Report of the Medical Officer of Health / Municipality of Colombo.

MUNICIPALITY OF COLOMBO.

REPORT

XXII

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR

1927.

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CONTENTS.

STATISTICAL SUMMARY.

Mean temperature	...	...	81·0° F.
Rainfall ...	...	...	91·28 inches.
Average rainfall for the last 20 years	...	...	86·53 inches.
Area within Municipal Council's limits, exclusive of lake	...		8,282 acres.
Population by Census of 1921	...	...	244,163
Estimated population as at July 1, 1927	...	...	261,795
Average density per acre	...	...	31·6
Number of separately assessed premises	...	...	21,800
Number of live births registered	...	...	8,491
Birth-rate per 1,000 of population	...	...	32·4
Number of deaths among infants	...	...	1,584
Death-rate per 1,000 births	...	...	187
Percentage of infant deaths to total mortality	...		21·9
Stillbirths ...	...	...	612
Number of deaths ...	...	...	7,217
Crude death-rate ...	...	...	27·6
Corrected death-rate ...	...	...	22·7
Pneumonia ...	Number of deaths from	...	1,003
	Death-rate	...	3·83 per 1,000.
Phthisis ...	Number of deaths from	...	594
	Death-rate	...	2·27 per 1,000.
Enteric fever ...	Number of deaths from	...	124
	Death-rate	...	0·47 per 1,000.
Plague ...	Number of deaths from	...	76*
	Death-rate	...	0·29 per 1,000.
Diarrhœa and enteritis ...	Number of deaths from	...	519
	Death-rate	...	1·98 per 1,000.

* Inclusive of deaths of Colombo cases sent to the Infectious Diseases Hospital which is beyond Municipal limits.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR 1927.

INTRODUCTION.

I HAVE the honour to submit the Administration Report of the Public Health Department for the year 1927.

I assumed duties as Medical Officer of Health on April 1, 1927, on the retirement of Dr. Wm. Marshall Philip, who had been Medical Officer of Health for Colombo for nearly 25 years, during which period his administrative record shows many outstanding achievements to his credit and the permanent improvement of the health of the city. It was with great pleasure therefore that all those who were associated with him heard of the high honour that was conferred upon him by His Majesty the King by the bestowal of the order of C.B.E.

I desire to take this opportunity of recording my personal indebtedness to him for much valuable advice and guidance, always cordially granted, during my 13 years' association with him as his Chief Assistant.

The health of the city during the year under review was very satisfactory. Without repeating more than it is necessary the details which are to be found in this report, I should like to point out certain salient features of the vital statistics of 1927.

The corrected death-rate was 22·7, as against 23·4 in the previous year, which is, I am happy to say, the lowest death-rate so far recorded in Colombo.

The birth-rate was 32·4 per 1,000 of estimated population, as against 31·3 per 1,000 in the previous year and 28·5 per 1,000 the average for the preceding 10 years. The birth-rate, with the exception of the year 1921, when it was 35·7 per 1,000, was the highest recorded in Colombo. The causes of the abnormally high birth-rate recorded in 1921 were set out in the 1926 report.

The infantile mortality rate was 187 per 1,000 births, as against 204 in the previous year. This rate too is the lowest so far recorded in Colombo.

Coming now to the infectious diseases, the incidence of enteric fever was the lowest on record, namely, 206 cases, as against 249 in the previous year and 229 in 1914.

Chickenpox, measles, continued fever, phthisis, influenza, diarrhœa, and dysentery also showed an improvement over the previous year, while plague and pneumonia showed an increased incidence. For full particulars see report under appropriate heads.

Though smallpox was introduced on two occasions from South India no local cases occurred. This should not, however, engender a false sense of security. Under the present quarantine regulations Colombo is always exposed to this danger, and the only way to safeguard the city against it is for the population to protect itself by vaccination. Vaccination done once in infancy does not confer life-long immunity. Re-vaccination is necessary and should be performed at least twice at intervals of seven years. Primary vaccination alone being compulsory, re-vaccination must be left to the good sense and judgment of the people themselves.

Plague, after having been practically wiped out of the city, again gained a footing in Colombo and elsewhere through re-importation of infection, and eighty odd cases occurred, as compared with thirteen in the previous year. A scheme for the disinfestation of all imported grain is now under consideration, and it is hoped that some satisfactory and workable method will soon be found.

Though the year under review showed, on the whole, an improvement over previous years in respect of the morbidity and mortality rates, yet our achievements so far fall far short of the ideal. The pneumonia, phthisis, enteric, diarrhœal, and infantile mortality rates are still too high, and compare badly with corresponding rates in Western cities.

An analysis of the statistical evidence in the current and previous reports furnishes proof that the principal causes that maintain our morbidity and mortality rates so high are bad housing conditions and bad drainage. That being so, the issues to which we should pay most attention and place well in the forefront of future activities are the improvement of the housing conditions of the people and the completion of the sewerage system and drainage of the town. The effects produced by these evils are not only direct and immediate but indirect and life-long. The immediate effects are seen in disease and death, but the indirect ones are not so obvious. Exposure to an unwholesome environment, generation after generation, leads to physical and moral degeneration and invalidism which becomes later a burden and a loss to the country. Money is, unfortunately, the ruling force in Municipal administration, and our activities are limited by the amount available. But if the citizens of Colombo realize that "a nation's health is a nation's most precious possession" and that money spent on the adoption of measures for the *prevention* of disease is money invested in gilt-edged securities, then they must find the funds necessary for the carrying out of the pressing needs of the city.

I wish in conclusion to record my grateful appreciation of the loyal assistance and the excellent work done during the year both by the superior and subordinate staffs who so splendidly responded to the call for special effort that I made on taking up the duties of my office.

I wish also to express the indebtedness of this Department to the Colombo Ladies' League for their kind co-operation with us in the matter of the improvement of the dairies and bakeries in the city.

Part I.—Vital Statistics.

I.—METEOROLOGY.

Temperature.—The mean temperature for the year was 81·0°, as compared with 80·8° the average mean for the last 20 years. The monthly mean temperature ranged from a minimum of 79·4° in January to a maximum of 82·2° in April.

Rainfall.—A total of 91·28 inches of rainfall was recorded at the Colombo Observatory during 1927, as against 104·98 inches in 1926 and 86·53 inches the average for the previous 20 years. The monthly record varied from a minimum of 0·52 inches in August to a maximum of 22·65 inches in May. The highest record for any twenty-four hours was 4·18 inches on May 1–2.

Humidity.—The mean humidity for the year was 81 per cent. It ranged between 76 per cent. in December to 84 per cent. in June.

(1) *Statistics.*

(Supplied by the Superintendent of the Colombo Observatory.)

(*a*) Average Monthly Mean Temperature at Colombo Observatory (Cinnamon Gardens). 20 Years to 1927 inclusive.

	°F.
January	79·1
February	79·8
March	81·4
April	82·6
May	82·5
June	81·6
July	81·0
August	81·2
September	81·0
October	80·4
November	79·7
December	79·2
Year	80·8

(*b*) Monthly Mean Temperature at Colombo Observatory during 1927.

	°F.
January	79·4
February	80·2
March	81·0
April	82·2
May	82·1
June	81·3
July	81·1
August	82·0
September	81·0
October	80·8
November	80·1
December	80·4
Year	81·0

(*c*) Average Monthly Mean Pressure at Colombo Observatory (Cinnamon Gardens) reduced to Standard Gravity and Mean Sea Level. 16 Years to 1927 inclusive.

	Inches.
January	29·859
February	29·853
March	29·832
April	29·798
May	29·782
June	29·783
July	29·797
August	29·811
September	29·818
October	29·830
November	29·824
December	29·843
Year	29·819

(*d*) Monthly Mean Pressure at Colombo Observatory during 1927 (reduced to Standard Gravity and Mean Sea Level).

	Inches.
January	29·824
February	29·854
March	29·780
April	29·782
May	29·796
June	29·800
July	29·806
August	29·816
September	29·806
October	29·872
November	29·854
December	29·866
Year	29·821

(*e*) Average Monthly Rainfall at Colombo Observatory (Cinnamon Gardens). 20 Years to 1927 inclusive.

	Inches.
January	3·56
February	2·06
March	4·78
April	8·14
May	13·84
June	8·27
July	6·52
August	3·11
September	6·52
October	12·94
November	11·49
December	5·30
Year	86·53

(*f*) Monthly Rainfall at Colombo Observatory (Cinnamon Gardens) and Colombo Fort during 1927. (Observatory Gauge 25 Feet and Fort 70 Feet above Mean Sea Level.)

	Colombo Observatory. Inches.	Colombo Fort. Inches.
January	5·66	4·43
February	3·67	4·30
March	5·91	6·83
April	11·00	13·40
May	22·65	15·30
June	8·64	6·05
July	2·87	2·61
August	0·52	0·66
September	9·18	8·77
October	10·12	6·20
November	7·43	4·89
December	3·63	3·41
Year	91·28	76·85

(*g*) Average Monthly Mean Humidity at Colombo Observatory (Cinnamon Gardens). 19 Years to 1927 inclusive.

	Per Cent.
January	77
February	77
March	79
April	80
May	81
June	81
July	81
August	80
September	80
October	82
November	82
December	79
Year	80

(*h*) Monthly Mean Humidity at Colombo Observatory during 1927.

	Per Cent.
January	80
February	80
March	83
April	81
May	82
June	84
July	82
August	80
September	80
October	82
November	80
December	76
Year	81

With reference to the rainfall at Fort, it should be noted that this gauge is not only higher above sea level, but higher above adjacent ground level, and for this reason its readings might be expected to be less than those of a gauge at or near ground level. The difference between it and the readings at the Observatory is thus not purely a climatic one, but largely a matter of the difference in exposure of the two gauges.

The Observatory gauge should be taken as the standard.

The humidity in tables (*g*) and (*h*) is the mean of the humidities derived from the maximum, both dry and wet, and the minimum, dry and wet.

II.—POPULATION.

The population of Colombo, as estimated to the middle of the year 1927, was 261,795. This is on the basis of the 1921 Census, which has been regarded as abnormally low. An estimate based on the old estimates prior to 1921 would give us a population at the middle of 1927 of about 333,395, which would appear to be nearer the correct figure than 261,795. However, for obvious reasons, the various rates in this report have been calculated on the estimated population, namely 261,795.

The overcrowding in the St. Paul's and San Sebastian Wards is seen in Statement 3, which shows a density of 159·8 and 101·8 per acre respectively.

(2) *Population by Race.*

Race.	Population enumerated at the Census of March, 1921.	Population estimated to middle of 1927.
All Races	244,163 ...	261,795
Europeans	2,836 ...	3,041
Burghers	14,863 ...	15,936
Sinhalese	114,600 ...	122,876
Tamils	54,153 ...	58,063
Moors	39,692 ...	42,558
Malays	5,852 ...	6,275
Others	12,167 ...	13,046

(3) *Area and Estimated Population, 1927.*

(Estimate based on Census of 1921.)

Ward.	Total Area in Acres.	Estimated Population.	Density per Acre.
Fort	237 ...	2,884 ...	12·2
Pettah	129 ...	8,150 ...	63·2
San Sebastian	121 ...	12,322 ...	101·8
St. Paul's	157 ...	25,085 ...	159·8
Kotahena and Mutwal ...	1,716 ...	49,505 ...	28·8
New Bazaar	289 ...	25,027 ...	86·6
Maradana North, South, and Dematagoda	1,773 ...	61,682 ...	34·8
Slave Island	331 ...	23,121 ...	69·9
Kollupitiya and Cinnamon Gardens	1,468 ...	25,467 ...	17·3
Bambalapitiya, Timbirigasyaya, and Wellawatta ...	2,061 ...	28,552 ...	13·9
Total ...	8,282	261,795	31·6

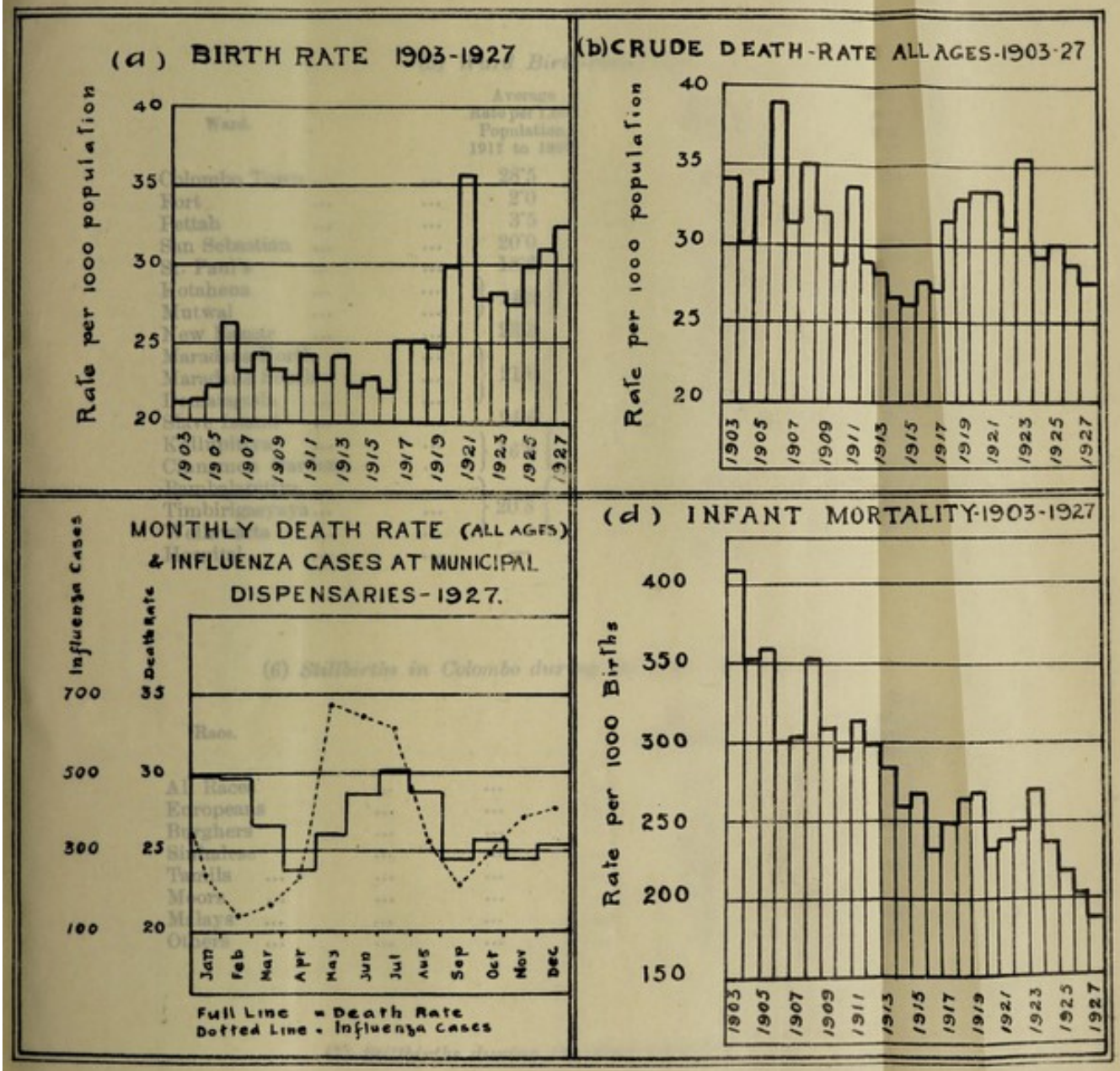
III.—BIRTHS.

There were 8,491 births registered in Colombo during the year, representing a birth-rate of 32·4 per 1,000 of estimated population, as against 31·3 per thousand in the previous year and 28·5 per thousand the average for the previous ten years. With the exception of the year 1921, when the rate was 35·7 per thousand, the 1927 birth-rate is the highest recorded in Colombo. *Vide* Diagram I.

Of the races, the highest rate, namely, 48·4, was, as usual, amongst the Malays, as against their average 44·0. Then came the Sinhalese with a rate of 40·1, as against their average 35·9, followed closely by the Burghers with 37·3, as against their average of 35·0. The lowest rate as usual was amongst the Tamils.

Stillbirths.—There were 612 stillbirths, representing a rate of 67·2 per thousand of total births. The highest rate was amongst the Tamils, *vide* Statement 6, a large proportion of whom belong to the poorest working class in Colombo and whose personal and domestic habits are very bad owing to their ignorance and poverty.

DIAGRAM Nº I



Survey Dept. Ceylon.
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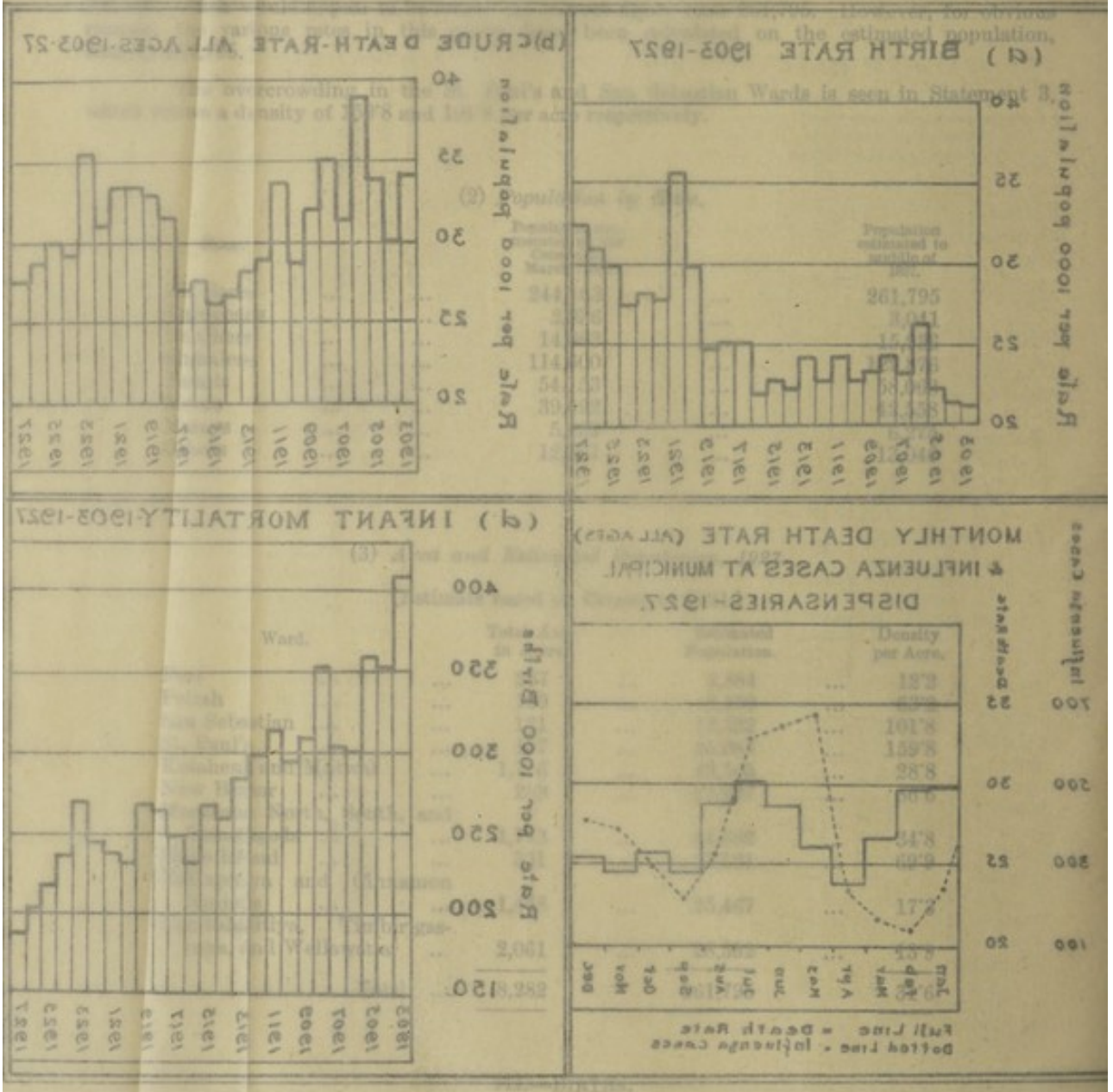
DIAGRAM No 1


(a) BIRTH RATE 1903-1927
Rate per 1000 population
Population estimated to middle of
261,795
(b) CRUDE DEATH-RATE ALL AGES-1903-27
Rate per 1000 Population
(c) INFANT MORTALITY-1903-1927
Rate per 1000 Births
MONTHLY DEATH RATE (ALL AGES)
& INFLUENZA CASES AT MUNICIPAL
DISPENSARIES-1927
Density per Acre.
101'8
159'8
28'8
34'8
69'9
17'3
Full line = Death Rate
Dotted line = Influenza Cases

(4) *Racial Birth-rates, 1927.*

Race.	Average Rate per 1,000 Population, 1917 to 1926.	Births, 1927.	Birth-rate per 1,000 Population, 1927.
All Races	28·5	8,491	32·4
Europeans	27·4	91	29·9
Burghers	35·0	594	37·3
Sinhalese	35·9	4,925	40·1
Tamils	16·9	1,176	20·3
Moors	23·9	1,199	28·2
Malays	44·0	304	48·4
Others	10·8	202	15·5

(5) *Ward Birth-rates, 1927.*

Ward.	Average Rate per 1,000 Population, 1917 to 1926.	Number of Births, 1927.	Birth-rate per 1,000 Population, 1927.
Colombo Town	28·5	8,491	32·4
Fort	2·0	3	1·0
Pettah	3·5	27	3·3
San Sebastian	20·0	283	23·0
St. Paul's	18·6	494	19·7
Kotahena	24·2	581	19·7
Mutwal		636	31·7
New Bazaar	23·3	646	25·8
Maradana North	21·0	587	25·4
Maradana South		292	14·7
Dematagoda		481	25·7
Slave Island	24·6	682	29·5
Kollupitiya	16·8	263	17·1
Cinnamon Gardens		90	8·9
Bambalapitiya	20·8	162	15·9
Timbirigasyaya		223	33·0
Wellawatta		270	23·3
Hospital	—	2,771	—

(6) *Stillbirths in Colombo during the Year 1927, by Race.*

Race.	No. of Stillbirths.	Rate per 1,000 Births (Live and Still.)
All Races	612	67·2
Europeans	3	31·9
Burghers	29	46·5
Sinhalese	375	70·8
Tamils	109	84·8
Moors	69	54·5
Malays	14	44·0
Others	13	60·5

(7) *Stillbirths during the Year 1927, by Ward.*

Statement Showing the Number of Stillbirths, by Ward, and the Rates per 1,000 Total Births (Live and Still).

