—	—	—	—	—	—	1
Not disinfecting a house of enteric	—	—	—	1	—	—	—	—	—	1
Eating house near public latrine	—	—	—	1	—	—	—	—	—	1
Unlicensed laundrymen	—	—	—	—	6	—	—	—	—	6
Neglect to improve surroundings of bakery	—	—	—	—	3	—	—	—	—	3
Unregistered dairymen	—	—	—	—	1	—	1	—	—	2
Unregistered milk vendor	1	—	—	—	—	—	—	—	—	1
Total	68	830	540	648	660	693	666	535	377	5017

TABLE L.
Complaints and fines imposed during the year 1907.
NATURE OF OFFENCE.

MONTH.	Depôt.	Miscellaneous.	Lids or parts of carts left open whilst at work	Public latrines.	Non reporting of vacations.	Coolies without badges.	Neglect to conserve.	Neglect to clean buckets.	Neglect to supply Cool-dust.	Neglect of Day cooly.	Neglect of Special cooly.	Neglect to return Cart chits.	Late arrival of Carts at Depôt.	Amount. Rs. o.
January ...	—	23	13	17	—	—	25	25	14	2	1	—	—	44·0
February...	—	44	9	25	—	3	104	9	56	6	—	3	1	92·75
March ...	1	51	12	—	—	3	89	195	86	3	1	—	—	118·30
April ...	9	79	26	66	12	10	378	615	153	56	4	1	—	450·88
May ...	4	66	8	24	14	8	182	172	66	22	—	—	—	177·92
June ...	—	23	8	34	6	6	222	82	83	40	—	—	—	166·28
<i>New Contract</i>														
July ...	27	44	18	32	—	2	101	198	116	16	1	17	31	192·96
August ...	6	55	15	27	1	—	73	150	80	13	1	15	24	147·20
September	—	17	—	8	1	—	54	68	71	5	—	5	10	76·48
October ...	1	24	14	14	7	—	80	53	66	10	—	—	—	86·8
November	—	32	13	23	3	—	79	52	46	5	2	3	—	82·56
December	16	21	7	12	4	—	62	27	34	3	—	—	6	61·44
Total ...	64	479	143	282	38	32	1449	1646	871	181	10	44	72	1696·85

TABLE LI. (a)

Conservancy Branch, Revenue and Expenditure in 1907.

Division.	* Total amount collected.		† Total amount due.		Buckets daily conserved in Private Premises.	Buckets daily conserved in Public Latrines.	Cesspits cleared.	
	Rs.	c.	Rs.	c.			By Conservancy Contractor.	By Private Contractors.
I. ...	30,723	80	33,330	20	1,486	—	8	6
II. ...	37,191	10	39,568	12	1,844	‡57	37	20
III. ...	45,819	0	49,458	0	2,613	¶111	100	66
IV. ...	45,779	50	50,239	0	2,876	120	51	69
Total ...	159,513	40	172,595	32	8,819	288	196	161

* Includes arrears of previous years and advance payments.

† Represents amounts due for the year under reference.

‡ 13 Standard Buckets.

¶ 5 Standard Buckets.

Amounts paid to Contractor.

(a) Bulls and Conservancy of Dry-earth closets	.....	Rs. 104,463·57
(b) On account of clearing Cess-pits privies	.....	Rs. 3,682·72
Total	.....	Rs. 109,141·23

Fines imposed by Chairman on Contractor Rs. 1,696·85.

TABLE LI. (b)

Conservancy Receipts and Expenditure.

Receipts.		Rs.	c.	Expenditure.		Rs.	c.
52	By recoveries for conserving latrines	159,513	40	To vote No. 109	Salaries, wages, allowances, &c. ...	17,504	40
53	By buckets sold	256	0	" 110	Conservancy of dry-earth closets	64,348	2
54	By disinfectants sold	1,008	96	" 111	Supply of coir dust	6,384	13
55	By clearing cesspit privies	853	25	" 112	Stationery, &c. ...	418	97
56	By lease of grass land at night-soil Depôt	4,960	0	" 113	Refunds	563	53
				" 114	Hire of Bulls	40,397	29
				" 115	Construction and repair of Night-soil carts	9,991	94
				" 116	Miscellaneous	634	18
				" 117	Post card reminders and postage	270	0
				" 118	Supervisors Uniforms, &c. ...	685	50
				" 119	Cost of disinfectants	1,136	79
				" 120	Repairs of buildings, (carts and cattle sheds)	904	16
				" 121	Repairs and maintenance of roads Night-soil Depôt	3,406	28
				" 122	Rent of Night-soil Depôt, Naharanpitiya	1,638	0
				" 123	Septic Tanks	424	8
				" 124	Metalling, Naharanpitiya Road	2,560	60
				" 125	Construction of new buckets and sale of standard buckets from stock...	951	45
				Total	Total	152,219	32
				Total	Total	166,591	61