Ward.	No. of Stillbirths.	Rate per 1,000 of Total Births (Live and Still).	Ward.	No. of Stillbirths.	Rate per 1,000 of Total Births, (Live and Still).
Colombo Town	612	67·2	Maradana South	13	42·6
Fort	—	—	Dematagoda	24	47·5
Pettah	—	—	Slave Island	32	44·8
San Sebastian	12	40·7	Kollupitiya	12	43·6
St. Paul's	47	86·9	Cinnamon Gardens	2	21·7
Kotahena	30	49·1	Bambalapitiya	5	29·9
Mutwal	23	34·9	Timbirigasyaya	10	42·9
New Bazaar	38	55·6	Wellawatta	10	35·7
Maradana North	24	39·3	Hospital	330	106·4

IV.—Deaths.

The classification of causes of deaths given in this report is in accordance with the third revision of the International List as amended to suit local conditions and adopted by the Registrar-General.

(*a*) *General Death-rate.*

There were 7,217 deaths registered during 1927, as against 7,466 deaths in 1926, representing a crude death-rate of 27·6, as against 28·8 in 1926 and 31·3 the average for the preceeding ten years 1917–1926. Excluding the deaths of 1,459 non-residents in Colombo hospitals and including the deaths of Colombo residents in hospitals outside Colombo, the corrected death-rate was 22·7, which is the lowest corrected death-rate so far recorded in Colombo.

(*b*) *Ward Death-rates.*

When corrected for deaths in hospitals of town residents, viz., 1,287, the ward with the highest death-rate was Mutwal (30·1) and the one with the lowest death-rate was Cinnamon Gardens (6·6).

(8) *Colombo Town Ward Death-rates for the Year 1927.*

Ward.	Average Crude Death-rate, 1917 to 1926.	No. of Deaths, 1927.	Crude Death-rate, 1927.	Death-rate corrected for Deaths in Colombo Hospitals, 1927.	Death-rate corrected for Deaths in Colombo Hospitals, previous Year.	Increase or Decrease of 1927 corrected rate when compared with corrected rate for previous Year.
Colombo Town	31·3	7,217	27·6	22·0	23·4	−1·4
Fort	10·5	20	6·9	9·7	13·7	−4·0
Pettah	8·6	54	6·6	14·1	10·5	+3·6
San Sebastian	21·4	237	19·2	23·3	19·4	+3·9
St. Paul's	24·8	451	18·0	22·3	24·5	−2·2
Kotahena	23·2	409	13·9	17·1	18·3	−1·2
Mutwal		513	25·6	30·1	30·8	−0·7
New Bazaar	25·6	593	23·7	28·0	24·5	+3·5
Maradana North	20·0	439	19·0	25·2	26·0	−0·8
Maradana South		261	13·1	18·7	17·3	+1·4
Dematagoda		346	18·5	25·5	30·2	−4·7
Slave Island	25·2	410	17·7	22·1	26·6	−4·5
Kollupitiya	17·7	169	11·0	15·4	15·2	+0·2
Cinnamon Gardens		46	4·5	6·6	8·8	−2·2
Bambalapitiya	12·7	75	7·3	11·3	13·8	−2·5
Timbirigasyaya		142	21·0	27·6	25·6	+2·0
Wellawatta		182	15·7	21·0	19·4	+1·6
Hospitals	—	2,870	—	—	—	—

Note.—(1) The Colombo town crude death-rate includes 1,459 deaths of non-residents in Colombo hospitals and the Ward crude death-rates exclude 1,287 deaths of town residents in hospitals.

(2) In working out the corrected death-rate for Mutwal Ward the number of deaths in the Home for Vagrants and House of Detention (which institutions are situated in Mutwal Ward) are deducted.

(*c*) *Racial Death-rates.*

The highest death-rate was again amongst the Malays, 33·5, as against 37·9 the average for the preceding ten years and 35·6 the rate for the previous year. This is a slight improvement. The lowest rate was amongst the Europeans, 16·4, as against their decennial average of 18·3.

(9) *Racial Death-rates, 1927.*

Race.	Average Crude Death-rate, 1917 to 1926.	No. of Deaths, 1927.	Crude Death-rate, 1927.	Death-rate corrected for Deaths of Non-residents in Colombo Hospitals.	Increase or Decrease of Crude Death-rate, 1927, when compared with Average Crude Death-rate.	Decrease due to correction for Deaths of Non-residents in Colombo Hospitals.	Death-rate corrected for Deaths of Colombo Residents in Hospitals outside Colombo.	Death-rate further corrected for Age and Sex Distribution.
All Races	31·3	7,217	27·6	22·0	−3·7	5·6	22·7	26·5
Europeans	18·3	50	16·4	11·5	−1·9	4·9		
Burghers	23·0	320	20·1	17·9	−2·9	2·2		
Sinhalese	35·6	3,974	32·3	22·1	−3·3	10·2		
Tamils	27·4	1,328	22·9	21·1	−4·5	1·8		
Moors	29·6	1,054	24·8	24·4	−4·8	0·4		
Malays	37·9	210	33·5	32·8	−4·4	0·7		
Others	22·7	281	21·5	19·3	−1·2	2·2		

(10) *Births and Deaths, and the Infant Mortality, for each Ward of the Town of Colombo during the Year 1927.*

WARD.	BIRTHS.										DEATHS.										No. of Infant Deaths.
	Total Births.			Nationality.							Total Deaths.			Nationality.							
	Persons.	Males.	Females.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	Persons.	Males.	Females.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	
Colombo Town ...	8,491	4,349	4,142	91	594	4,935	1,176	1,199	304	202	7,217	3,939	3,278	50	320	3,974	1,328	1,054	210	281	1,584
Fort	3	—	3	—	—	2	1	—	—	—	20	17	3	4	—	3	3	4	1	5	—
Pettah	27	12	15	—	—	13	6	3	3	2	54	40	14	—	1	8	21	16	1	7	7
San Sebastian	283	151	132	—	5	88	25	152	4	9	237	127	110	—	1	62	35	125	3	11	79
St. Paul's	494	291	203	—	7	78	231	147	3	28	451	236	215	—	1	80	212	132	3	23	141
Kotahena	581	286	295	—	58	315	148	45	8	7	409	220	189	1	23	213	123	38	5	6	125
Mutwal	636	340	296	2	27	451	74	57	9	16	513	256	257	—	27	367	56	44	4	15	133
New Bazaar	646	329	317	—	51	247	71	232	16	29	593	300	293	—	46	184	71	251	15	26	168
Maradana North ...	587	285	302	—	49	260	82	143	36	17	439	218	221	—	16	195	72	112	22	22	125
Maradana South ...	292	156	136	1	12	153	39	61	19	7	261	147	114	3	13	128	45	48	15	9	71
Dematagoda	481	248	233	—	37	278	36	88	34	8	346	189	157	1	20	230	31	41	18	5	97
Slave Island	682	351	331	5	48	231	99	131	129	39	410	215	195	3	6	121	94	69	92	25	107
Kollupitiya	263	146	117	12	19	130	37	41	14	10	169	84	85	6	18	81	28	20	8	8	42
Cinnamon Gardens ...	90	41	49	7	7	39	20	12	2	3	46	33	13	4	3	19	15	5	—	—	14
Bambalapitiya ...	162	72	90	6	37	84	24	6	—	5	75	34	41	1	8	46	15	2	—	3	17
Timbirigasyaya ...	223	110	113	29	9	156	23	5	—	1	142	74	68	5	2	107	21	4	1	2	50
Wellawatta	270	131	139	3	44	147	31	30	7	8	182	85	97	—	31	97	29	21	1	3	44
Hospital (Town residents)	2,771	1,400	1,371	26	184	2,253	229	46	20	13	1,287	753	534	7	68	705	319	95	17	76	364
Hospital (Untraced)											124	88	36	—	2	68	38	10	—	6	
Hospital (Non-residents)											1,459	823	636	15	34	1,260	100	17	4	29	

V.—Principal Causes of Death.

Pneumonia was a veritable "Captain of the Men of Death." It was responsible for 1,003 or 14 per cent. of the total deaths registered in the town during 1927. Next in order came pulmonary tuberculosis with 594 or 8·2 per cent., congenital debility with 523 or 7·2 per cent., and diarrhœa and enteritis with 519 or 7·2 per cent. of the total deaths.

Compared with 1926, bronchitis, diarrhœa and enteritis, dysentery, enteric fever, malaria, and influenza showed a decreased mortality, while pulmonary tuberculosis, pneumonia, and plague showed an increased mortality.

Of the minor causes of deaths, tetanus and diphtheria showed a decrease and rabies showed a slight increase.

(11) *Principal Causes of Death during the Year 1927.*

Cause of Death.	No. of Deaths.	
*Pulmonary Tuberculosis	594	
Tuberculosis of the Meninges and Central Nervous System	3	
Tuberculosis of the Intestines and Peritoneum.	21	
Tuberculosis of the Vertebral Column ...	4	
Tuberculosis of the Joints	1	639 Tuberculous Diseases.
Tuberculosis of the Lymphatic System (mesenteric and retropenitoneal glands excepted).	6	
Disseminated Tuberculosis	4	
Tubercular Sinus	6	
Pneumonia (and Broncho-Pneumonia) ...	1,003	
Bronchitis	176	
Diarrhœa and Enteritis	519	673 Total Diarrhœal.
Dysentery	154	
*Enteric Fever	124	
Pyrexia	61	
Malaria	81	
*Plague	46	
Influenza	296	
Infantile Convulsions (under five years) ...	318	
Congenital Debility (under one year) ...	523	

* Those marked with an asterisk are notifiable infectious diseases.

(12) *Certain Minor Causes of Death, 1927.*

Cause of Death.	No. of Deaths.	Cause of Death.	No. of Deaths.
Anchylostomiasis ...	127	*Diphtheria ...	4
Other Intestinal Parasites	181	Whooping Cough ...	5
Paralysis (cause unspecified)	105	Rabies	14
Rickets	45	*Smallpox	1
Cancer	107	*Cholera	—
Tetanus	56	Lethargic Encephalitis ...	3
*Measles	—		

* Those marked with an asterisk are notifiable infections diseases.

(13) *Causes of Deaths registered in Colombo Town during the Year 1927.*

Causes of Death.	All Races.	Nationality.						
		Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
All Causes ...	7,217	50	320	3,974	1,328	1,054	210	281
I.—Epidemic, Endemic, and Infectious Diseases:—								
1.—Epidemic and Endemic Diseases ...	731	7	27	336	165	123	20	53
2.—Infectious Diseases—								
a. Tuberculous Diseases ...	639	5	27	382	96	85	23	21
b. Venereal Diseases... ...	37	—	—	29	3	3	1	1
c. Other Infectious Diseases ...	136	2	10	67	29	17	4	7
II.—General Diseases not in Class I.								
1.—Cancer and Malignant Diseases ...	107	—	9	71	17	8	—	2
2.—Other General Diseases not in Class I.	191	2	15	110	25	28	7	4
III.—Diseases of the Nervous System and Organs of Special Sense ...	587	5	33	313	95	98	28	15
IV.—Diseases of the Circulatory System ...	233	9	20	121	39	31	2	11
V.—Diseases of the Respiratory System ...	1,258	3	43	703	232	170	35	72
VI.—Diseases of the Digestive System ...	1,084	9	45	666	192	135	20	17
VII.—Non-Venereal Diseases of the Genito-Urinary System and Annexa ...	251	4	12	134	47	41	4	9
VIII.—The Puerperal State	194	—	9	116	36	23	7	3
IX.—Diseases of the Skin and of the Cellular Tissue	66	—	7	36	12	9	1	1
X.—Diseases of the Bones and of the Organs of Locomotion	5	—	—	4	—	—	—	1
XI.—Malformations	16	—	—	12	4	—	—	—
XII.—Early Infancy	676	—	20	347	147	116	26	20
XIII.—Old Age	495	1	28	244	76	108	21	17
XIV.—External Causes—								
1.—Suicide	14	1	1	4	4	—	1	3
2.—Homicide	29	—	—	18	2	4	—	5
3.—Judicial Hanging or Execution ...	21	—	—	16	2	1	—	2
4.—Accident and other External Violence.	155	1	5	87	40	7	2	13
XV.—Ill-defined Diseases	292	1	9	158	65	47	8	4

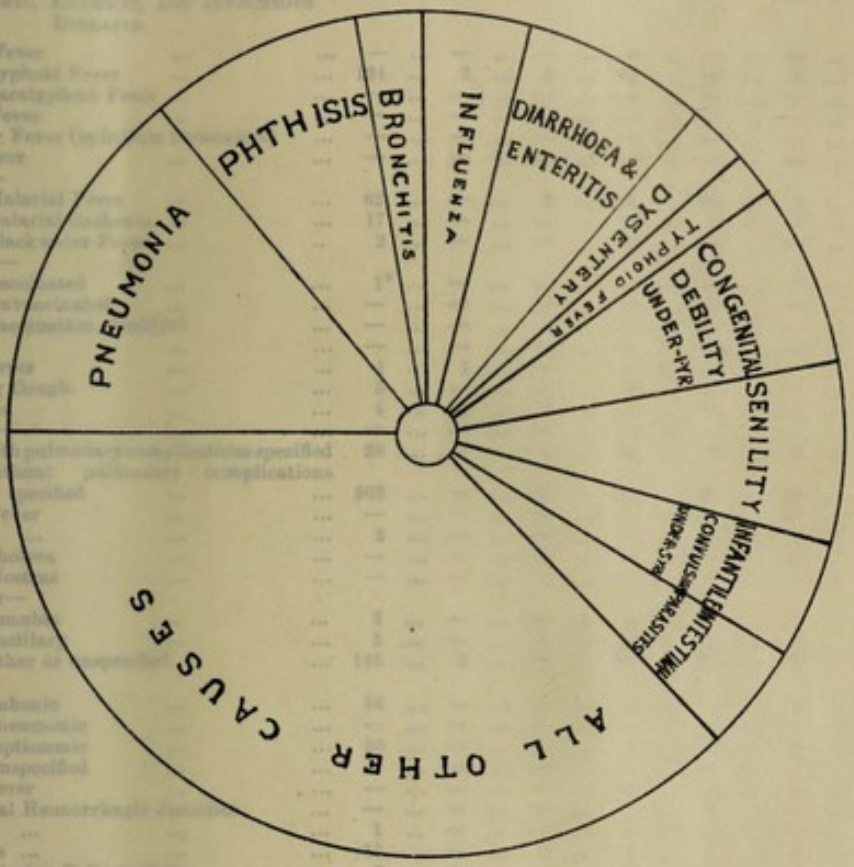
DIAGRAM Nº II

COMPARATIVE CHART

SHOWING

THE MORTALITY FROM THE PRINCIPAL DISEASES DURING 1927

(a) ALL AGES



(b) INFANTS

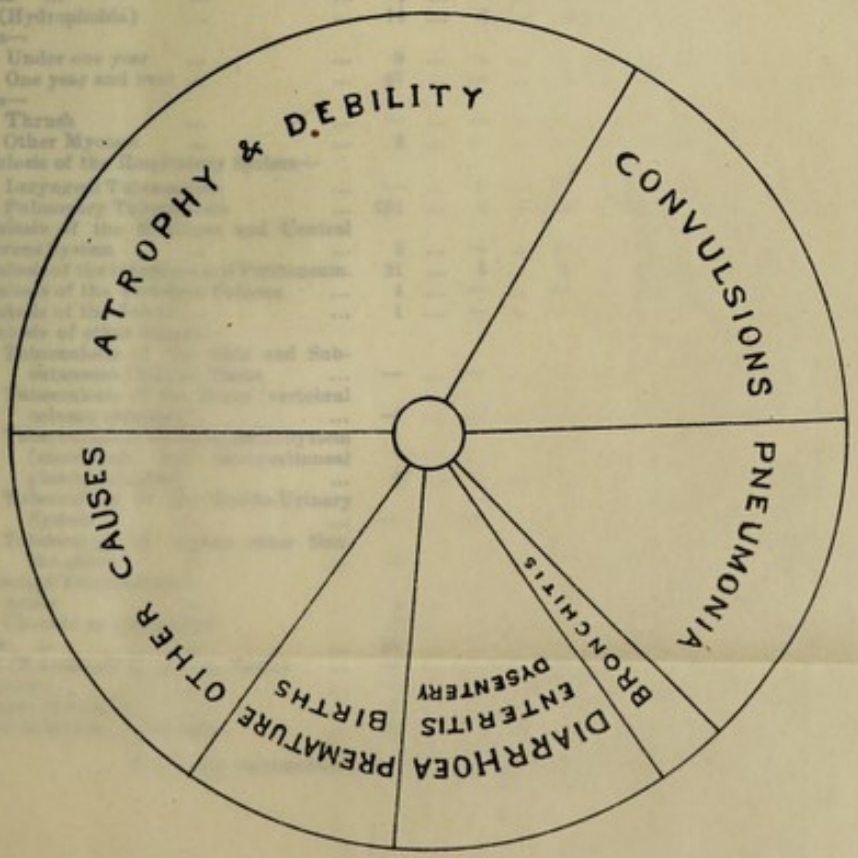


DIAGRAM No. II

COMPARATIVE CHART

SHOWING

THE MORTALITY FROM THE PRINCIPAL DISEASES

DURING 1927.

(a) ALL AGES

(b) INFANTS

(13) *Causes of Deaths, &c.*—contd.

Causes of Death.	All Races.	Nationality.									
		Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
I.—Epidemic, Endemic, and Infectious Diseases.								
1.—Enteric Fever	—	—	—	—	—	—	—	—
a. Typhoid Fever	124	2	2	84	10	6	3	17
b. Paratyphoid Fever	—	—	—	—	—	—	—	—
2.—Typhus Fever	—	—	—	—	—	—	—	—
3.—Relapsing Fever (spirillum obermeieri)	—	—	—	—	—	—	—	—
4.—Malta Fever	—	—	—	—	—	—	—	—
5.—Malaria—								
a. Malarial Fever	62	—	2	34	13	3	2	8
b. Malarial Cachexia	17	—	—	10	4	1	2	—
c. Blackwater Fever	2	—	—	2	—	—	—	—
6.—Smallpox—								
a. Vaccinated	1*	—	—	—	—	1	—	—
b. Unvaccinated	—	—	—	—	—	—	—	—
c. Vaccination doubtful	—	—	—	—	—	—	—	—
7.—Measles	—	—	—	—	—	—	—	—
8.—Scarlet Fever	1	1	—	—	—	—	—	—
9.—Whooping Cough	5	—	—	5	—	—	—	—
10.—Diphtheria	4	1	1	1	1	—	—	—
11.—Influenza—	—	—	—	—	—	—	—	—
a. With pulmonary complications specified	28	—	1	13	7	3	2	2
b. Without pulmonary complications specified	268	—	11	83	68	79	8	19
12.—Miliary Fever	—	—	—	—	—	—	—	—
13.—Mumps	2	—	—	—	1	1	—	—
14.—Asiatic Cholera	—	—	—	—	—	—	—	—
15.—Cholera Nostras	—	—	—	—	—	—	—	—
16.—Dysentery—								
a. Amœbic	4	—	—	3	1	—	—	—
b. Bacillary	5	—	1	2	2	—	—	—
c. Other or unspecified	145	3	5	80	37	15	3	2
17.—Plague—								
a. Bubonic	16	—	—	5	5	6	—	—
b. Pneumonic	—	—	—	—	—	—	—	—
c. Septicæmic	30	—	—	6	15	7	—	2
d. Unspecified	—	—	—	—	—	—	—	—
18.—Yellow Fever	—	—	—	—	—	—	—	—
19.—Spirochetal Hæmorrhagic Jaundice	—	—	—	—	—	—	—	—
20.—Leprosy	1	—	—	1	—	—	—	—
21.—Erysipelas	11	—	3	6	—	1	—	1
22.—Acute Anterior Poliomyelitis	1	—	—	1	—	—	—	—
23.—Lethargic Encephalitis	3	—	1	—	—	—	—	2
24.—Meningococcus Meningitis	—	—	—	—	—	—	—	—
25.—Other Epidemic and Endemic Diseases—								
a. Chickenpox	—	—	—	—	—	—	—	—
b. German Measles	—	—	—	—	—	—	—	—
c. Kala-azar	1	—	—	—	1	—	—	—
d. Others under this title	—	—	—	—	—	—	—	—
26.—Glanders	—	—	—	—	—	—	—	—
27.—Anthrax	1	—	—	1	—	—	—	—
28.—Rabies (Hydrophobia)	14	1	3	7	3	—	—	—
29.—Tetanus—								
(1) Under one year	9	—	—	2	4	3	—	—
(2) One year and over	47	—	2	29	5	8	1	2
30.—Mycoses—								
a. Thrush	—	—	—	—	—	—	—	—
b. Other Mycoses	2	—	—	1	—	1	—	—
31.—Tuberculosis of the Respiratory System—								
a. Laryngeal Tuberculosis	—	—	—	—	—	—	—	—
b. Pulmonary Tuberculosis	594	4	25	356	88	81	21	19
32.—Tuberculosis of the Meninges and Central Nervous System	3	—	—	2	—	—	—	1
33.—Tuberculosis of the Intestines and Peritoneum.	21	1	2	11	3	2	2	—
34.—Tuberculosis of the Vertebral Column	4	—	—	4	—	—	—	—
35.—Tuberculosis of the Joints	1	—	—	—	1	—	—	—
36.—Tuberculosis of other Organs—								
a. Tuberculosis of the Skin and Subcutaneous Cellular Tissue	—	—	—	—	—	—	—	—
b. Tuberculosis of the Bones (vertebral column excepted)	—	—	—	—	—	—	—	—
c. Tuberculosis of the Lymphatic System (mesenteric and retroperitoneal glands excepted)	6	—	—	4	1	—	—	1
d. Tuberculosis of the Genito-Urinary System	—	—	—	—	—	—	—	—
e. Tuberculosis of Organs other than the above	6	—	—	3	3	—	—	—
37.—Disseminated Tuberculosis—								
a. Acute	1	—	—	—	—	1	—	—
b. Chronic or unspecified	3	—	—	2	—	1	—	—
38.—Syphilis	36	—	—	28	3	3	1	1
38*a*.—Parangi (Framboesia Tropicum, Yaws)	—	—	—	—	—	—	—	—
39.—Soft Chancre	—	—	—	—	—	—	—	—
40.—Gonococcus Infection	1	—	—	1	—	—	—	—
41.—Purulent Infection, Septicæmia	60	1	4	26	17	4	3	5

*Primary vaccination was done during late incubation period.

(13) *Causes of Deaths, &c.*—contd.

Causes of Death.	All Races.	Nationality.					
		Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
42.—Other Infectious Diseases—								
a. Vaccinia	1	—	1	—	—	—	—	—
b. Other diseases under this title ...	2	—	—	1	—	1	—	—
II.—General Diseases not included in Class I.								
43.—Cancer and other Malignant Tumours of the Buccal Cavity	24	—	2	17	4	1	—	—
44.—Cancer and other Malignant Tumours of the Stomach, Liver	18	—	1	13	2	2	—	—
45.—Cancer and other Malignant Tumours of the Peritoneum, Intestines, Rectum ...	9	—	1	5	2	1	—	—
46.—Cancer and other Malignant Tumours of the Female Genital Organs ...	25	—	2	19	3	—	—	1
47.—Cancer and other Malignant Tumours of the Breast	10	—	1	4	4	1	—	—
48.—Cancer and other Malignant Tumours of the Skin	—	—	—	—	—	—	—	—
49.—Cancer and other Malignant Tumours of other or unspecified Organs ...	21	—	2	13	2	3	—	1
50.—Tumours not returned as Malignant (Brain and Female Genital Organs excepted) ...	12	—	3	7	2	—	—	—
51.—Acute Rheumatic Fever ...	4	—	—	2	1	1	—	—
52.—Chronic Rheumatism, Osteoarthritis, Gout ...	13	—	—	5	1	6	—	1
53.—Scurvy	1	—	—	1	—	—	—	—
54.—Pellagra	—	—	—	—	—	—	—	—
55.—Beri-Beri	—	—	—	—	—	—	—	—
56.—Rickets	45	—	2	26	3	10	4	—
57.—Diabetes Mellitus	59	—	3	36	9	9	1	1
58.—Anæmia, Chlorosis—								
a. Pernicious Anæmia ...	10	—	3	2	4	1	—	—
b. Other Anæmias and Chlorosis ...	27	1	1	16	4	1	2	2
59.—Diseases of the Pituitary Gland ...	—	—	—	—	—	—	—	—
60.—Diseases of the Thyroid Gland—								
a. Exopthalmic Goitre ...	1	—	1	—	—	—	—	—
b. Other diseases of the Thyroid Gland .	1	—	—	1	—	—	—	—
61.—Diseases of the Parathyroid Glands ...	1	—	—	1	—	—	—	—
62.—Diseases of the Thymus Gland ...	—	—	—	—	—	—	—	—
63.—Diseases of the Adrenale (Eddison's Disease) .	—	—	—	—	—	—	—	—
64.—Diseases of the Spleen	—	—	—	—	—	—	—	—
65.—Leukæmia and Hodgkin's Disease—								
a. Leukæmia	3	—	1	2	—	—	—	—
b. Hodgkin's Disease	1	—	1	—	—	—	—	—
66.—Alcoholism (acute or chronic) ...	2	1	—	—	1	—	—	—
67.—Chronic Poisoning by mineral substances—								
a. Chronic Lead Poisoning ...	—	—	—	—	—	—	—	—
b. Others under this title ...	1	—	—	1	—	—	—	—
68.—Chronic Poisoning by organic substances ...	—	—	—	—	—	—	—	—
69.—Other General Diseases	10	—	—	10	—	—	—	—
III.—Diseases of the Nervous System and of the Organs of Special Sense.								
70.—Encephalitis	4	—	—	2	2	—	—	—
71.—Meningitis—								
a. Simple Meningitis	26	1	—	15	4	3	2	1
b. Non-epidemic Cerebro Spinal Meningitis	2	—	—	—	—	1	1	—
72.—Tabes Dorsalis (Locomotor Ataxia) ...	—	—	—	—	—	—	—	—
73.—Other Diseases of the Spinal Cord ...	6	—	1	2	1	2	—	—
74.—Cerebral Hæmorrhage, Apoplexy—								
a. Cerebral Hæmorrhage ...	76	1	8	33	9	18	4	3
b. Cerebral Embolism and Thrombosis. .	17	—	4	7	2	1	1	2
75.—Paralysis without specified cause—								
a. Hemiphlegia	48	1	4	21	4	12	5	1
b. Other forms of Paralysis ...	57	—	4	42	3	7	—	1
76.—General Paralysis of the Insane ...	—	—	—	—	—	—	—	—
77.—Other forms of insanity	5	—	—	1	2	1	1	—
78.—Epilepsy	5	—	1	2	1	1	—	—
79.—Convulsions (non-puerperal; 5 years and over)	5	—	—	2	2	—	1	—
80.—Infantile Convulsions (under 5 years of age) .	318	—	11	171	64	52	13	7
81.—Chorea	—	—	—	—	—	—	—	—
82.—Neuralgia and Neuritis	1	—	—	1	—	—	—	—
83.—Softening of the Brain	—	—	—	—	—	—	—	—
84.—Other Diseases of the Nervous System ...	12	2	—	10	—	—	—	—
85.—Diseases of the Eye and Annexa ...	2	—	—	2	—	—	—	—
86.—Diseases of the Ear and of the Mastoid Process.	—	—	—	—	—	—	—	—
a. Diseases of the Ear ...	2	—	—	2	—	—	—	—
b. Diseases of the Mastoid Process ...	1	—	—	—	1	—	—	—
IV.—Diseases of the Circulatory System.								
87.—Pericarditis	5	—	—	2	1	—	—	2
88.—Acute Endocarditis and Myocarditis ...	33	2	8	16	2	4	—	1
89.—Angina Pectoris	11	—	1	6	1	2	—	1
90.—Other Diseases of the Heart—								
a. Valvular Disease	33	—	1	26	2	2	—	2
b. Fatty Degeneration of Heart ...	9	1	—	1	2	5	—	—
c. Others under this title ...	91	6	5	37	22	15	1	5

(13) *Causes of Deaths, &c.*—contd.

Causes of Death.	All Races.	Nationality.					
		Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
91.—Diseases of the Arteries	—	—	—	—	—	—	—	—
a. Aneurysm	3	—	1	1	1	—	—	—
b. Arteriosclerosis	2	—	1	1	—	—	—	—
c. Other Diseases of the Arteries	—	—	—	—	—	—	—	—
92.—Embolism and Thrombosis (not Cerebral)	27	—	1	21	5	—	—	—
93.—Diseases of the Veins (Varices, Hæmorrhoids, Phlebitis, &c.)	12	—	2	6	1	2	1	—
94.—Diseases of the Lymphatic System (Lymphangitis, &c.)	1	—	—	1	—	—	—	—
95.—Hæmorrhage without stated cause	5	—	—	2	2	1	—	—
96.—Other Diseases of the Circulatory System	1	—	—	1	—	—	—	—
V.—Diseases of the Respiratory System.								
97.—Diseases of the Nasal Fossae and their Annexa—								
a. Diseases of the Nose	—	—	—	—	—	—	—	—
b. Others under this title	—	—	—	—	—	—	—	—
98.—Diseases of the Larynx	6	—	1	4	—	—	—	1
99.—Bronchitis—								
a. Acute	21	—	—	9	2	6	4	—
b. Chronic	88	—	2	62	20	2	2	—
c. Unspecified (under 5 years of age)	44	—	2	25	3	13	1	—
d. Unspecified (5 years and over)	23	—	1	16	2	3	1	—
100.—Broncho-Pneumonia	504	—	20	307	74	73	15	15
101.—Pneumonia	—	—	—	—	—	—	—	—
a. Lobar	90	1	2	47	18	11	—	11
b. Unspecified	409	1	12	195	98	55	8	40
102.—Pleurisy—								
a. Empyema	8	—	—	5	2	—	—	1
b. Other forms of Pleurisy	15	1	1	7	4	—	1	1
103.—Congestion and Hemorrhagic Infarct of the Lung	11	—	—	4	5	2	—	—
104.—Gangrene of the Lung	6	—	1	4	—	—	—	1
105.—Asthma	29	—	1	15	4	5	3	1
106.—Pulmonary Emphysema	1	—	—	1	—	—	—	—
107.—Other Diseases of the Respiratory System—								
a. Chronic Interstitial Pneumonia, including Occupational Diseases of the Lungs	1	—	—	—	—	—	—	1
b. Diseases of the Mediastinum	—	—	—	—	—	—	—	—
c. Other under this title	2	—	—	2	—	—	—	—
VI.—Diseases of the Digestive System.								
108.—Diseases of the Buccal Cavity and Annexa	14	—	1	4	4	4	—	1
109.—Diseases of the Pharynx and Tonsils	—	—	—	—	—	—	—	—
a. Tonsilitis, Adenoid Vegetations	3	—	—	—	1	1	—	1
b. Other Diseases under this title	2	—	—	1	1	—	—	—
110.—Diseases of the Œsophagus	2	—	—	1	1	—	—	—
111.—Ulcer of the Stomach or Duodenum—								
a. Ulcer of the Stomach	6	1	—	3	—	2	—	—
b. Ulcer of the Duodenum	1	1	—	—	—	—	—	—
112.—Other Diseases of the Stomach	12	1	2	8	—	—	—	1
113.—Diarrhœa and Enteritis (under 2 years of age)	243	—	9	167	27	30	6	4
114.—Diarrhœa and Enteritis (2 years and over)	276	—	11	141	76	38	6	4
115.—Anchylostomiasis	127	—	2	84	28	11	—	2
116.—Diseases due to other Intestinal Parasites—								
a. Cestodes (Hydatids of the Liver excepted)	—	—	—	—	—	—	—	—
b. Trematodes	—	—	—	—	—	—	—	—
c. Nematodes (other than Anchylostoma)	3	—	—	2	1	—	—	—
d. Coccidia	—	—	—	—	—	—	—	—
e. Other parasites specified	—	—	—	—	—	—	—	—
f. Parasites not specified	178	1	6	111	18	32	8	2
117.—Appendicitis and Typhlitis	18	2	—	13	2	—	—	1
118.—Hernia, Intestinal Obstruction—								
a. Hernia	21	—	—	10	4	7	—	—
b. Intestinal obstruction	32	2	3	23	2	2	—	—
119.—Other Diseases of the Intestines—								
a. Psilosis (Sprue or Ceylon Sore-mouth)	7	—	2	2	3	—	—	—
b. Others under this title	9	—	—	5	1	3	—	—
120.—Acute Yellow Atrophy of the Liver	3	—	—	2	1	—	—	—
121.—Hydatid Tumour of the Liver	—	—	—	—	—	—	—	—
122.—Cirrhosis of the Liver—								
a. Specified as alcoholic	1	—	—	—	1	—	—	—
b. Not specified as alcoholic	56	—	7	41	7	1	—	—
123.—Biliary Calculi	—	—	—	—	—	—	—	—
124.—Other Diseases of the Liver	—	—	—	—	—	—	—	—
a. Abscess of Liver (Amœbiasis)	21	—	—	14	6	1	—	—
b. Others under this title	12	1	1	6	4	—	—	—
125.—Diseases of the Pancreas	—	—	—	—	—	—	—	—
126.—Peritonitis without specified cause	37	—	1	28	4	3	—	1
127.—Other Diseases of the Digestive System	—	—	—	—	—	—	—	—

(13) *Causes of Deaths, &c.*—contd.

Causes of Death.	All Races.	Nationality.					
		Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
VII.—Non-venereal Diseases of the Genito-Urinary System and Annexa.								
128.—Acute Nephritis (including unspecified under 10 years of age)	32	—	1	14	8	8	1	—
129.—Chronic Nerphritis (including unspecified 10 years and over)	171	3	8	86	32	32	3	7
130.—Chyluria	—	—	—	—	—	—	—	—
131.—Other Diseases of the Kidneys and Annexa .	12	—	—	9	1	1	—	1
132.—Calculi of the Urinary Passages ...	—	—	—	—	—	—	—	—
133.—Diseases of the Bladder	12	1	1	4	5	—	—	1
134.—Diseases of the Urethra, Urinary Abscess, &c.								
a. Stricture of the Urethra ...	3	—	—	3	—	—	—	—
b. Others under this title ...	4	—	1	3	—	—	—	—
135.—Diseases of the Prostate	3	—	1	2	—	—	—	—
136.—Non-venereal Diseases of the Male Genital Organs	—	—	—	—	—	—	—	—
137.—Cysts and other Tumours of the Ovary not returned as malignant	4	—	—	4	—	—	—	—
138.—Salpingitis and Pelvic Abscess (Female) ...	3	—	—	3	—	—	—	—
139.—Tumours of the Uterus not returned as malignant	3	—	—	3	—	—	—	—
140.—Non-puerperal Uterine Hæmorrhage ...	—	—	—	—	—	—	—	—
141.—Other Diseases of the Female Genital Organs.	4	—	—	3	1	—	—	—
142.—Non-puerperal Diseases of the Breast ...	—	—	—	—	—	—	—	—
VIII.—The Puerperal State.								
143.—Accidents of Pregnancy—								
a. Abortion	5	—	—	3	2	—	—	—
b. Ectopic Gestation	4	—	—	4	—	—	—	—
c. Other accidents of pregnancy ...	2	—	—	—	1	1	—	—
144.—Puerperal Hæmorrhage	16	—	2	11	—	2	1	—
145.—Other accidents of child-birth ...	13	—	1	9	1	1	1	—
146.—Puerperal Septicæmia	118	—	5	72	21	15	5	—
147.—Puerperal Phlegmasia, Alba Dolens, Embolism	—	—	—	—	—	—	—	—
148.—Puerperal Albuminuria and Convulsions—								
a. Puerperal Convulsions ...	11	—	—	6	2	3	—	—
b. Puerperal Albuminuria ...	4	—	1	—	1	1	—	1
149.—Child-birth not assignable to other headings (Puerperal Insanity)	21	—	—	11	8	—	—	2
150.—Puerperal Diseases of the Breast ...	—	—	—	—	—	—	—	—
IX.—Diseases of the Skin and of the Cellular Tissue.								
151.—Gangrene	32	—	3	17	6	5	—	1
152.—Carbuncle, Boil	1	—	—	—	1	—	—	—
153.—Acute Abscess—								
a. Cellulitis	9	—	—	5	1	2	1	—
b. Acute abscess	5	—	—	3	2	—	—	—
154.—Other Diseases of the Skin and Annexa—								
a. Ulcer, Bedsore	15	—	3	9	2	1	—	—
b. Elephantiasis arabum ...	1	—	—	—	—	1	—	—
c. Other Diseases under this title ...	3	—	1	2	—	—	—	—
X.—Diseases of the Bones and of the Organs of Locomotion.								
155.—Diseases of the Bones (Tuberculosis and Mastoid Diseases excepted) ...	3	—	—	2	—	—	—	1
156.—Diseases of the Joints (Tuberculosis and Rheumatism excepted)	1	—	—	1	—	—	—	—
157.—Amputations	—	—	—	—	—	—	—	—
158.—Other Diseases of the Organs of Locomotion	1	—	—	1	—	—	—	—
XI.—Malformations.								
159.—Congenital Malformations (stillbirths excluded)—								
a. Congenital Hydrocephalus ...	2	—	—	2	—	—	—	—
b. Congenital Malformations of the Heart	1	—	—	—	1	—	—	—
c. Others under this title ...	13	—	—	10	3	—	—	—
XII—Early Infancy.								
160.—Congenital Debility, Icterus and Sclerema .	523	—	17	225	131	108	24	18
161.—Premature Birth; Injury at Birth—								
a. Premature birth	130	—	3	101	15	7	2	2
b. Injury at birth	18	—	—	16	1	1	—	—
162.—Other Diseases peculiar to early Infancy ...	5	—	—	5	—	—	—	—
163.—Lack of care	—	—	—	—	—	—	—	—

(13) *Causes of Deaths, &c.*—contd.

Causes of Death.	All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
XIII.—Old Age.								
164.—Senility	495	1	28	144	76	108	21	17
XIV.—External Causes.								
165.—Suicide by Solid or Liquid Poisons (Corrosive substances excepted)	1	—	—	1	—	—	—	—
166.—Suicide by Corrosive substances	—	—	—	—	—	—	—	—
167.—Suicide by Poisonous Gas	—	—	—	—	—	—	—	—
168.—Suicide by Hanging or Strangulation	8	—	1	2	2	—	1	2
169.—Suicide by Drowning	1	—	—	1	—	—	—	—
170.—Suicide by Firearms	1	1	—	—	—	—	—	—
171.—Suicide by Cutting or Piercing Instrument	1	—	—	—	1	—	—	—
172.—Suicide by Jumping from high places	—	—	—	—	—	—	—	—
173.—Suicide by Crushing	—	—	—	—	—	—	—	—
174.—Suicide by other means	2	—	—	—	1	—	—	1
175.—Poisoning by Food	—	—	—	—	—	—	—	—
176.—Poisoning by Venomous Bites and Stings—								
a. Snake-bite	—	—	—	—	—	—	—	—
b. Insect Stings	—	—	—	—	—	—	—	—
c. Other Venomous Poisonings	—	—	—	—	—	—	—	—
177.—Other Acute Accidental Poisonings	6	—	1	4	1	—	—	—
178.—Conflagration	1	—	—	1	—	—	—	—
179.—Accidental Burns (Conflagration excepted)	18	—	1	13	2	—	1	1
180.—Accidental Mechanical Suffocation	—	—	—	—	—	—	—	—
181.—Accidental Absorpton of Irrespirable, Irritating, or Poisonous Gas	—	—	—	—	—	—	—	—
182.—Accidental Drowning	21	1	1	5	9	2	—	3
183—Accidental Traumatism by Firearms (wounds of war excepted)	1	—	—	1	—	—	—	—
184.—Accidental Traumatism by Cutting or Piercing Instruments	—	—	—	—	—	—	—	—
185.—Accidental Traumatism by Falls—								
a. From trees	15	—	—	7	5	—	—	3
b. From heights other than trees	1	—	—	1	—	—	—	—
c. Traumatism by other Accidental Fall	16	—	1	9	4	1	—	1
186.—Accidental Traumatism in Mines and Quarries	1	—	—	—	1	—	—	—
187.—Accidental Tranmatism by Machines	2	—	—	1	—	1	—	—
188.—Accidental Traumatism by other crushing—								
a. Cart or Carriage	10	—	—	7	3	—	—	—
b. Landslides	—	—	—	—	—	—	—	—
c. Motor Vehicles	23	—	—	13	8	—	—	2
d. Railways	13	—	1	9	1	1	—	1
e. Others under this title	5	—	—	3	1	—	—	1
189.—Injuries by Animals (poisoning by venomous bites and stings excepted)	1	—	—	1	—	—	—	—
190.—Wounds of War	—	—	—	—	—	—	—	—
191.—Execution of Civilians by Belligerent Armies.	—	—	—	—	—	—	—	—
192.—Starvation (Hunger or Thirst)	2	—	—	1	—	1	—	—
193.—Excessive Cold	—	—	—	—	—	—	—	—
194.—Excessive Heat	—	—	—	—	—	—	—	—
195.—Lightning	—	—	—	—	—	—	—	—
196.—Electricity (Lightning excepted)	1	—	—	—	1	—	—	—
197.—Homicide by Firearms	2	—	—	2	—	—	—	—
198.—Homicide by Cutting or Piercing Instruments	15	—	—	8	1	1	—	5
199.—Homicide by other means	12	—	—	8	1	3	—	—
200.—Infanticide (murder of infant less than 1 year of age)	—	—	—	—	—	—	—	—
201.—Fractures (cause not specified)	3	—	—	2	1	—	—	—
202.—Other External Violence—								
a. Judicial Execution	21	—	—	16	2	1	—	2
b. Others under this title	15	—	—	9	3	1	1	1
203.—Violent deaths of unknown causation	—	—	—	—	—	—	—	—
XV.—Ill-defined Diseases.								
204.—Sudden death	—	—	—	—	—	—	—	—
205.—Cause of death not specified or ill-defined—								
a. Dropsy	1	—	—	1	—	—	—	—
b. Heart Failure	19	1	1	13	1	2	—	1
c. Pyrexia	61	—	1	29	16	11	3	1
d. Other Ill-defined diseases	211	—	7	115	48	34	5	2
e. Not specified unknown	—	—	—	—	—	—	—	—

VI.—Infant Mortality.

The year under review showed a further improvement in the infant mortality figures, there being 1,584 deaths, as against 1,658 in the previous year, representing a death-rate of 187 per 1,000 births, as against 204 in the previous year. This is the lowest infant death-rate so far recorded in Colombo, *vide* Diagram II., Chart D, and Statement 14.

The principal causes of infant deaths are shown in Statement 15. Atrophy and debility claimed 523 deaths or 33·0 per cent. and convulsions 256 or 16·2 per cent. of the total infant deaths. Atrophy and debility showed during 1927 a higher figure and convulsions a lower figure than 1926. This is due to the inclusion this year under debility deaths which were in previous years classified under marasmus and asthenia (a heading which has now been abolished) and also to the inclusion, under debility, those deaths which were certified to be due to "convulsions due to debility." The primary cause being debility, such deaths were assigned to debility and not to convulsions in accordance with the recommendation made in the Manual of the International Causes of Deaths.

The mortality from diarrhœal diseases showed an improvement, there being 170 deaths, as against 192 in the previous year. This may possibly have been due, in some measure, to the issue of free milk in deserving cases which would otherwise have been fed on wholly unsuitable and infected foods. It is, however, too soon to begin to draw deductions as free milk distribution began only about the middle of 1925 with 70 babies, which was increased to 126 babies in 1926 and 190 in 1927.