TABLE LII. (a)

**Changes in the personnel of the staff (Sanitation Branch) Public Health
Department, during the year, 1907.**

Name.	Post.	Appointment, promotion, transfer, dis- missar or resignation.	Date.	Remarks.			
W. La Brooy	... Typist	... Transfer	... March 28,	To Conservancy Branch, <i>vice</i> S. P. Fernando, who was transferred from Conservancy Branch.			
S. P. Fernando	... Typist	... Transfer	... March 28,	For the post held by W. La Brooy.			
D. J. E. Caldera	} ... Sanitary Inspectors...	Dismissal	... March 26,	To Conservancy Branch, as Supervisor.			
A. W. Anderson		Resignation.	April 1,				
J. M. Hall		Promotion.	May 1,				
P. O'Connel	... Overseer, L. W. Gang.	...	May 1,	To Conservancy Branch, as Supervisor.			
P. A. Varney	... Overseer, L. W. Gang.	Promotion.	May 1,	Overseer, Mosquito Gang, promoted to the post left vacant by the transfer of P. O'Connel to Conservancy Branch.			
J. Dabera F. E. Abeyasekare H. W. Davidson	} Sanitary Inspectors ...	Promotion.	May 1,	From Conservancy Branch as Supervisors to fill up the of Caldera, Anderson and Hall.			
Caroline Caldera					... Midwife	... Dismissal	... May 18,
S. C. Forbes					... Asst : Reg : Clerk	... Appointment	May 25,	New Hand.
M. E. Akbar C. B. Brohier W. E. Sittampalam	} Enteric Inspectors ...	Appointment	June 1,	From the Conservancy Branch			
S. L. Touesaint					...	Promotion.	June 1,
M. H. C. Cooray					... Statistical Clerk	...	June 1,	From the Conservancy Branch
A. P. Maas	... Overseer, Mos : Gang.	Appointment	July 1,	To the post left vacant by the promotion of P. A. Varney to the post of L. W. Gang.			
P. A. Varney	... Overseer, L. W. Gang.	Transfer	... October 9,	To Conservancy Branch as Supervisor.			
A. P. Maas	... Overseer, L. W. Gang.	Promotion.	Nov. 11,	From Mosquito Gang.			
T. S. Koelmeyer	... Overseer, Mos : Gang.	Appointment	Nov. 11,	To the post rendered vacant by the promotion of A. P. Maas.			
Amy de Silva	... Midwife	... Appointment	Nov. 26,	To the post left vacant by the dismissal of Caroline Caldera.			

TABLE LII. (b)

Staff changes (Conservancy Branch) in 1907.

Mr. B. H. Jansz, Clerk, died on February 1, 1907, and Mr. C. W. Anthonisz, was appointed on April 1, 1907, in his place.

Mr. S. P. Fernando, Clerk, was transferred from this Branch to the Sanitary Branch on March 28, 1907, in place of Mr. W. E. La'Brooy, who was attached to this Department.

Mr. M. H. C. Cooray, Clerk, was promoted to the Sanitary Branch on June 1, 1907, as Statistical Clerk, and Mr. R. C. Mackeller, was appointed in his place.

Supervisors J. Dabera, F. E. Abeyesekera, and H. W. Davidson, were promoted Inspectors on May 1, 1907, and their places were filled up by Messrs. C. E. Seibel, P. O'Connel, and A. D. J. Wijeyeratne.

Supervisor D. W. B. Mylvaganam, was dismissed on June 13, 1907, and Mr. P. A. Varney, appointed in his place on October 10, 1907.

Table III (a)

The following table shows the results of the analysis of variance for the data in Table I. The values in parentheses are the degrees of freedom for each source of variation.

Source of Variation	Sum of Squares	Mean Square	F	P
Between Groups	12.5	1.25	10.0	0.01
Within Groups	10.0	0.25		
Total	22.5			

The results of the analysis of variance show that there is a significant difference between the groups (F = 10.0, P = 0.01). The mean square for between groups is 1.25, and the mean square for within groups is 0.25. The total sum of squares is 22.5.