The reduction in the infant mortality is very gratifying, and with a whole-time Assistant Medical Officer of Health in charge of this work it is hoped that there will be a progressive diminution in the infant mortality rate.

(14) *Births and Infantile Deaths with their Rates for Colombo Town, 1903 to 1927.*

Year.	No. of Births.	Birth-rate.	No. of Infant Deaths.	Infant Mortality.
1903	3,552	21·5	1,457	410
1904	3,670	21·6	1,296	353
1905	3,916	22·5	1,414	361
1906	4,726	26·5	1,428	300
1907	4,280	23·4	1,300	304
1908	4,602	24·5	1,635	355
1909	4,589	23·8	1,423	310
1910	4,819	23·1	1,420	295
1911	5,280	24·8	1,669	316
1912	5,193	23·3	1,554	299
1913	5,693	25·3	1,627	286
1914	5,359	23·6	1,392	260
1915	5,641	24·5	1,525	270
1916	5,552	23·9	1,297	234
1917	5,860	25·0	1,470	251
1918	5,920	24·9	1,572	266
1919	5,907	24·6	1,603	271
1920	7,197	29·7	1,679	233
1921	8,724	35·7	2,098	240
1922	6,881	27·8	1,702	247
1923	7,107	28·4	1,929	271
1924	6,887	27·2	1,643	239
1925	7,663	29·9	1,689	220
1926	8,114	31·3	1,658	204
1927	8,491	32·4	1,584	187

(15) *Principal Causes of Infant Mortality in 1927.*

Expressed as a Percentage of Total Infant Deaths.

Cause of Death.	No. of Deaths.	Percentage of Total Infant Deaths.
Convulsions	256	16·2
Atrophy and Debility	523	33·0
Diarrhœal Diseases	170	10·7
Pneumonia	211	13·3
Premature Birth	127	8·0

(16) *Infant Deaths during each Quarter, 1927.*

	Cause of Death.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Developmental	Atrophy and Debility	119	130	123	151
	Premature Birth	42	14	23	51
Respiratory	Bronchitis	17	11	8	7
	Pneumonia	34	70	65	42
	Diarrhœal	42	33	60	35
	Convulsions	93	58	49	56
	Total	347	316	328	342

(17) *Infant Mortality by Race, 1927—Number of Infant Deaths and Rate per 1,000 Births.*

Race.	No. of Infant Deaths, 1927.	Rate per 1,000 Births, 1927.	Rate per 1,000 Births previous Year.	Increase or Decrease of 1927 Rate when compared with Previous Year.
All Races	1,584	187	204	−17
Europeans	1	11	46	−35
Burghers	46	77	124	−47
Sinhalese	886	180	189	− 9
Tamils	289	245	266	−21
Moors	268	224	251	−27
Malays	53	174	239	−65
Others	41	203	252	−49

(18) *Infant Mortality, 1927, by Wards—Rate per 1,000 Births.*

Ward.	Average, 1917 to 1926.	1926.	1927.	Increase or Decrease of 1927 Rate when compared with 1926.
Colombo Town	242	204	187	− 17
Fort	259	—	—	—
Pettah	325	167	259	+ 92
San Sebastian	328	259	279	+ 20
St. Paul's	400	267	285	+ 18
Kotahena	263	224	215	− 9
Mutwal		257	209	− 48
New Bazaar	349	245	260	+ 15
Maradana North	279	250	213	− 37
Maradana South		247	243	− 4
Dematagoda		254	202	− 52
Slave Island	277	262	157	−105
Kollupitiya	205	198	160	− 38
Cinnamon Gardens		229	156	− 73
Bambalapitiya	185	122	105	− 17
Timbirigasyaya		154	224	+ 70
Wellawatta		141	163	+ 22
Hospitals	145	141	131	− 10

(19) *Infant Mortality, by Race, during the Year 1927—Rate per 1,000 Births.*

Cause.	All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
All Causes	187	11	77	180	245	224	174	203
Premature Birth	15	—	5	20·5	13	6	7	10
Atrophy and Debility	62	—	29	46	111	90	79	89
Bronchitis	5	—	3	6	3	8	3	—
Pneumonia	25	—	7	28	23	23	33	20
Diarrhœal Diseases	20	—	8	22	18	22	13	20
Convulsions	30	—	13	29	46	33	20	30
Tetanus	1·1	—	—	0·4	3	3	—	—
All Other causes	28·5	11	12	28	29	40	20	35

(20) (*a*) *Causes of Infant Mortality, 1908 to 1927—Number of Deaths.*

Causes of Infant Deaths.	1908	1909	1910	1911	1912	Average, 1908-1912	1913	1914	1915	1916	1917	Average, 1913-1917	1918	1919	1920	1921	1922	Average, 1918-1922	1923	1924	1925	1926	1927
Developmental Diseases	410	320	324	379	378	362	402	361	434	446	573	443	570	598	498	706	603	595	685	617	602	609	676
Pneumonia and Bronchitis	247	250	221	267	269	251	302	198	189	157	180	205	301	220	228	311	251	262	263	213	241	228	254
Digestive Diseases	254	148	230	231	196	222	264	207	227	169	215	216	190	201	220	279	225	223	262	235	220	226	202
Convulsions	502	382	396	483	472	447	472	451	482	388	404	439	365	418	590	602	411	477	480	409	426	420	256
Tetanus Neonatorum	133	173	150	141	77	135	51	27	29	16	25	30	29	17	17	16	17	19	7	22	13	18	9
Tuberculosis	18	18	20	3	3	12	—	1	2	3	3	2	5	5	6	19	9	9	10	4	2	—	1
Infectious Diseases	8	4	1	4	5	4	—	7	12	3	4	5	2	3	6	7	2	4	6	1	3	3	2
Syphilis	7	14	13	22	20	15	23	28	17	19	16	21	28	37	33	33	44	35	59	36	37	34	27

(b) Causes of Infant Mortality, 1908 to 1927—Rate per 1,000 Births.

Causes of Infant Deaths.	1908	1909	1910	1911	1912	Average, 1908-1912	1913	1914	1915	1916	1917	Average, 1913-1917	1918	1919	1920	1921	1922	Average, 1918-1922	1923	1924	1925	1926	1927
Developmental Diseases ...	89	70	67	72	73	74	71	67	77	80	98	78	96	100	69	81	88	86	96	90	78	75	80
Pneumonia and Bronchitis	54	55	46	51	52	51	53	37	33	28	31	36	51	37	32	36	36	38	37	31	31	28	30
Digestive Diseases ...	55	43	48	44	38	45	46	39	40	30	37	38	32	34	31	32	33	32	37	34	29	28	24
Convulsions ...	109	83	82	91	91	91	83	84	85	70	69	78	62	71	82	69	60	69	68	59	56	52	30
Tetanus Neonatorum ...	29	38	31	27	18	28	9	5	5	3	4	5	5	3	2	2	2	3	1	3	2	2	1·1
Tuberculosis ...	4	4	4	1	1	3	—	0·2	0·4	0·5	0·5	0·3	1	1	1	2	1	1	1	0·6	0·3	—	0·1
Infectious Diseases ...	2	1	0·2	1	1	1	—	1	2	0·5	0·7	1	0·3	0·5	1	1	0·6	0·6	1	0·1	0·4	0·4	0·2
Syphilis ...	2	3	3	4	4	3	4	5	3	3	3	4	5	6	5	4	6	5	8	5	5	4	3·2

(22) *Infant Mortality—Deaths at different Age Periods and from Several Causes.*

Causes of Death.	Age.													Race.							
	Age in Weeks.					Age in Months.								Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	All Races
	1	2	3	4	Total.	2	3	4	5	6	7-9	10-12	Total.								
I.—Developmental Diseases:—																					
1. Premature birth ...	111	13	2	1	127	2	1	—	—	—	—	—	3	—	3	101	15	7	2	2	130
2. Atlectasis ...	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
3. Atrophy and Debility	195	52	39	27	313	46	40	32	23	15	30	24	210	—	17	225	131	108	24	18	523
4. Others ...	6	2	1	—	9	2	1	2	2	—	5	1	13	—	—	16	2	3	1	—	22
II.—Diseases of Respiratory System:—																					
1. Laryngitis ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Croup ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Bronchitis ...	—	3	—	1	4	4	8	5	3	5	6	8	39	—	2	28	3	9	1	—	43
4. Pneumonia ...	2	2	—	—	4	10	15	21	17	19	64	61	207	—	4	139	27	27	10	4	211
5. Others ...	1	1	2	2	6	5	7	10	10	10	14	21	77	—	4	23	18	32	—	6	83
III.—Diseases of Digestive System:—																					
1. Diarrhœal ...	1	4	3	5	13	14	16	19	17	20	42	24	152	—	5	108	19	26	3	4	165
2. Dentition ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Others ...	4	2	3	2	11	5	1	—	2	1	3	9	21	—	—	21	4	5	2	—	32
IV.—Diseases of Nervous System:—																					
1. Convulsions ...	49	24	12	12	97	24	19	28	20	15	32	21	159	—	8	142	54	40	6	6	256
2. Laryngismus stridulus.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Tetanus ...	1	6	—	—	7	2	—	—	—	—	—	—	2	—	—	2	4	3	—	—	9
4. Others ...	2	1	—	—	3	—	2	1	1	—	2	1	7	1	—	8	—	—	1	—	10
V.—Tuberculous Diseases:—																					
1. Tabes messenterica ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Tubercular meningitis.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Others ...	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	1
VI.—Accidents:—																					
1. Injury ...	18	—	—	—	18	—	—	—	—	—	—	—	—	—	—	16	1	1	—	—	18
2. Umbilical hæmorrhage	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Suffocation ...	1	—	—	—	1	—	—	—	—	—	1	—	1	—	—	2	—	—	—	—	2
4 Other violence ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
VII.—Epidemic, Endemic, and Infectious Diseases:—																					
1. Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Chickenpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. Measles ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. Whooping cough ...	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	2	—	—	—	—	2
5. Mumps ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. Dysentery ...	—	—	—	—	—	1	—	—	—	—	1	3	5	—	—	2	2	—	1	—	5
8. Cerebro-spinal fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Scarlet fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
VIII.—Syphilis ...	1	2	3	1	7	1	1	3	5	2	6	2	20	—	—	23	—	3	1	—	27
IX.—All Other causes ...	8	1	1	—	10	6	4	3	1	3	10	7	34	—	2	27	9	4	1	1	44
Total ...	401	113	66	51	631	122	115	124	101	91	218	182	953	1	46	886	289	268	53	41	1584
Percentage on Total Infant Deaths ..	25·3	7·1	4·2	3·2	39·8	7·7	7·3	7·8	6·4	5·7	13·8	11·5	60·2	0·06	2·9	55·9	18·2	16·9	3·3	2·6	—

VII.—Infectious Diseases. (General.)

Statements 23 and 24 show the incidence of the principal infectious diseases in the town yearly from 1903 to 1927 and monthly during the year under review. Except plague and diphtheria, which showed respectively an increase of 70 cases and one case over 1926, all the other diseases and particularly measles and chickenpox showed a decrease in numbers over the previous year.

(23) *Infectious Diseases Recorded (Town Cases), 1903—1927.*

Diseases.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Plague ...	—	—	—	—	—	—	—	—	—	—	—	413	138	291	207	70	87	235	184	136	230	148	64	13	83
Cholera ...	1	1	—	1	29	30	—	1	19	—	80	3	1	2	—	4	—	—	—	—	—	1	3	—	—
Smallpox ...	7	1	45	40	49	438	78	69	36	—	—	240	287	1	1	36	3	75	12	34	3	4	1	10	2
Chickenpox ...	230	274	398	231	259	543	828	901	934	427	491	560	627	3,204	1,295	788	495	639	711	699	1,235	790	1,703	1,045	887
Measles ...	119	278	397	354	74	666	436	149	330	643	524	52	20	1,353	1,127	88	399	1,062	190	226	761	650	627	518	102
Diphtheria ...	—	6	2	10	13	7	8	18	12	10	10	8	9	7	14	7	13	7	20	16	19	11	14	17	18
Enteric fever * ...	262	303	451	709	741	1,131	683	786	1,063	566	415	229	393	437	393	357	512	677	398	341	535	415	473	249	206
Continued fever * and "suspected enteric" ...	—	—	28	87	177	275	147	122	71	111	92	81	75	67	66	132	141	162	187	115	105	231	243	168	136
Phthisis * ...	Not Notifiable †								585	755	759	771	892	806	713	1,071	1,285	1,361	1,367	1,181	1,343	1,204	1,146	977	810

* Continued fever was made notifiable, and the notification of enteric fever began to be enforced late in 1903; but comparatively little progress was made until 1906, hence the apparent sudden increase of these diseases. Phthisis was made notifiable in 1910, but this did not take effect until 1911. The Lunatic Asylum was removed from Town in 1926.

† Includes Port and outside cases. Thereafter these are excluded.

(24) *Notifiable Infectious Diseases, 1927.*

Diseases.	(a) January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	(b) Total Town Cases.	(c) Port Cases.	(d) Outside Cases.	(e) Grand Total, 1927.	(f) Total Town Cases, 1926.
Plague ...	13	12	19	12	8	9	—	2	4	1	1	2	83	—	—	83	13
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox ...	—	—	—	—	—	—	—	1	—	—	1	—	2	7	—	9	10
Chickenpox ...	145	132	163	110	70	34	27	30	35	39	49	53	887	18	32	937	1,045
Measles ...	8	6	9	6	1	1	3	15	25	14	3	11	102	2	15	119	518
Diphtheria ...	—	2	—	2	—	2	2	1	—	3	2	4	18	1	10	29	17
Acute diarrhœa ...	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	1	2
Enteric fever ...	16	18	18	13	22	16	18	24	18	17	15	11	206	4	217	427	249
Continued fever ...	19	10	13	13	7	11	10	14	10	12	10	7	136	—	40	176	168
Phthisis ...	76	68	72	73	54	65	60	77	61	65	80	59	810	18	393	1,221	977
Scarlet fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	—
Typhus fever ...	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	6	—
Total ...	277	248	294	229	162	139	120	164	153	151	161	147	2,245	59	707	3,011	2,999

VIII.—PLAGUE.

Human Plague.—There were 83 cases of human plague during the year with 76 deaths, representing a case mortality of 91·6, as against 13 cases with 12 deaths in 1926. The larger number of cases during the year under review is believed to be due to the re-importation of fresh infection from abroad in September, 1926.

Of the 83 cases, 32 were septicæmic in type with 32 deaths, representing a case mortality of 100 per cent., and 51 were bubonic in type with 44 deaths, representing a case mortality of 86·3 per cent. Seven of the bubonic cases recovered.

Fifty-six out of the 83 cases occurred during the first four months of the year, namely, 13 in January, 12 in February, 19 in March, and 12 in April; then there was a gradual decline in the number of cases each month.

Racially the Tamils were affected most, there being 34 cases amongst them, with the Coast Moors next with 21 cases, and the Sinhalese third with 17 cases. The high incidence among these races is due to the fact that cooly labour is principally drawn from the above three races in the order given.

As usual more males than females were attacked, there being 72 cases among males and 11 among females.

The largest number of cases occurred in the Pettah, St. Paul's, and Maradana South Wards, *vide* Statement 27, in all of which there is a very large amount of grain stored.

Rat Plague.—25,329 rats from all parts of the town were examined at the Municipal Laboratory and 39 or 0·15 per cent. of them were found infected, the largest number of infected rats being found in the month of February.

Out of the 39 cases of rat plague no less than 21 were from the Pettah Ward, and of these seven came from the Chalmers Granaries. Five cases were from the Customs premises and the rest were from San Sebastian, St. Paul's, New Bazaar, and Maradana Wards.

Species of Rats.—Of the 25,329 rats examined at the Laboratory, 17,824 belonged to the species *R. rattus* with a percentage infection of 0·11; 6,244 belonged to the species *R. norvegicus* with a percentage infection of 0·27; 1,259 to the species *M. musculus* with a percentage infection of 0·16; and two were *bandicoots* with a percentage infection of nil.

Rat Destruction.—During the year altogether 148,280 rats were accounted for as follows:—

Number of rats trapped	145,732
Number of rats killed by fumigation	2,293
Number of rats found dead	255
Total ...	148,280

Preventive Measures.—The usual preventive measures were carried out with unabated vigour, special attention being paid during the off season to the *cheopis* infected areas mapped out by the City Microbiologist. The work done by the special plague staff is shown in Statement 34.

The question of the disinfestation of imported grain and of the rendering of the Chalmers Granaries more effectually ratproof is receiving the attention of Government.

For further details see the following statements:—

(25) *Annual Incidence of Human Plague Cases, 1914 to 1927.*

	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	Average, 1917–1926.	1927.
Total cases ...	413	139	291	207	70	87	235	184	136	230	148	64	13	137	83
Total deaths ...	381	128	273	196	69	82	223	170	131	209	140	58	12	129	76
Septicæmic cases ...	247*	81*	159	124	41	50	93	70	57	66	47	18	2	57	32
Septicæmic deaths ..	246	80	159	124	41	50	93	70	57	66	47	18	2	57	32
Bubonic cases ...	166	58	132	83	29	37	142	114	79	164	94	45	11	80	51
Bubonic deaths ...	135	48	114	72	28	32	130	100	74	143	86	40	10	72	44
Pneumonic cases ...	—	—	—	—	—	—	—	—	—	—	7	—	—	?	—
Pneumonic deaths ..	—	—	—	—	—	—	—	—	—	—	7	—	—	?	—
Cutaneous cases ...	—	—	—	—	—	—	—	—	—	—	—	1	—	?	—
Cutaneous deaths ...	—	—	—	—	—	—	—	—	—	—	—	—	—	?	—
Total case mortality per cent. ...	92·2	92·8	93·8	94·7	98·6	94·3	94·9	92·4	96·3	90·9	94·5	90·6	92·3	93·9	91·6
Septicæmic case mortality per cent. ...	99·6	98·7	100	100	100	100	100	100	100	100	100	100	100	100	100
Bubonic case mortality per cent. ...	81·3	82·7	86·4	86·7	96·6	86·5	91·5	87·7	93·8	87·2	91·5	88·9	90·9	89·6	86·3
Pneumonic case mortality per cent.	—	—	—	—	—	—	—	—	—	—	100	—	—	—	—

* The cases for 1914 and 1915 include a septicæmic recovery each, but the diagnosis in either case was not confirmed bacteriologically and may have been erroneous.

SPOT MAP №1


PLAGUE
IN
CITY
OF
COLOMBO
— Scale 30 Chains to an Inch —
1927
Human Cases
Rat Cases
HENDALA
WATTALA
CROW ISLAND
WANAWAHALA
MATTAKKULIYA
MODARA
MADAMPITIYA
WEDAMULLA
PELIYAGODA
KEMBULA WALA CEMETERY
GRANDPASS
PETTAGODA
KOTAHENA
KELANI GANGA
SEDAWATTA
WERAGODA
KOTUWILA
HARBOUR
KOTAHENA
URUGODAWATTA
KITAMPAHUWA
St. PAULS
NEW BAZAAR
WENNAWATTA
MITOTAMULLA
PETTAH
FORT
MALIGAWATTA
WELLAMPITIYA
St. SEBASTIAN
MARADANA
MEGODA KOLONNAWA
EGODA KOLONNAWA
BASE LINE ROAD
SLAVE ISLAND
LAKE
YAKKEDDA
BORELLA
KOLLUPITIYA
WELIKADA
CINNAMON GARDENS
KANATTA
RIDGEWAY
GOLF LINKS
BAMBALAPITIYA
TIMBIRIGASYAYA
NAWALA
LAKE
WELLAWATTA
KOTTE
HAVELOCK TOWN
KIRILLAPONE
PAGODA
NUGEGODA
MIRIHANA
EDIRIGODA
WELLAWATTA
GANGODAWILA
KALUBOWILA

SPOT MAP №1

PLAGUE
IN
CITY
OF
COLOMBO
1927
KOTAHENA
HARBOUR
MARADANA
SLAVE ISLAND
KOLLUPITIYA
WELLAWATTA

(26) *Monthly Incidence of Human Plague Cases, 1914—1927.*

Month.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925	1926.	Average, 1917-1926.	1927.
January ...	4	19	17	25	13	—	25	65	13	28	46	5	1	22	13
February ...	67	6	18	40	18	1	20	53	10	32	22	6	4	21	12
March ...	58	3	18	61	10	3	3	27	6	11	7	8	2	14	19
April	28	3	14	34	11	—	3	7	2	17	24	6	1	10	12
May	29	3	11	11	2	—	4	2	7	9	9	1	—	4	8
June	49	1	36	3	9	—	3	1	8	10	6	10	1	5	9
July	47	5	43	6	2	—	12	3	10	21	11	8	—	7	—
August ...	40	20	35	1	1	2	7	2	7	23	5	8	—	6	2
September ...	18	21	25	3	—	5	18	2	7	26	3	5	—	7	4
October ...	23	24	24	7	—	18	28	9	14	12	3	1	—	9	1
November ...	24	10	25	10	2	34	34	4	19	13	8	5	2	13	1
December ...	26	24	25	6	2	24	78	9	33	28	4	1	2	19	2
Total for the year	413	139	291	207	70	87	235	184	136	230	148	64	13	137	83
Monthly mean ...	34·4	11·6	24·3	17·3	5·8	7·3	19·6	15·3	11·3	19·2	12·3	5·3	1·1	11·4	6·9

(27) *Human Plague, 1927—Distribution by Wards.*

Ward.	No. of Cases.	No of Deaths.
Fort	—	—
Pettah	18	14
San Sebastian ...	7	6
St. Paul's ...	13	12
Kotahena ...	1	1
Mutwal	9	9
New Bazaar ...	5	5
Maradana North ...	1	1
Maradana South ...	11	10
Dematagoda ..	2	2
Slave Island ...	2	2

Ward.	No. of Cases.	No. of Deaths.
Kollupitiya ...	—	—
Cinnamon Gardens ...	—	—
Bambalapitiya ...	—	—
Timbirigasyaya ...	—	—
Wellawatta ...	—	—
No fixed residence ...	8	8
Untraced... ...	6	6
Total ...	83	76

(28) *Human Plague in Colombo during the Year 1927—Distribution by Race, Sex, and Age.*

Race.	Sex.	0 to 5 Years.	5 to 10 Years.	10 to 15 Years.	15 to 20 Years.	20 to 25 Years.	25 to 30 Years.	30 to 35 Years.	35 to 40 Years.	40 to 50 Years.	50 to 60 Years.	60 Years and Over.	Total.	Total of each Race.	Case-rate per 1,000 Population.	No. of deaths (inclusive of deaths of Colombo cases at I. D. H.)	Case Mortality per Cent.	Death-rate per 1,000 Population.
All Races ...	Males	—	—	7	18	16	8	7	4	7	3	2	72	83	0·32	76	91·6	0·29
	Females	—	1	2	1	1	1	1	1	1	2	—	11					
Europeans ...	Males	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Females	—	—	—	—	—	—	—	—	—	—	—	—					
Burghers ...	Males	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Females	—	—	—	—	—	—	—	—	—	—	—	—					
Sinhalese ...	Males	—	—	4	3	2	—	1	—	2	—	—	12	17	0·14	17	100	0·14
	Females	—	—	1	1	1	1	—	—	1	—	—	5					
Tamils ...	Males	—	—	—	7	9	3	2	4	1	2	1	29	34	0·59	32	94·1	0·55
	Females	—	—	1	—	—	—	1	1	—	2	—	5					
Moors ...	Males	—	—	3	6	2	1	3	—	4	1	—	20	21	0·49	18	85·7	0·42
	Females	—	1	—	—	—	—	—	—	—	—	—	1					
Malays ...	Males	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Females	—	—	—	—	—	—	—	—	—	—	—	—					
Others ...	Males	—	—	—	2	3	4	1	—	—	—	1	11	11	0·84	9	81·8	0·69
	Females	—	—	—	—	—	—	—	—	—	—	—	—					

(29) *Human Plague, 1927—Occupational Incidence.*

Engaged in the grain trade ...	17
Coolies	18
Servants in shops and boutiques	12
Cooks	3
Hawkers	3
Tailors	2
Dhobies	1
Papadum makers ...	1
Students	1
Bicycle repairers ...	1
Bar keepers	1
Car cleaners	1
Masons	1
Salvation Army officers ...	1
Occupation not stated ...	5
No occupation	15
Total ...	83

(30) *Statement showing Rats examined at the Laboratory, Number found infected, and Percentage Infection.*

Month.	No. of Rats examined.	Number infected	Percentage Infection.	Month.	No. of Rats examined.	Number infected.	Percentage Infection.
January	2,939	9	0·3	September	1,550	—	—
February	2,463	10	0·4	October	2,327	1	0·04
March	2,317	5	0·22	November	2,290	3	0·13
April	1,652	1	0·06	December	1,754	—	—
May	1,992	7	0·35				
June	2,022	3	0·15	Total	25,329	39	0·15
July	1,939	—	—				
August	2,084	—	—				

(31) *Distribution of Rodents examined for Plague in 1927.*

	Species.	Number examined.	Number infected.	Percentage infection.
Trapped rats	R. Rattus	17,020	8	0·05
	R. Norvegicus	4,548	5	0·1
	M. Musculus	683	—	—
	Bandicoots	—	—	—
Rats found dead	R. Rattus	74	9	12·2
	R. Norvegicus	120	8	6·67
	M. Musculus	10	2	20·0
	Bandicoots	—	—	—
Rats killed by Claytons	R. Rattus	730	3	0·41
	R. Norvegicus	1,576	4	0·25
	M. Musculus	566	—	—
	Bandicoots	2	—	—
	Total	25,329	39	0·15

(32) *Rat Plague, 1927—Distribution by Ward.*

Fort	Nil	New Bazaar	2
Customs	5	Maradana North	5
Pettah	14	Maradana South	3
Chalmers Granaries	7		
San Sebastian	1	Total	39
St. Paul's	2		

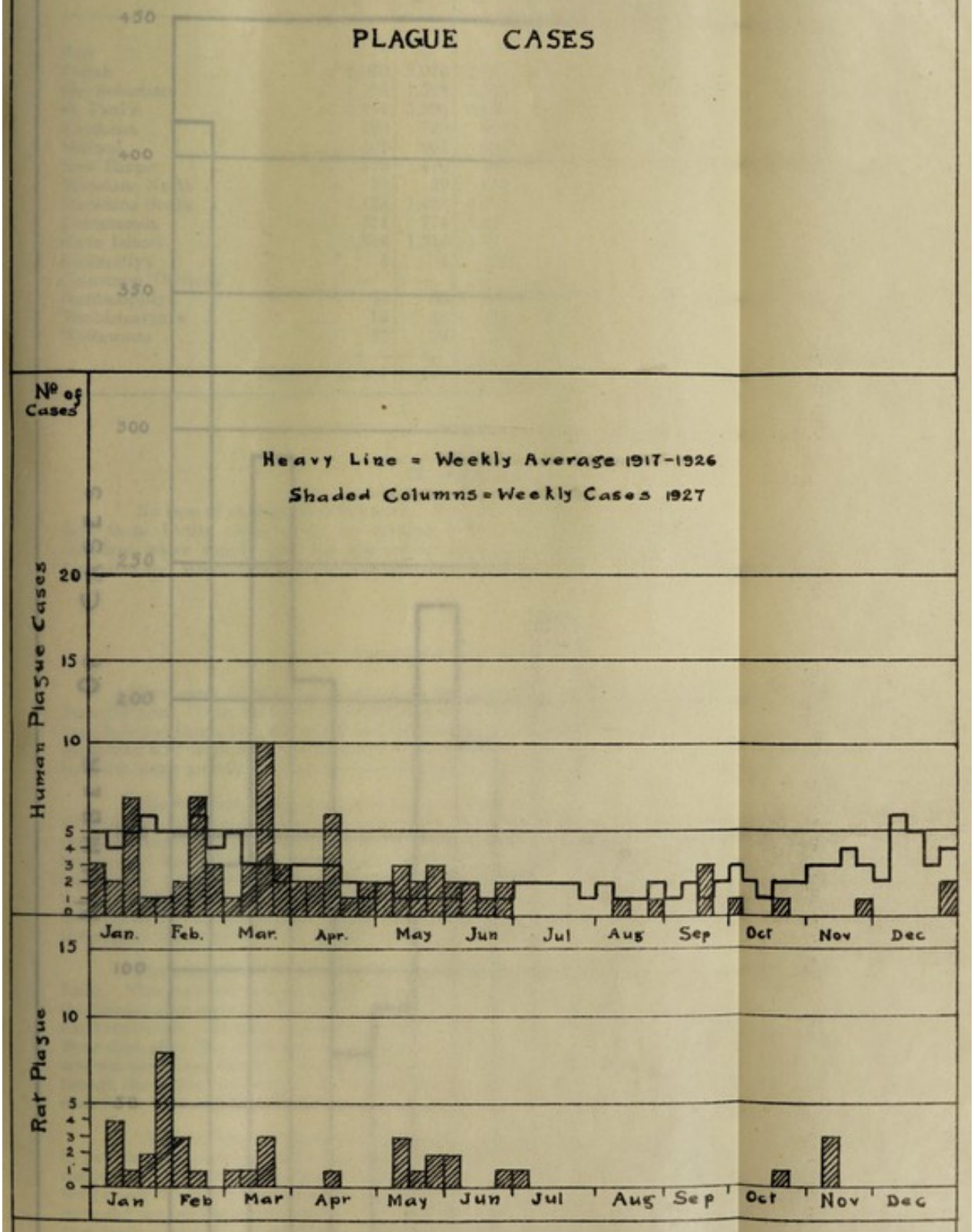
(33) *Rats trapped, killed by Claytons, and found Dead during the Year 1927.*

Month.	Number of Rats trapped.			Number of Rats killed by Claytons.	Number of Rats found Dead.					Total.
	Veterinary Surgeon.	Chalmers* Granaries.	Manning* Market.		Mummified Rats.	Veterinary Surgeon.	Plague Inspector.	Chalmers* Granaries.	Manning* Market.	
January	10,289	345	86	513	25	1	43	—	1	11,303
February	8,258	284	74	472	16	—	37	8	—	9,149
March	10,039	197	83	222	6	—	30	4	—	10,581
April	9,286	167	57	161	3	—	2	1	—	9,677
May	11,401	151	55	106	—	—	8	—	—	11,721
June	12,232	149	64	133	1	—	7	3	—	12,589
July	11,624	190	46	66	—	—	3	6	—	11,935
August	12,196	191	60	160	1	—	7	—	—	12,615
September	13,637	163	45	64	—	—	1	1	—	13,911
October	15,000	310	52	167	1	—	5	2	—	15,537
November	14,227	229	59	90	2	13	9	—	—	14,629
December	14,221	226	39	139	—	1	7	—	—	14,633
Total	142,410	2,602	720	2,293	55	15	159	25	1	148,280

* Figures supplied by the Chairman, Board of Immigration and Quarantine, Colombo.

DIAGRAM Nº III

PLAGUE CASES



Survey Dept. Ceylon

(30) *St[illegible]ment showing Rats examined at the Laboratory, Number found infected, and Percentage Infection.*

Month.	No. of Rats examined.	Number infected.	Percentage Infection.	Month.	No. of Rats examined.	Number infected.	Percentage Infection.
January	2,939	[illegible]	[illegible]	September	1,550	—	—
February	2,463	10	[illegible]	October	2,327	1	0·04
March	2,317	5	[illegible]	November	2,290	3	0·13
April	1,652	[illegible]	[illegible]	December	1,754	—	—
May	1,992	[illegible]	[illegible]				
June	2,022	3	[illegible]	Total	25,329	39	0·15
July	1,939	—	—				
August	2,084	—	—				

(31) *Distribution of [illegible] examined for Plague in 1927.*

	Species.	Number examined.	Number infected.	Percentage infection.
Trapped rats	R. Rattus	[illegible]	8	0·05
	R. Norvegicus	[illegible]	5	0·1
	M. Musculus	[illegible]	—	—
	Bandicoots	—	—	—
Rats found dead	R. Rattus	[illegible]	9	12·2
	R. Norvegicus	120	8	6·67
	M. Musculus	[illegible]	2	20·0
	Bandicoots	—	—	—
Rats killed by Claytons	R. Rattus	[illegible]	3	0·41
	[illegible]	[illegible]	[illegible]	0·35
	M. [illegible]	[illegible]	—	—
	[illegible]	[illegible]	—	—
	Total	[illegible]	39	0·15

(32) *Rat Plague: [illegible] by Ward.*

Fort	[illegible]	[illegible]	2
Cost[illegible]	[illegible]	[illegible] North	5
Pettah	[illegible]	[illegible] South	8
Chalmers Granaries	[illegible]		
San Sebastian	[illegible]	Total	39
St. Paul's	[illegible]		

(33) [illegible]

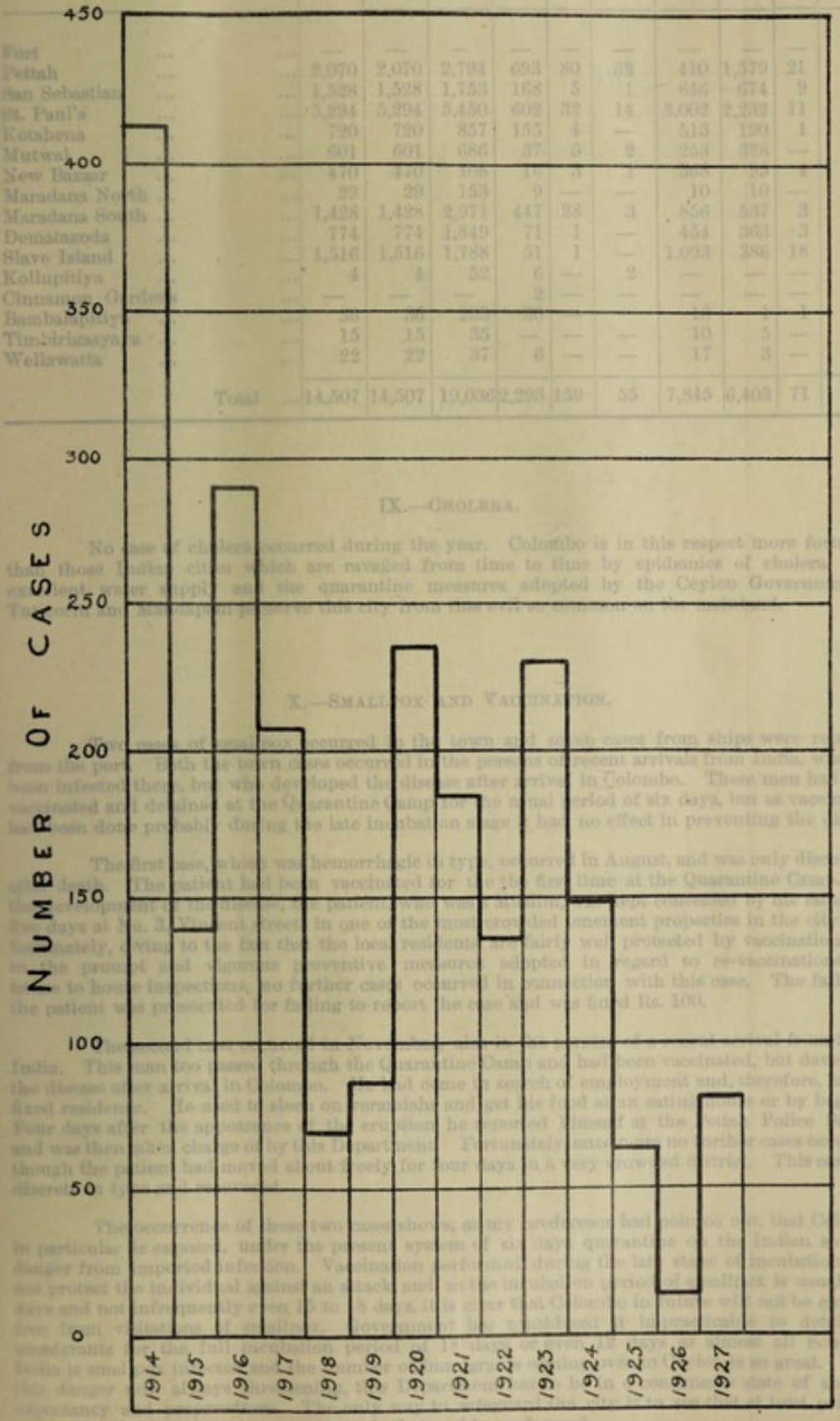
Month.	Number of Rats [illegible]: Veterinary Surgeon.	Chalmers' Granaries.	[illegible] Market.	Number of Rats Killed by [illegible]	[illegible] Rats.	Number of Rats found Dead: Veterinary Surgeon.	Plague Inspector.	Chalmers' Granaries.	[illegible] Market.	Total.
January	10,289	345	66	513	25	1	43	—	[illegible]	11,[illegible]
February	8,258	284	74	472	16	—	37	8	[illegible]	9,149
March	10,039	19[illegible]	83	222	6	—	30	4	[illegible]	10,[illegible]
April	9,286	167	57	161	3	—	2	1	[illegible]	[illegible]
May	11,401	153	55	106	[illegible]	—	[illegible]	—	[illegible]	[illegible]
June	12,232	149	64	13[illegible]	[illegible]	—	[illegible]	3	[illegible]	[illegible]
July	11,624	190	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	[illegible]	[illegible]
August	12,[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
September	12,[illegible]	163	35	64	[illegible]	—	1	1	—	13,[illegible]11
October	13,000	310	32	107	1	—	3	2	—	13,[illegible]
November	14,227	229	59	90	2	13	9	—	—	14,629
December	14,231	226	39	139	—	1	7	—	—	14,633
Total	142,410	2,602	720	2,293	55	15	159	25	1	148,280

[illegible] supplied by the Chairman, Board of Immigration and Quarantine, Colombo.

DIAGRAM Nº IV

HUMAN PLAGUE CASES

1914 to 1927



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17 3 28

DIAGRAM No. IV.

HUMAN PLAGUE CASES

1914 to 1927

(34) *Work done by the Plague Staff during the Year 1927.*

Ward.	No. of Dwellings Claytonized.	No. of Dwellings Unroofed.	No. of Rat Holes Claytonized.	No. of Rats killed by Claytons.	No. of Recently Dead Rats found	No. of Mummified Rats found.	No. of Dwellings Pesterined.	No. of Dwellings Disinfected.	No. of Rat Nests found.	No. of Cart Loads of Rubbish removed.
Fort	—	—	—	—	—	—	—	—	—	—
Pettah	2,070	2,070	2,794	693	80	32	410	1,579	21	212½
San Sebastian	1,528	1,528	1,753	168	5	1	846	674	9	89¾
St. Paul's	5,294	5,294	5,450	602	32	14	3,002	2,232	11	305¼
Kotahena	720	720	857	155	4	—	513	190	1	36
Mutwal	601	601	686	37	5	2	253	328	—	26¾
New Bazaar	470	470	408	16	3	1	368	95	4	19¾
Maradana North	29	29	153	9	—	—	10	10	—	5½
Maradana South	1,428	1,428	2,971	447	28	3	856	537	3	111½
Dematagoda	774	774	1,849	71	1	—	454	363	3	84½
Slave Island	1,516	1,516	1,788	51	1	—	1,093	386	18	42¼
Kollupitiya	4	4	52	6	—	2	—	—	—	—
Cinnamon Gardens ...	—	—	—	2	—	—	—	—	—	—
Bambalapitiya	36	36	203	30	—	—	13	1	1	3¼
Timbirigasyaya	15	15	35	—	—	—	10	5	—	—
Wellawatta	22	22	37	6	—	—	17	3	—	3
Total ...	14,507	14,507	19,036	2,293	159	55	7,845	6,403	71	939¾

IX.—Cholera.

No case of cholera occurred during the year. Colombo is in this respect more fortunate than those Indian cities which are ravaged from time to time by epidemics of cholera. Our excellent water supply and the quarantine measures adopted by the Ceylon Government at Tuticorin and Mandapam preserve this city from this evil so common on the mainland.

X.—Smallpox and Vaccination.

Two cases of smallpox occurred in the town and seven cases from ships were reported from the port. Both the town cases occurred in the persons of recent arrivals from India, who had been infected there, but who developed the disease after arrival in Colombo. These men had been vaccinated and detained at the Quarantine Camp for the usual period of six days, but as vaccination had been done probably during the late incubation stage it had no effect in preventing the disease.

The first case, which was hemorrhagic in type, occurred in August, and was only discovered after death. The patient had been vaccinated for the the first time at the Quarantine Camp. On the development of the disease, the patient, who was a Muslim, was kept concealed by his father for five days at No. 3, Vincent street, in one of the most crowded tenement properties in the city, but, fortunately, owing to the fact that the local residents are fairly well protected by vaccination, and to the prompt and vigorous preventive measures adopted in regard to re-vaccinations and house to house inspections, no further cases occurred in connection with this case. The father of the patient was prosecuted for failing to report the case and was fined Rs. 100.

The second case occurred in November, also in the person of a recent arrival from South India. This man too passed through the Quarantine Camp and had been vaccinated, but developed the disease after arrival in Colombo. He had come in search of employment and, therefore, had no fixed residence. He used to sleep on verandahs and get his food at an eating-house or by begging. Four days after the appearance of the eruption he reported himself at the Pettah Police Station and was then taken charge of by this Department. Fortunately, once more no further cases occurred, though the patient had moved about freely for four days in a very crowded district. This case was discrete in type and recovered.

The occurrence of these two cases shows, as my predecesor had pointed out, that Colombo in particular is exposed, under the present system of six days quarantine on the Indian side, to danger from imported infection. Vaccination performed during the late stage of incubation does not protect the individual against an attack, and, as the incubation period of smallpox is usually 12 days and not infrequently even 15 to 18 days, it is clear that Colombo in future will not be entirely free from visitations of smallpox. Government has considered it impracticable to detain all immigrants for the full incubation period of 18 days or even 12 days as almost all Southern India is smallpox infected and the number of immigrants coming over to Ceylon is so great. With this danger now always threatening, this Department has to be in a continuous state of anxious expectancy and preparedness. The only way to safeguard the city is to see that at least primary vaccination, which alone is compulsory, is thoroughly performed.

Vaccination.

The following statement shows the details of vaccinations during 1927 :—

(35) *Details of Vaccinations performed during the Year 1927.*

(*a*) By Government Vaccinators.

(Figures supplied by the Provincial Surgeon, Western Province.)

Station.	Number of Primary Vaccinations.	Number of Re-vaccinations.	Total.
Layard's broadway ...	680	—	680
Bambalapitiya ...	567	498	1,065
Slave Island	445	44	489
Silversmith street ...	352	6	358
Kotahena and Alutmawata...	429	—	429
Maradana	581	50	631
San Sebastian street ...	382	—	382
Timbirigasyaya and Dematagoda	628	6	634
Itinerating	418	—	418
Total ...	4,482	604	5,086

(*b*) By the Public Health Department.

Ward.	Number of Primary Vaccinations.	Number of Re-vaccinations.	Total.
St. Paul's	3	124	127
New Bazaar	60	618	678
Total ...	63	742	805

(*c*) Total Vaccinations in Colombo.

Primary vaccinations	4,545
Re-vaccinations	1,346
Total ...	5,891

XI.—Chickenpox.

937 cases of chickenpox were reported during the year, of which 887 were town cases, 18 from ships in the port, and 32 from outside city limits. The town cases showed a reduction in numbers as compared with 1926, in which year there were 1,045 cases. There were no deaths reported.

As Statement 36 shows the highest incidence was among the Malayalees who had a case-rate of 50·2 per 1,000, an extraordinarily high rate! This is mainly due to the conditions under which they live. Hundreds of Malayalees come over from Malabar every year in search of employment, and being on the whole law-abiding, sober in habits, and good workmen they are being employed in large numbers in Government and private workshops, in factories, bungalows, &c. As a rule these men do not bring their women folk out with them and thirty to fifty of them club together in one house and when a case of chickenpox occurs in one of these overcrowded chummeries the whole lot of them get infected. As pointed out in the section on Housing the conditions under which the majority of labourers live in Colombo are scandalous, and it is up to the employers of labour to provide their labour with decent living conditions.

The Infectious Diseases Hospital at Angoda has 24 beds (12 male and 12 female) for chickenpox, but at the height of the chickenpox season, which is usually during the first four or five months of the year, it is not an uncommon sight to see 50 to 75 male chickenpox patients in hospital at one time.

The highest number of cases came, as Statement 37 shows, from the Maradana North and Slave Island Wards, in both of which large numbers of Malayalee labourers live.

Statement 38 shows incidence according to age. The largest number of cases occurred among young adults.

(36) *Chickenpox in Colombo Town during the Year 1927. (Town Cases.)*

Racial Incidence.

Race.	No. of Cases.	Rate per 1,000 Population.
Europeans	3	0·99
Burghers	41	2·57
Sinhalese	223	1·81
Tamils	59	1·02
Moors	23	0·54
Malays	11	1·76
Malayalees	524	50·2
Others	3	1·15

(37) *Chickenpox in Colombo Town during the Year 1927. (Town Cases.)*

Distribution by Wards.

Ward.	No. of Cases.	Ward.	No. of Cases.
Fort	6	Kollupitiya ...	16
Pettah	14	Cinnamon Gardens ...	6
San Sebastian	27	Bambalapitiya ...	24
St. Paul's	21	Timbirigasyaya ...	9
Kotahena	59	Wellawatta ...	56
Mutwal	60	Untraced ...	112
New Bazaar	90	No fixed residence ...	34
Maradana North ...	148		
Maradana South ...	52		
Dematagoda	42	Total ...	887
Slave Island	111		

(38) *Chickenpox in Colombo Town during the Year 1927. (Town Cases.)*

Distribution according to Age.

Under 1 year ...	3	30 years and under 35 ...	90
1 year and under 2 ...	4	35 years and under 40 ...	79
2 years and under 3 ...	7	40 years and under 50 ...	67
3 years and under 4 ...	7	50 years and under 60 ...	8
4 years and under 5 ...	2	60 years and under 70 ...	4
5 years and under 10 ...	38	70 years and under 80 ...	3
10 years and under 15 ...	53	80 years and over ...	1
15 years and under 20 ...	122		
20 years and under 25 ...	239	Total ...	887
25 years and under 30 ...	160		

(39) *Chickenpox in Colombo during the Year 1927. (Town Cases.)*

Monthly Incidence.

Month.	No. of Cases.	Month.	No. of Cases.
January	145	September	35
February	132	October	39
March	163	November	49
April	110	December	53
May	70		
June	34	Total ...	887
July	27		
August	30		

XII.—Measles.

119 cases of measles were reported during the year; of these, 102 were from the town, 2 from ships, and 15 from outside city limits. The town cases showed a very considerable reduction in numbers as compared with 1926, in which year there were 518 town cases. Of the 102 town cases in 1927, 48 cases were of children under ten years of age. There were no deaths.

(40) *Measles Town Cases, 102.—Number at each Age Period.*

Age Period.	No. of Cases.	Age Period.	No. of Cases.
0 to 5 years	25	30 to 35 years	6
5 to 10 years	23	35 to 40 years	—
10 to 15 years	15	40 to 50 years	2
15 to 20 years	17		
20 to 25 years	12	Total ...	102
25 to 30 years	2		

(41) *Monthly Incidence of Measles.*

Month.	No. of Cases.	Month.	No. of Cases.
January	8	September	25
February	6	October	14
March	9	November	3
April	6	December	15
May	1		
June	1	Total ...	102
July	3		
August	15		

XIII.—Diphtheria.

Twenty-nine cases of diphtheria were reported during the year, of which 18 were cases infected in the town and 11 from outside town limits. Of the 29 cases the seat of affection was the throat in 24 cases, the nose in 4, and the right eyelid in 1 case. The large majority of cases, namely, 23, occurred in children under 12 years of age.

In the majority of cases it was not possible to discover the source of infection, but on investigation foul drains, very dirty fowl pens, &c., were found on a number of premises which, it is presumed, caused bad, irritable throats which formed a suitable soil for the specific infection. In one case a small button in the nose had produced a catarrhal condition of the nose which subsequently became infected. In another case of a school-going child three carriers were detected in his class, and one of these carriers was responsible for another case which had visited the house of the carrier. Four cases ended fatally.

XIV.—Diarrhœa and Dysentery.

(*a*) *Diarrhœa and Enteritis.*

Deaths 519; death-rate 1·98, as against 575 deaths and a death-rate of 2·22 in the previous year. This is a slight improvement. Of the 519 deaths, 165 were of infants under one year of age.

(*b*) *Dysentery.*

There was a marked drop in the number of deaths last year, there being 154, as against 213 in the previous year. Four of these cases were specified as amœbic and five as bacillary and the rest were unspecified. Five of the deaths were of infants under one year of age.

Racially the Sinhalese and Tamils suffered most. The largest number of deaths occurred during the months of July and August and the wards with the highest mortality were Mutwal, New Bazaar, Kotahena, Dematagoda, and St. Paul's, in all of which sewage disposal is still far from satisfactory.

(42) *Diarrhœal Diseases, 1927, by Race.—Deaths and Death-rates per 1,000 Population.*

		All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
Diarrhœa and Enteritis	Deaths	519	—	20	308	103	68	12	8
	Death-rate	1·98	—	1·25	2·51	1·77	1·60	1·91	0·61
Dysentery	Deaths	154	3	6	85	40	15	3	2
	Death-rate	0·59	0·99	0·38	0·69	0·69	0·35	0·48	0·15
All Diarrhœal	Deaths	673	3	26	393	143	83	15	10
	Death-rate	2·57	0·99	1·63	3·20	2·46	1·95	2·39	0·77

(43) *Deaths from Diarrhœal Diseases during the Year 1927.*

Distribution by Ward.

Ward.	Diarrhœa and Enteritis.	Dysentery.	Total
Fort	—	—	—
Pettah	4	—	4
San Sebastian	10	7	17
St. Paul's	40	13	53
Kotahena	52	12	64
Mutwal	73	14	87
New Bazaar	63	13	76
Maradana North	42	5	47
Maradana South	19	11	30
Dematagoda	42	12	54
Slave Island	31	10	41
Kollupitiya	20	2	22
Cinnamon Gardens	5	2	7
Bambalapitiya	5	1	6
Timbirigasyaya	14	4	18
Wellawatta	24	4	28
Untraced	3	3	6
Port	—	2	2
Beyond limits	72	38	110
Total	519	154	673

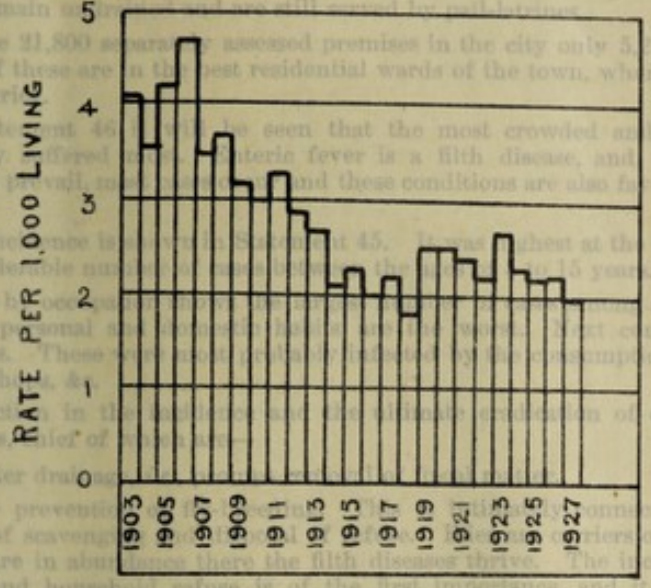
(44) *Deaths from Diarrhœal Diseases, 1927.*

Mortality by Months.

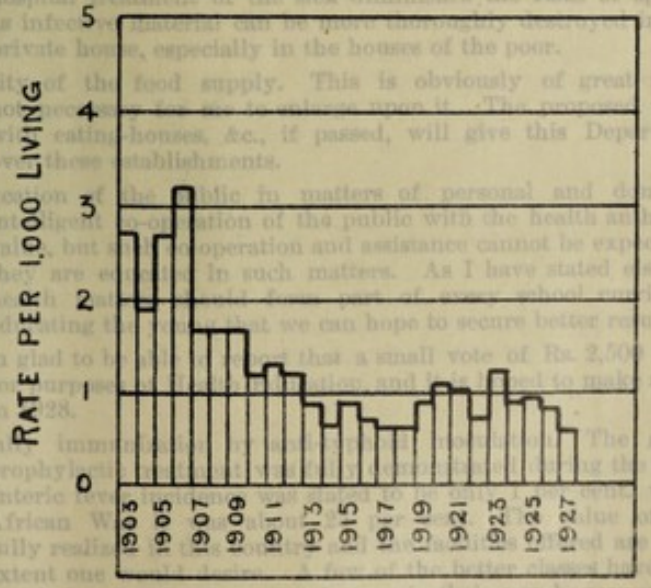
Month.	Diarrhœa and Enteritis.	Dysentery.	Total.
January	37	19	56
February	38	12	50
March	38	8	46
April	37	14	51
May	38	7	45
June	33	7	40
July	72	22	94
August	76	24	100
September	41	7	48
October	44	12	56
November	26	12	38
December	39	10	49
Total	519	154	673

DIAGRAM No. V

(a) DIARRHOEA & ENTERITIS. 1903 - 1927
DEATH RATE PER 1,000 LIVING



(b) DYSENTERY. 1903 - 1927
DEATH-RATE PER 1,000 LIVING



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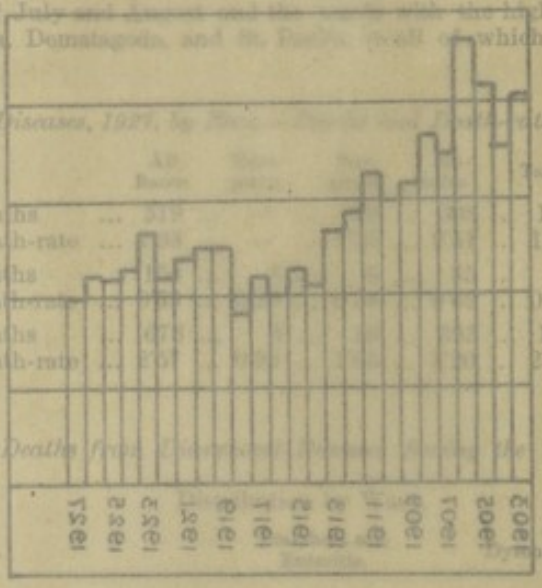
17. 3. 28.

DIAGRAM No. V

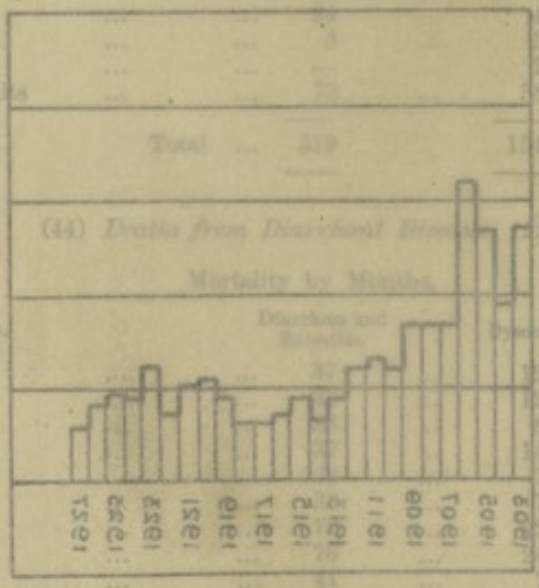
(a) DIARRHOEA & ENTERITIS - 1903 - 1927

DEATH RATE PER 1000 LIVING



(b) DYSENTERY - 1903 - 1927

DEATH-RATE PER 1,000 LIVING



XV.—Enteric Fever.

It is gratifying to be able to report a further improvement as regards the incidence of enteric fever in the town, the figure for 1927 having reached the lowest on record, namely, 206, as against 249 in the previous year and 229 in 1914.

There were 4 port cases and 217 outside cases, making a total of 427, as against 477 in 1926. The death-rate was 0·47, as against 0·62. Taking only the town cases into consideration the death-rate was 0·26 per 1,000.

These satisfactory results are mainly due to the special attention paid to pail-privies and to the fly-breeding places within and just outside the town, both of which are the principal sources of infection in Colombo.

Colombo is not completely sewered yet, and, even in the sewered districts hundreds of premises still remain undrained and are still served by pail-latrines.

Out of the 21,800 separately assessed premises in the city only 5,218 have been drained, and the majority of these are in the best residential wards of the town, where the general sanitary conditions are superior.

From Statement 46 it will be seen that the most crowded and insanitary wards of the town naturally suffered most. Enteric fever is a filth disease, and, where filth and bad sanitary conditions prevail, most cases occur and these conditions are also favourable for the spread of the disease.

The age incidence is shown in Statement 45. It was highest at the age period of 15 to 30 years, with a considerable number of cases between the ages of 5 to 15 years.

Incidence by occupation shows the largest number of cases among coolies. This is to be expected as their personal and domestic habits are the worst. Next come domestic servants, students, and clerks. These were most probably infected by the consumption of infected food in eating-houses, tea-shops, &c.

The reduction in the incidence and the ultimate eradication of enteric fever depends upon certain factors, chief of which are—

1. Better drainage, *i.e.*, prompt removal of fœcal matter.
2. The prevention of fly-breeding. This is intimately connected with the question of scavenging and disposal of refuse. Flies are carriers of filth and where flies are in abundance there the filth diseases thrive. The incineration of all town and household refuse is of the first importance, and it is hoped that, with the installation of a second destructor already sanctioned by Council, the dumping of refuse within or in the near vicinity of the town will be altogether stopped. The measures adopted last year of effectually covering the refuse with a good layer of earth, spraying with crude oil and keeping slow-burning fires going have diminished very considerably the fly nuisance which threatened to assume serious proportions last year.
3. Isolation and treatment of all cases in hospital. This is of the greatest value to the patient and the public. People are still very reluctant to go to hospital and consider removal as interference with their personal liberty. They do not realize that they can be better treated in a hospital, where trained nurses and everything necessary is at hand, than in a private house, where well-meaning but ignorant relatives and friends prejudice the patient's chances of recovery by meddlesome interference and advice. To the public it is of value in that hospital treatment of the sick diminishes the risks of spreading the disease, as infective material can be more thoroughly destroyed in a hospital than in a private house, especially in the houses of the poor.
4. Purity of the food supply. This is obviously of great importance and it is not necessary for me to enlarge upon it. The proposed new by-laws dealing with eating-houses, &c., if passed, will give this Department better control over these establishments.
5. Education of the public in matters of personal and domestic hygiene. The intelligent co-operation of the public with the health authorities is of immense value, but such co-operation and assistance cannot be expected or secured unless they are educated in such matters. As I have stated elsewhere, education in health matters should form part of every school curriculum, and it is by educating the young that we can hope to secure better results in the future.

   I am glad to be able to report that a small vote of Rs. 2,500 has been sanctioned for purposes of Health Education, and it is hoped to make a start in a small way in 1928.
6. Finally immunization by anti-typhoid inoculation. The great value of such prophylactic treatment was fully demonstrated during the Great War, when the enteric fever incidence was stated to be only 1 per cent., whereas in the South African War it was about 25 per cent. The value of inoculation is not fully realized in this country and the facilities offered are not availed of to the extent one would desire. A few of the better classes have recourse to it, but it is chiefly on the occurrence of a case in their own houses or close vicinity. The classes that are most exposed to infection rarely, if ever, take advantage of this treatment. Their ignorance breeds an unreasonable distrust and fear of all forms of inoculations. We must look to education to bring knowledge and wisdom. As some one has aptly said "Education brings sunshine into the heart and drives moonshine out of the head." Until the masses are better educated we cannot hope to utilize this valuable weapon in the prevention of disease.

(45) *Enteric Fever during the Year 1927 (inclusive of Port and Outside Cases). Distribution by Race, Sex and Age. Number of Cases.*

Race.	Sex	0 to 5 Years.	5 Years to 10 Years.	10 Years to 15 Years.	15 Years to 20 Years.	20 Years to 25 Years.	25 Years to 30 Years.	30 Years to 35 Years.	35 Years to 40 Years.	40 Years to 50 Years.	50 Years to 60 Years.	60 Years and Over.	Total.	Total of each Race.	Number of Deaths.	Case-rate per 1,000 Population.	Death-rate per 1,000 Population.	Case Mortality Per Cent.
All Races...	Males	6	18	23	41	52	40	17	14	18	6	1	236	427	124	1·63	0·47	29·0
	Females	9	22	21	33	34	29	14	11	11	7	—	191					
Europeans.	Males	—	—	—	1	—	3	—	—	3	—	—	7	8	2	2·63	0·66	25
	Females	—	—	—	—	—	—	—	—	1	—	—	1					
Burghers...	Males	1	2	1	5	3	—	2	—	2	—	—	16	26	2	1·63	0·13	7·7
	Females	—	1	1	1	4	1	—	1	1	—	—	10					
Sinhalese...	Males	5	13	18	22	34	22	13	8	9	5	1	150	303	84	2·47	0·68	27·7
	Females	6	16	19	29	24	24	12	9	8	6	—	153					
Tamils ...	Males	—	2	3	4	6	2	1	1	1	1	—	21	32	10	0·55	0·17	31·3
	Females	—	2	1	2	1	2	1	—	1	1	—	11					
Moors ...	Males	—	1	—	1	2	2	—	2	3	—	—	11	19	6	0·45	0·14	31·6
	Females	2	3	—	—	1	1	1	—	—	—	—	8					
Malays ...	Males	—	—	—	2	—	—	—	1	—	—	—	3	8	3	1·27	0·48	37·5
	Females	1	—	—	1	3	—	—	—	—	—	—	5					
Others ...	Males	—	—	1	6	7	11	1	2	—	—	—	28	31	17	2·38	1·30	54·8
	Females	—	—	—	—	1	1	—	1	—	—	—	3					

(46) *Enteric Fever and Continued Fever by Wards, 1927. Number of Cases, and Case-rate per 1,000 Population.*

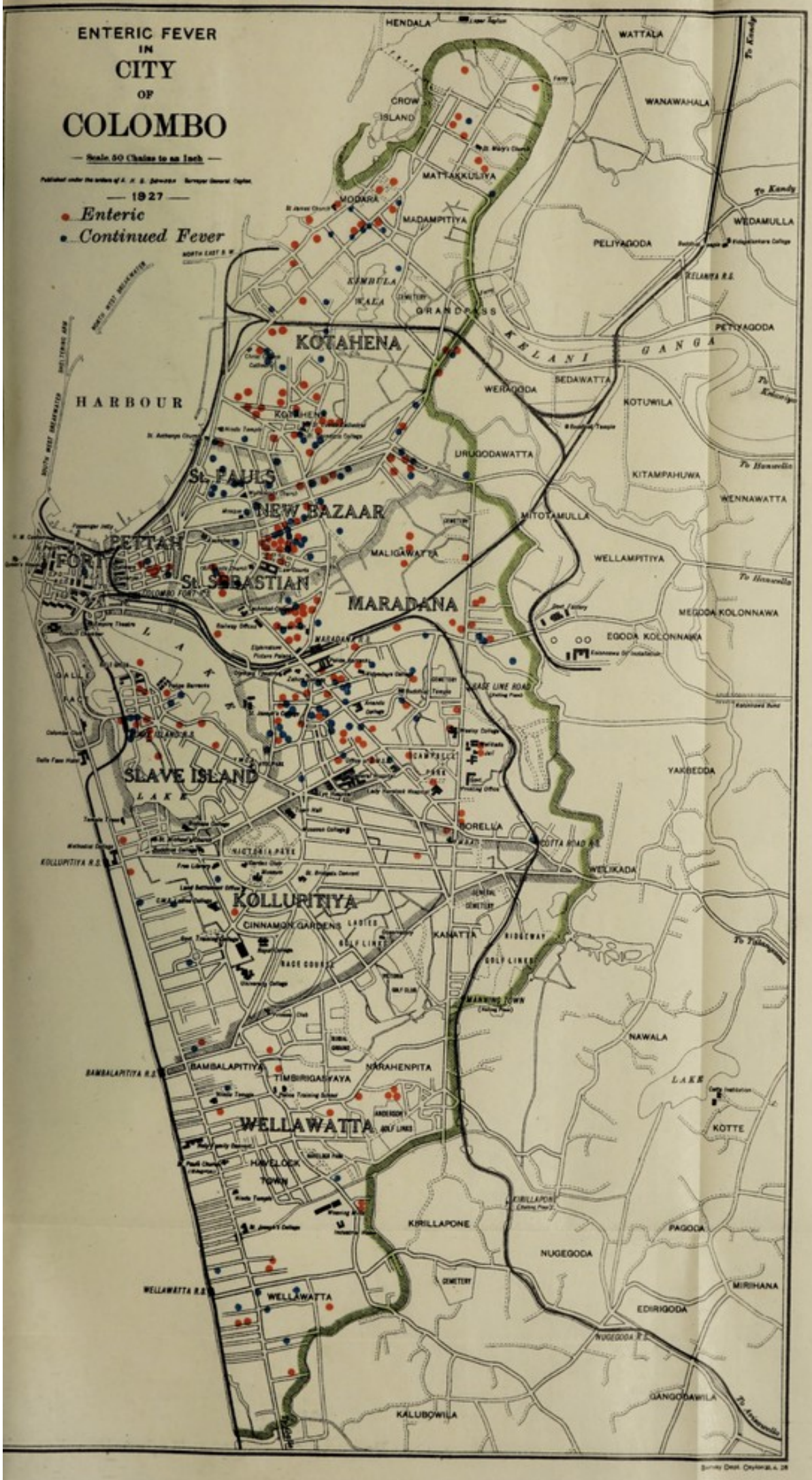
Ward.	Enteric Fever. No. of Cases.	Enteric Fever. Case-rate.	Continued Fever. No. of Cases.	Continued Fever. Case-rate.	Total. No. of Cases.	Total. Case-rate.
Colombo (inclusive of Port and Outside)	427	1·63	176	0·67	603	2·30
Colombo (exclusive of Port and Outside)	206	0·79	136	0·52	342	1·31
Fort	1	0·35	1	0·35	2	0·69
Pettah	6	0·74	4	0·49	10	1·23
San Sebastian	7	0·57	3	0·24	10	0·81
St. Paul's	2	0·08	10	0·40	12	0·48
Kotahena	18	0·61	18	0·61	36	1·22
Mutwal	23	1·15	11	0·55	34	1·70
New Bazaar	23	0·92	20	0·80	43	1·72
Maradana North	25	1·08	8	0·35	33	1·43
Maradana South	15	0·75	18	0·91	33	1·66
Dematagoda	17	0·91	12	0·64	29	1·55
Slave Island	14	0·61	9	0·39	23	0·99
Kollupitiya	5	0·33	5	0·33	10	0·65
Cinnamon Gardens ...	3	0·30	2	0·20	5	0·49
Bambalapitiya	1	0·10	1	0·10	2	0·20
Timbirigasyaya	8	1·19	1	0·15	9	1·33
Wellawatta	11	0·95	4	0·34	15	1·29
Vagrants and Untraced ...	27	—	9	—	36	—
Port	4	—	—	—	4	—
Outside Municipal limits ...	217	—	40	—	257	—

(47) *Enteric Fever and Continued Fever during the Year 1927, by Race. (Inclusive of Port and Outside Cases and Deaths.)*

Cases, Deaths, and Case-rates and Death-rates per 1,000 Population.

		All Races.	Europeans.	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.
Enteric fever ...	Cases	427	8	26	303	32	19	8	31
	Case-rate	1·63	2·63	1·63	2·47	0·55	0·45	1·27	2·38
	Deaths	124	2	2	84	10	6	3	17
	Death-rate	0·47	0·66	0·13	0·68	0·17	0·14	0·48	1·30
Continued fever.	Cases	176	2	5	111	25	18	4	11
	Case-rate	0·67	0·66	0·31	0·90	0·43	0·42	0·64	0·84
	Deaths	59	—	1	28	15	11	3	1
	Death-rate	0·23	—	0·06	0·23	0·26	0·26	0·48	0·08
Total ...	Cases	603	10	31	414	57	37	12	42
	Case-rate	2·30	3·29	1·95	3·37	0·98	0·87	1·91	3·22
	Deaths	183	2	3	112	25	17	6	18
	Death-rate	0·70	0·66	0·19	0·91	0·43	0·40	0·96	1·38

SPOT MAP № II


ENTERIC FEVER
IN
CITY
OF
COLOMBO
— Scale 50 Chains to an Inch —
— 1927 —
Enteric
Continued Fever
HENDALA
WATTALA
CROW ISLAND
WANAWAHALA
MATTAKKULIYA
MODARA
MADAMPITIYA
WEDAMULLA
PELIYAGODA
KOTAHENA
GRANDPASS
KELANI GANGA
PETTAGODA
HARBOUR
SEDAWATTA
WERAGODA
KOTUWILA
URUGODAWATTA
KITAMPAHUWA
St. PAULS
NEW BAZAAR
WENNAWATTA
MITOTAMULLA
PETTAH
FORT
MALIGAWATTA
WELLAMPITIYA
St. SEBASTIAN
MARADANA
MEGODA KOLONNAWA
EGODA KOLONNAWA
SLAVE ISLAND
LAKE
YAKKEDDA
BORELLA
WELIKADA
KOLLUPITIYA
CINNAMON GARDENS
KANATTA
NAWALA
BAMBALAPITIYA
NARAHENPITA
TIMBIRIGASKAYA
LAKE
WELLAWATTA
KOTTE
HAVELOCK TOWN
KIRILLAPONE
PAGODA
NUGEGODA
MIRIHANA
EDIRIGODA
KALUBOWILA
GANGODAWILA

SPOT MAP No II

ENTERIC FEVER
IN
CITY
OF
COLOMBO

— 1927 —

• Enteric
• Continued Fever

KOTAHENA
HARBOUR
MARADANA
SLAVE ISLAND
KOLLUPITIYA
WELLAWATTA

DIAGRAM N° VI

ENTERIC FEVER (TOWN CASES ONLY)

1906 to 1927

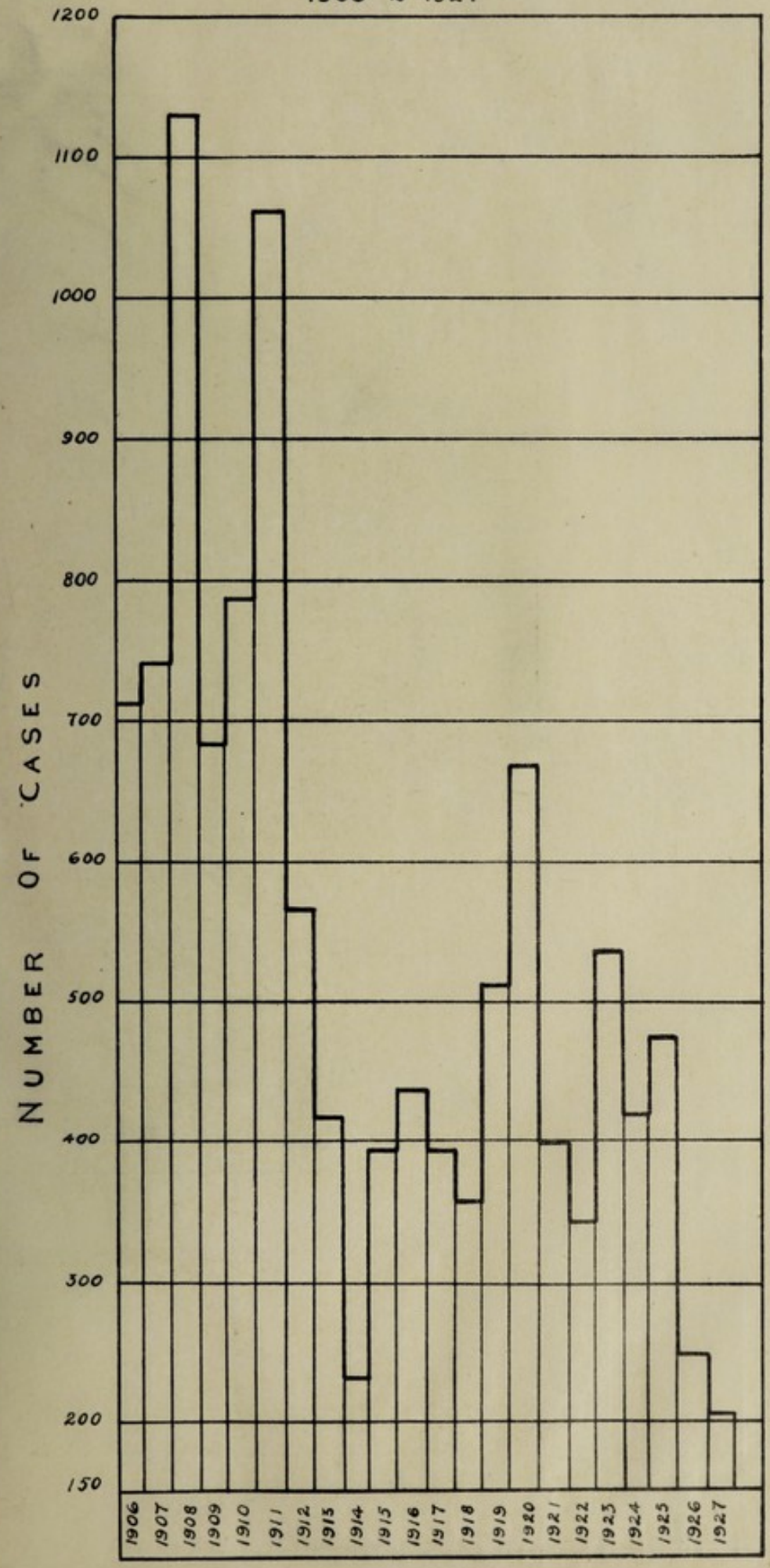


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DIAGRAM N° VI

ENTERIC FEVER (TOWN CASES ONLY)

1906 to 1927

(48) *Enteric Fever by Race during the Year 1927. Cases and Case-rate for— (a) All Town Cases; (b) Town Cases exclusive of Cases infected Outside Colombo.*

Race.	(a) All Town Cases.		(b) Town Cases (exclusive of Cases Infected Outside Colombo.)	
	No. of Cases.	Case-rate per 1,000 Population.	No. of Cases.	Case-rate per 1,000 Population.
All Races	206	0·79	188	0·72
Europeans	—	—	—	—
Burghers	22	1·38	18	1·13
Sinhalese	108	0·88	97	0·79
Tamils	25	0·43	23	0·40
Moors	16	0·38	16	0·38
Malays	8	1·27	8	1·27
Others	27	2·07	26	1·99

(49) *Enteric Fever, 1927—Occupational Incidence.*

Occupation.	No of Cases.	Occupation	No. of Cases.
Nurses	2	Traders	1
Police Constables	3	Merchants	1
Watchers	2	Lawyers	1
Coolies	23	Electricians	1
Vedaralas	1	Priests	1
Clerks	7	Carpenters	1
Jail Guards	2	Firemen	1
Peons	3	Cleaners	1
Fishermen	1	Apprentices	1
Drivers	2	No occupation	132
Domestic Servants... ...	8		
Masons	2	Total ...	206
Brokers	1		
Students	8		

XVI.—Continued Fever.

Total number of cases 176, case-rate 0·67 per thousand; Number of deaths 59 per thousand, death-rate 0·23 per thousand. Out of the 176 cases, 40 were outside cases and 136 were town cases, as against 168 in 1926.

A good number of the fatal cases of continued fever must have been undiagnosed cases of enteric fever.

From the Spot Map and Statement 46 it will be seen that the distribution of these cases closely resembles the distribution of enteric fever. Where enteric prevails most there the so-called continued fever cases are highest. Owing to the fact that a large number of the less educated people still have recourse to Ayurvedic treatment a number of cases escape correct diagnosis. These cases are, however, regarded as possible enteric cases and the patients' houses and linen are thoroughly disinfected.

XVII.—Pulmonary Tuberculosis.

(Phthisis pulmonalis, Consumption.)

1,221 cases with 594 deaths were reported during the year, of which 810 were town cases, 393 outside cases, and 18 port cases. The town cases showed an improvement as compared with the previous year, when there were 977 cases. The death-rate was the same as last year, viz., 2·27 per thousand.

Spot Map No. III. and Statement 52 show the distribution of the town cases. The majority of cases occurred, as usual, in the congested areas of the town where the housing conditions are bad.

Statement 51 shows the incidence among the indigenous races. The Malays, as usual, had the highest death-rate, viz., 3·35 per thousand.

Phthisis or consumption, as it is known to the lay public, is a preventable disease. Its incidence in any community is in a measure a good index of the housing, industrial, and economic conditions of the people and their education in matters of personal and public hygiene. Every year phthisis takes a heavy toll in human lives and the suffering, sorrow, and waste caused by this scourge of humanity is incalculable. A great deal of knowledge concerning the disease is now available. We know the *causa causans* of the disease, the source of infection, and the modes of entrance; how by vitiated air and insufficient food, leading to ill-nutrition, the germ establishes itself; how to diagnose the malady; and how finally it could be prevented and, in early stages, cured.

It has been computed that to every case that ends fatally there are at least five infected cases or more. This shows how serious the problem is and why every effort should be made to effect a marked reduction in the incidence of the disease, as every active case of phthisis is a source of potential danger and a focus of infection to the healthy since the disease is mainly spread in this country from person to person through direct contact. The importance from a health point of view of improving the housing conditions and of relieving the congestion and overcrowding has been frequently pointed out, and until this question is seriously tackled any appreciable diminution in the incidence of the disease cannot be hoped for.

At the Annual Conference of the National Association for the Prevention of Tuberculosis held on June 30, 1927, Mr. Neville Chamberlain, Minister of Health, who opened the Conference was reported to have made the following remarks :—

> "The decline of tuberculosis should be ascribed to the improvement in the surroundings and the social conditions of the people, and the adoption of definite measures for the prevention and treatment of the disease . . . . . Among the conditions which affected the incidence of tuberculosis, one of the most dominating was that of housing. Tuberculosis is a disease of dirt, and its greatest enemies are fresh air and sunlight. Its strongholds are to be found in the close and dingy dens existing in most of the large cities and the efforts which have been made by men like Sir John Robertson to purify these foul spots must have had much to do with the improvement we now have to record."

We cannot do better in this country than tackle the problem in the same way by getting to the root cause of the matter. Improvement of the housing conditions is the main thing, but that alone is not sufficient. Other measures necessary are early notification, diagnosis, segregation of the infective, medical inspection at regular intervals of workmen in factories, and last but not least a campaign of education. Everything should not be expected of the State. Individuals can help a great deal, but we cannot expect intelligent co-operation from the lay public unless they are properly educated in health matters.

Every school in the city and Island should devote at least one hour a week to the study of questions affecting health, and this should be made a compulsory subject in the curriculum of studies. Sir John Robertson, Medical Officer of Health for Birmingham, made the following remarks at the same conference :—

> "I am strongly of opinion that if you could have perfectly healthy living under good conditions it would have a wonderful result. I cannot see why the education of the young in methods of looking after their bodies and keeping them healthy should not receive more attention than it does at the present time. I am not quite sure that a subject of such educational value should not be made a compulsory subject in a matriculation examination, so as to put on a sound basis the question of knowledge of the human body and how to keep it in good working order.
>
> The question of the economic status is very near to the point. Of course a man needs money to live in a good house and feed himself properly, but he will not do that unless he has the knowledge how to spend the money and what kind of a house is necessary for the prevention of disease. Education comes before economic conditions, but I believe that education will bring about an improvement in economic conditions."

(50) *Phthisis Mortality per 1,000 Living, 1903 to 1927.*

Year.	Death-rate.	Year.	Death-rate.	Year.	Death-rate.
1903	3·18	1912	3·14	1921	3·02
1904	3·51	1913	2·88	1922	2·58
1905	3·56	1914	3·12	1923	2·90
1906	4·06	1915	3·16	1924	2·69
1907	3·79	1916	3·42	1925	2·81
1908	3·70	1917	2·84	1926	2·27
1909	4·13	1918	2·86	Average,	
1910	3·13	1919	2·95	1903–1926	3·15
1911	2·96	1920	3·02	1927	2·27

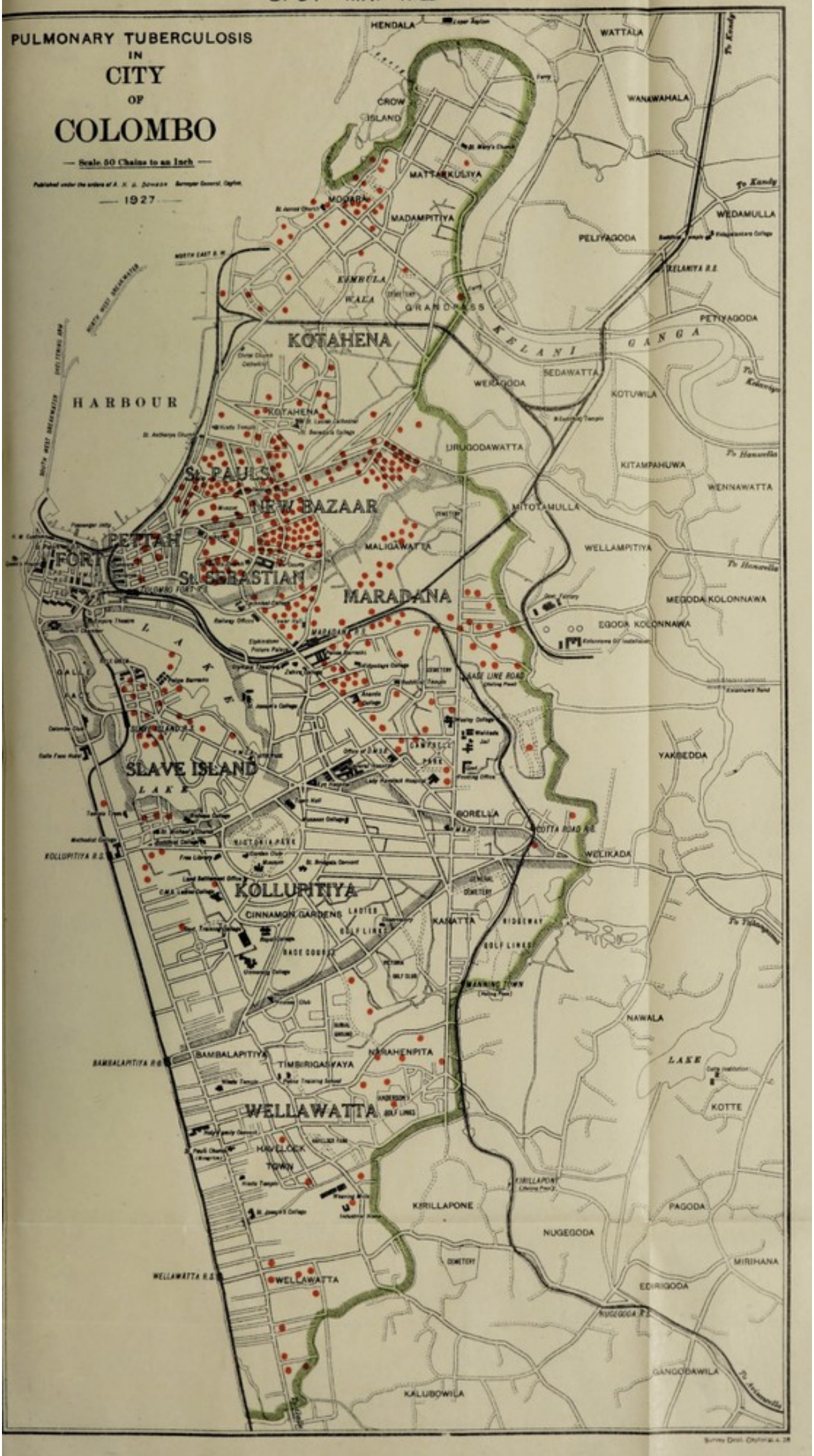
(51) *Phthisis during 1927 among Indigenous Races—Death-rates per 1,000 Population by Race and Sex.*

Race.	Death-rates per 1,000 Population.		Both Sexes.	
	Males.	Females.	No. of Deaths.	Rate per 1,000 Population.
Burghers	1·68	1·46	25	1·57
Sinhalese	2·48	3·40	356	2·90
Tamils	—	—	88	1·52
Moors	1·23	3·05	81	1·90
Malays	3·31	3·39	21	3·35
Others	1·26	3·53	19	1·46

(52) *Incidence of Phthisis during 1927, by Wards.*

Ward.	No. of Cases.	Ward.	No. of Cases.
Fort	1	Bambalapitiya	9
Pettah	6	Thimbirigasyaya	17
San Sebastian	20	Wellawatta	21
St. Paul's	41	Vagrants	20
Kotahena	57	Untraced	250
Mutwal	67		
New Bazaar	82	Total Town	810
Maradana North	60	Port	18
Maradana South	42	Beyond Limits	393
Dematagoda	43		
Slave Island	45	Grand Total	1,221
Kollupitiya	22		
Cinnamon Gardens	7		

SPOT MAP №III


PULMONARY TUBERCULOSIS
IN
CITY
OF
COLOMBO
— Scale 50 Chains to an Inch —
— 1927 —
HENDALA
WATTALA
CROW ISLAND
WANAWAHALA
MATTAKKULIYA
MODARA
MADAMPITIYA
WEDAMULLA
PELIYAGODA
KELANIYA R.S.
KIMBULA WALA
GRANDPASS
KOTAHENA
KELANI GANGA
PETTAGODA
HARBOUR
SEDAWATTA
WERAGODA
KOTUWILA
KOTAHENA
URUGODAWATTA
KITAMPAHUWA
St. PAUL'S
NEW BAZAAR
WENNAWATTA
MITOTAMULLA
PETTAH
FORT
MALIGAWATTA
WELLAMPITIYA
St. SEBASTIAN
MARADANA
MEGODA KOLONNAWA
EGODA KOLONNAWA
BASE LINE ROAD
YAKBEDDA
SLAVE ISLAND
LAKE
BORELLA
WELIKADA
KOLLUPITIYA
CINNAMON GARDENS
KIRULAPONA
NAWALA
BAMBALAPITIYA
TIMBIRIGASYAYA
NARAHENPITA
LAKE
KOTTE
WELLAWATTA
HAVELOCK TOWN
KIRILLAPONE
PAGODA
NUGEGODA
MIRIHANA
WELLAWATTA
EDIRIGODA
GANGODAWILA
KALUBOWILA

PULMONARY TUBERCULOSIS
IN
CITY
OF
COLOMBO
1927
HARBOUR
KOTAHENA
ST. PAULS
NEW BAZAAR
PETTAH
FORT
ST. SEBASTIAN
MARADANA
SLAVE ISLAND
KOLLUPITIYA
WELLAWATTA
HAVELOCK TOWN
KIRULAPONE
NUGEGODA
KOTTE
NAWALA
BORELLA
WELIKADA
MATTAKKULIYA
MODERA
MADAMPITIYA
GRANDPASS
KELANI GANGA
WELLAMPITIYA
NEGODA KOLONNAWA
KOLONNAWA
DEMATAGODA
BAMBALAPITIYA
WANAWAHALA
HENDALA
WATTALA
PELIYAGODA
SEDAWATTA
KOTUWILA
KITAMPAHUWA
MAHAWATTA

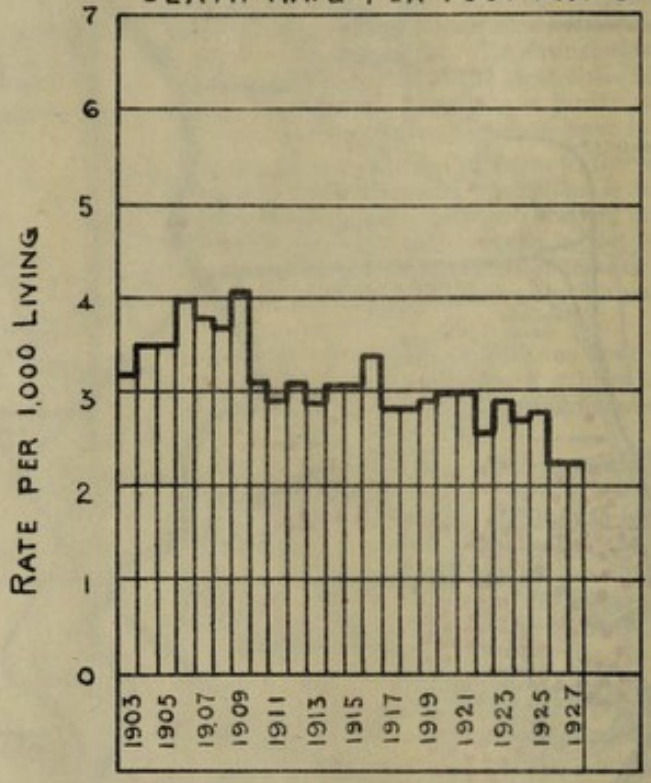
DIAGRAM No VII

(a) Phthisis - 1903 - 1927

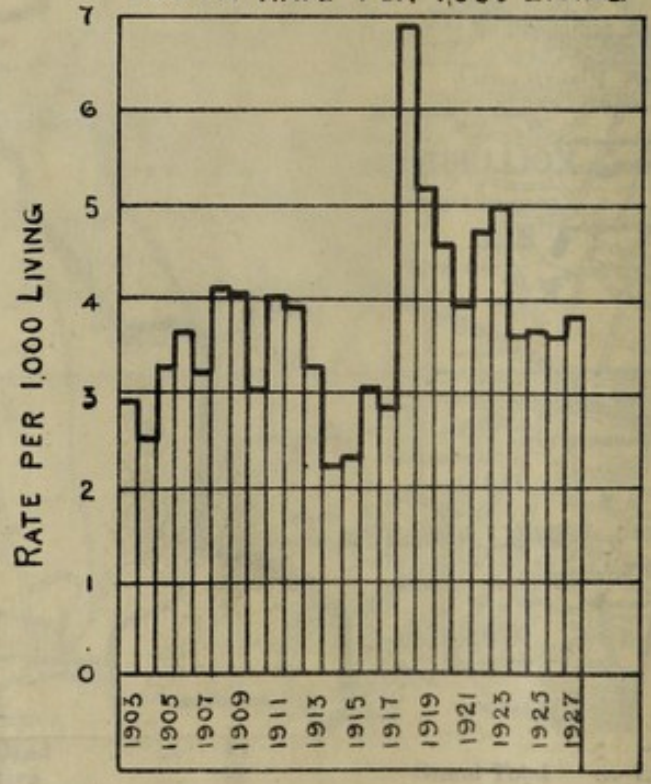
(b) Pneumonia - 1903 - 1927

DIAGRAM Nº VII

(a) PHTHISIS - 1903 - 1927
DEATH RATE PER 1000 LIVING



(b) PNEUMONIA - 1903 - 1927
DEATH RATE PER 1,000 LIVING



Survey Dept. Ceylon.

XVIII.—Influenza.

4,406 cases of influenza were treated at the six Municipal Dispensaries, as against 4,857 in the previous year. There were 296 deaths (28 with pulmonary complications specified and 268 without pulmonary complications specified), as against 307 in 1926.

Judging from the dispensary returns (*vide* statement below) the disease was most prevalent during the months of May, June, and July, which is the south-west monsoon season, and then there was a decline till October, when it again rose, but not to the height it reached in the months of May, June, and July. The disease becomes most prevalent during the two rainy seasons of the south-west and north-east monsoons.

(53) *Influenza Cases reported from Municipal Dispensaries during each Month of the Year 1927.*

Month.	Slave Island.	St. Paul's.	Maradana.	Mutwal.	New Bazaar.	Wellawatta.	Total.
January	28	118	87	6	8	—	247
February	12	34	49	50	—	1	146
March	33	66	41	21	4	5	170
April	53	113	48	11	10	7	242
May	293	146	128	62	37	13	679
June	276	124	100	54	70	23	647
July	243	104	120	52	88	15	622
August	59	51	58	46	64	55	333
September	57	45	58	33	23	6	222
October	115	47	39	43	38	11	293
November	122	66	81	42	63	15	389
December	36	126	78	83	75	18	416
Total	1,327	1,040	887	503	480	169	4,406

XIX.—Pneumonia.

There were 1,003 deaths during 1927, as against 926 in 1926, representing a death-rate of 3·83 per mille. Fourteen per cent. of the total deaths in Colombo were due to this disease, which still heads the list of acute diseases most fatal to mankind. Of the 1,003 deaths, 211 or 21 per cent. were of infants under one year of age.

Statement 55 shows that mortality is greater among males than females, probably on account of their greater exposure to infection and to some extent their addiction to alcoholism.

Pneumonia was most prevalent last year, as Statement 56 shows, during the months of May, June, July, and August and again in December.

Pneumonia not being a notifiable disease, complete data in regard to its incidence in Colombo are not available. With regard to prevention of pneumonia, judging from the heavy toll taken in deaths every year our efforts would appear to have thus far been unavailing. The immediate cause being a specific organism communicable from person to person, isolation of the sick and avoidance of contact with the sick and recently recovered should be carefully practised. This is to a very great extent a personal matter as also the avoidance of spitting, coughing, sneezing, &c., to the danger of the public, and the taking of precautions against exposure to chills, neglecting of colds and bad throats, overwork, and fatigue, &c. Another factor of great importance in the prevention of pneumonia is bad housing and overcrowding which is undoubtedly largely responsible for many evils. Preventive inoculations against pneumonia have not given, as far as I know, conclusive evidence as to its value for general adoption. It must be regarded as still in the experimental stage.

(54) *Pneumonia during 1927, by Race—Deaths and Death-rates per 1,000 Population.*

Race.	No. of Deaths.	Death-rate per 1,000 Population.
All Races	1,003	3·83
Europeans	2	0·66
Burghers	34	2·13
Sinhalese	549	4·47
Tamils	190	3·27
Moors	139	3·27
Malays	23	3·67
Others	66	5·06

(55) *Deaths from Pneumonia during 1927—Distribution by Sex.*

Race.	Males.	Females.
Europeans	1	1
Burghers	19	15
Sinhalese	284	265
Tamils	132	58
Moors	76	63
Malays	10	13
Others	57	9
Total	579	424

(56) *Deaths from Pneumonia during 1927—Monthly Mortality.*

Month.	No. of Deaths.	Month.	No. of Deaths.	Month.	No. of Deaths.
January ...	68	June	134	November ...	67
February ...	66	July	106	December ...	121
March	79	August	80		
April	72	September ...	55	Total ...	1,003
May	95	October	60		

Part II.—Administration.

XX.—EXPENDITURE IN 1927.

Head of Expenditure.	Estimated Expenditure. Rs. c.	Actual Expenditure. Rs. c.	Saving. Rs. c.
Higher Staff ...	52,920 0	48,819 15	4,100 85
Clerical Staff ...	19,200 0	19,200 0	—
Sanitary Branch ...	199,877 0	173,567 85	26,309 15*
Child Welfare ...	52,090 0	45,724 21	6,365 79
Dispensaries ...	83,310 0	67,297 81	16,012 19
Markets	37,076 0	35,632 56	1,443 44
Cemeteries	24,868 0	23,151 92	1,716 8
Bacteriological Laboratory	33,356 0	30,079 76	3,276 24
Laundries	2,500 0	2,132 65	367 35
Total ...	505,197 0	445,605 91	59,591 9

* The saving on the Sanitary Branch estimate was due chiefly to reduced expenditure of Rs. 15,096·21 on Plague Prevention.

XXI.—NEW WORKS.

(*a*) *Laundries.*

Wekanda—(1) Low ground filled up.
(2) Painting, cementwashing, and tarring of buildings done.
(3) Drains repaired.
(4) Partition wall between tanks refaced with cement.
(5) Building of roof over washing tanks commenced.
(6) Leaking roofs attended to.

Blomendahl—(1) Painting, cementwashing, and tarring of buildings done.
(2) Roof over washing tanks provided.
(3) Minor repairs to roof and barbed wire fence.

(*b*) *Cemeteries.*

Kanatta—(1) Fifteen large and useless trees removed.
(2) Inner side of boundary wall whitewashed.
(3) Two large shelves provided in office and store rooms.

Liveramentu—(1) General repairs and colourwashing done of cemetery-keeper's bungalow and cooly lines.
(2) Improvements to bath room at cemetery-keeper's bungalow.
(3) About five acres of jungle cleared.
(4) Two acres of ground laid out for Hindu and Buddhist burials.
(5) Roads and paths improved.
(6) One hundred shade trees planted.
(7) Burial plots levelled and planted with grass.

Madampitiya—(1) Eight flights of masonry steps built.

(*c*) *Markets.*

Edinburgh—(1) New water tap fixed.
(2) Tats fixed.

Kachcheri Road—(1) New roof over betel stalls provided.
(2) Ticket box removed and converted into extra stall.
(3) New wing of twenty new stalls provided to plantain market.
(4) Open space opposite plantain market converted into a market place for casual fruit and vegetable vendors.
(5) Four new lamps provided.

Bambalapitiya Road—(1) Eleven new gas lamps provided.

Kollupitiya—(1) New poultry stall built.

Slave Island—(1) Two new shops added.
(2) Space provided for storing ice boxes for fish arriving after closure of market.

Dean's Road—(1) Open space adjoining meat stall No. 10 was paved and cemented for use as a storing place for empty fish boxes.

XXII.—GENERAL SANITATION.

The details of the work done during the year by the Ward Inspectors are given in Statements 57 and 58.

A considerable increase in the amount of work done, compared with the previous year, is noticeable under several headings. For instance, the number of inspections rose from 91,385 to 110,033; the number of insanitary premises cleaned up by the Public Health Department Cleansing Gang rose from 4,730 to 5,934; the number of wells filled up rose from 11 to 16.

The greater number of inspections made and the increased amount of work done in many respects had the effect of lowering the incidence of the "filth diseases."

(57) *Work done by the Sanitary Staff During the Year 1927.*

Nature of Work.	Fort.	Pettah.	San Sebastian.	St. Paul's.	Kotahena.	Mutwal.	New Bazaar.	Maradana North.	Maradana South.	Dematagoda.	Slave Island.	Kollupitiya.	Cinnamon Gardens.	Bambalapitiya.	Timbirigasyaya.	Wellawatta.	Total.
1. Number of inspections	11,670	5,095	6,460	6,178	7,608	8,126	7,931	8,398	5,989	5,116	6,978	3,764	3,933	5,400	9,107	8,280	110,033
2. Number of premises where sanitary defects were found: (*a*) non-structural	56	96	132	417	258	271	304	357	531	223	254	148	41	80	117	145	3,430
3. Number of premises where sanitary defects were found: (*b*) structural	5	43	30	145	85	120	124	62	129	203	75	46	19	15	25	37	1,163
4. Number of premises where non-structural defects were rectified...	41	55	97	290	216	237	269	264	510	246	159	131	36	54	86	75	2,766
5. Number of premises where minor structural defects were rectified.	3	36	22	58	68	70	79	20	73	115	44	38	15	9	13	15	678
6. Number of buildings, other than dwellings, structurally improved.	—	51	11	47	22	8	—	16	75	19	62	16	—	—	—	22	349
7. Number of insanitary premises scavenged by Public Health Department Cleansing Gang	17	25	11	244	300	1,620	270	936	379	1,851	138	73	6	32	8	24	5,934
8. Number of dwellings disinfected	5	1,602	797	2,314	340	511	233	193	601	358	558	58	27	30	29	121	7,677
9. Number of dwellings limewashed	5	288	984	1,886	753	165	978	722	745	452	802	398	39	126	42	104	8,389
10. Number of wells filled up	—	—	1	—	7	—	—	3	—	1	—	—	1	—	2	1	16
11. Number of cesspits filled up	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	4
12. Number of notices served under section 1, sub-section (1), of Ordinance No. 15 of 1862. (Filthy premises) ...	—	30	53	107	106	71	123	145	145	76	116	30	11	39	46	40	1,138
13. Number of notices served under section 190 of Ordinance No. 6 of 1910. (Privy accommodation)	—	—	1	—	8	26	—	2	1	1	—	—	2	—	—	—	41
14. Number of notices served under section 180 of Ordinance No. 6 of 1910. (Filling up stagnant pools, &c.)	—	—	—	—	—	1	—	1	—	3	—	2	—	1	—	—	8
15 Number of notices served under section 178 of Ordinance No. 6 of 1910 (Cleansing and limewashing)	4	51	83	211	60	25	44	90	97	33	53	44	4	24	15	20	858
16. Number of notices served under by-law 8 (1), chapter 22, Plague Regulations. (Improvements to buildings unfit for human habitation)	—	1	—	1	—	—	—	1	—	—	—	1	—	—	—	—	4
17. Number of notices served under section 38, Part I., of Plague Regulations (Filling up wells)	—	—	—	—	16	—	—	1	—	1	—	—	—	—	—	—	18
18. Number of milk samples taken under rule 5, chapter 14, Municipal by-laws	72	67	73	73	72	72	72	72	70	72	76	72	74	72	72	73	1,154
19. Number of prosecutions	16	121	291	279	179	360	224	189	395	146	100	77	83	31	29	93	2,613
20. Number of convictions	16	112	284	268	177	313	210	175	369	138	92	77	80	28	26	81	2,446
21. Number of cases acquitted, withdrawn, or otherwise dealt with...	—	12	2	11	5	79	12	4	31	6	8	5	3	6	7	10	201
22. Number of cases pending at end of year	—	1	8	16	2	1	4	7	10	—	2	1	2	—	10	—	64
	Rs.	Rs. c.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. c.	Rs.	Rs.
23. Amount of fines	185	1,144'50	2,246	2,488	1,588	2,659	1,571	1,545	4,675	1,323	1,076	889	890	186	174'50	644	23,284

(58) *Statement of Prosecutions and Convictions during the Year 1927.*

Ordinance or By-law.	Offence.	No. of Prosecutions.	*No. of Convictions.
Section 1, sub-section (1), of Ordinance No. 15 of 1862 :	Filthy premises	957	877
Section 1, sub-section (1), of Ordinance No. 15 of 1862 :	Filthy cattle shed	3	2
Section 1, sub-section (1), of Ordinance No. 15 of 1862 :	Filthy dairy	26	31
Section 1, sub-section (1), of Ordinance No. 15 of 1862 :	Filthy laundry	3	2
Section 1, sub-section (4), of Ordinance No. 15 of 1862 :	Nuisance by cattle, swine, &c.	95	86
Section 1, sub-section (9), of Ordinance No. 15 of 1862 :	Selling unwholesome food	32	27
Section 53 of Ordinance No. 1 of 1896 :	Unregistered laundry	31	29
Regulation 41 made under Section 4 of Ordinance No. 3 of 1897 :	Obstructing Sanitary Officer in the discharge of his duties	1	1
Regulation 57 made under Section 4 of Ordinance No. 3 of 1897 :	Removal of person suffering from infectious disease	3	3
Regulation 62 made under Section 4 of Ordinance No. 3 of 1897 :	Moving about in public when suffering from infectious disease	2	1
Regulation 89 made under Section 4 of Ordinance No. 3 of 1897 :	Storing rice in unauthorized place	84	86
Regulation 63 made under Section 4 of Ordinance No. 3 of 1897 :	Failure to close well	3	3
By-law made under Sections 109 (1) and 110 (5) of Ordinance No. 6 of 1910 :	Spitting in public place	14	11
Section 178 of Ordinance No. 6 of 1910 :	Failure to limewash	78	75
Section 180 of Ordinance No. 6 of 1910 :	Failure to fill swampy land	1	1
Section 184 of Ordinance No. 6 of 1910 :	Committing nuisance	35	31
Section 190 of Ordinance No. 6 of 1910 :	Failure to provide privy accommodation	16	10
Section 187 of Ordinance No. 6 of 1910 :	Smoke and fire nuisance	1	1
Section 205 of Ordinance No. 6 of 1910 :	Failure to report infectious disease	22	20
Section 212 of Ordinance No. 6 of 1910 :	Unlicensed offensive trades	3	4
Section 6 (2) of Ordinance No. 19 of 1915 :	Erection of unauthorized partitions in dwellings	1	1
Rule 29, chapter VIII., Municipal by-laws :	Digging pits and wells without permission	6	6
Rule 4, chapter IX., Municipal by-laws :	Filthy bathing place	7	5
Rule 1, chapter XI., Municipal by-laws :	Unlicensed eating-house	29	28
Rule 1, chapter XI., Municipal by-laws :	Unlicensed bakery	1	1
Rule 7, chapter XI., Municipal by-laws :	Filthy eating-house	69	66
Rule 7, chapter XI., Municipal by-laws :	Filthy bakery	24	22
Rule 8, chapter XI., Municipal by-laws :	Unclean workmen in bakery	17	19
Rule 3, chapter XIII., Municipal by-laws :	Disorderly conduct in public market	85	81
Rule 9, chapter XIII., Municipal by-laws :	Selling fish or meat without licence	8	7
Rule 10, chapter XIII., Municipal by-laws :	Filthy private stall	1	1
Rule 28, chapter XIII., Municipal by-laws :	Throwing rubbish in market	18	20
Rule 29, chapter XIII., Municipal by-laws :	Filthy market stall	58	58
Rule 31, chapter XIII., Municipal by-laws :	Closing stall without permission	3	3
Rule 34, chapter XIII., Municipal by-laws :	Obstruction of passages in public markets	242	241
Rule 39, chapter XIII., Municipal by-laws :	Keeping cattle in excess of number allowed	29	29
Rule 14, chapter XIII., Municipal by-laws :	Sale of unauthorized articles in stall	2	1
Rule 2A, chapter XIV., Municipal by-laws :	Exposing food to dust and flies	362	343
Rule 3, chapter XIV., Municipal by-laws :	Sale of adulterated milk	113	101
Rule 5, chapter XIV., Municipal by-laws :	Refusing Sanitary Inspector a sample of milk	2	2
Rule 7, chapter XIV., Municipal by-laws :	Unregistered milk vendor	126	110
	Total	2,613	2,446

* Includes convictions obtained during 1927 on prosecutions instituted during the previous year.

XXIII.—Markets.

There are eleven public markets in the city; of these, the ones at Borella, Slave Island, Kollupitiya, and Kotahena are modern up-to-date structures which any city might well be proud of. The markets at Bambalapitiya, Dean's road, and Gintupitiya street, though not modern, are not very bad, while the ones at Gasworks street (known as Edinburgh market), Kachcheri road, St. John's road, and Grandpass road are old-fashioned, ill-designed, and badly crowded, with the result that it is most difficult to keep them clean or to maintain proper order in them.

The markets at Gasworks street, St. John's road, and Kachcheri road, which deal with meat, fish, and vegetables respectively, together form the central market of Colombo. These three markets located in three different sites, but close to each other, deal with an enormous volume of trade. The principal 'bus stand is located close to the Kachcheri road market, and vegetables and fruit from the remotest places in the country pour in daily, but the present accommodation of this market is wholly inadequate to deal with all the stuff that comes in; not only are the stalls overloaded, but the passages also are frequently blocked with goods and it is with the greatest difficulty and discomfort that vendors and purchasers transact business. Under such conditions it is well nigh impossible to keep the market clean. Edinburgh market, where meat and fruit and up-country vegetables are housed, is no better. The meat stalls are constructed of whitewashed planks, and are exposed to the dust and dirt from the two streets upon which they open. The accommodation is insufficient and the sanitary arrangements very poor. St. John's road fish

market is really the worst. The whole place is so overcrowded that it is hardly possible to move about, and for want of space vendors often sell fish in the central passage. It is most difficult to keep this market even fairly clean.

It must be remembered that these three markets supply practically all the other markets in the town, in addition to the big populations in the adjoining wards of St. Paul's, Pettah, San Sebastian, and part of New Bazaar, and ships which call at Colombo, the Military, Navy, and hotels. The conditions in these markets are a reproach to a city of the size and importance of Colombo. Visitors to the Island, representatives of shipping firms, &c., visit our central market and carry away with them impressions which are by no means flattering to the city. Colombo is in this respect far behind Calcutta and Bombay, which possess very fine central markets.

The question of building a modern central market has been engaging the attention of the Council for some time, but the difficulty of securing a suitable site in the vicinity of the present market, which is essential for the success of the project, has held this matter up. It was hoped that on the removal of the Government Factory to Kolonnawa that site would have been available for the construction of the central market, but as Government does not see its way to give up that site it is hoped that with the proceeds of the sale of the old Town Hall and St. John's road fish market sites sufficient money would be available for the purchase of the site known as Bogahawatta situated to the north of the Kachcheri road market. This site is, in my opinion, excellent for a central market, situated as it is at the very hub of the Pettah trade area. It would, of course, be a great mistake to build the central market too far from the sites of the present markets as not only have people been accustomed for generations to resort to this quarter for their purchases but in its vicinity are located shops which deal with various other commodities. A first-class central market would bring in a splendid revenue to Council as trade has increased phenomenally since the opening of 'bus traffic. Not only do the 'buses bring in produce from the villages, but on the return journey transport large quantities of produce from Colombo. A splendid opportunity like this for increasing Municipal revenue should be seized and the money necessary to execute such a project should be raised, if necessary, by a loan. Aside from the question of revenue Colombo's food supplies should be housed under better sanitary conditions.

The following improvements and extensions were effected during 1927 :—

Dean's Road Market.—The open space adjoining meat stall No. 10 was paved and cemented and is now used for storing empty fish boxes which used to be left about in the fish market or outside the market.

Gasworks Street, Edinburgh Market.—(1) An extra tap for the up-country vegetables section ; (2) Tats on the west side to shield the meat stalls from the afternoon sun.

Kachcheri Road Market.—(1) New roof over betel stall. (2) The old ticket box was removed and the space converted into an extra stall. (3) Additional wing to plantain market providing 20 extra stalls. (4) Four new lamps.

Slave Island Market.—(1) Two new shops. (2) An enclosed space for keeping ice-boxes for fish arriving after market hours.

Kollupitiya Market.—A new poultry stall was erected in the yard at the back.

Bambalapitiya Market.—11 new gas lamps.

The following have been sanctioned for 1928 :—

(1) Acquisition of sites for markets at Mutwal and Kolonnawa.

(2) Three poultry stalls for Borella market.

XXIV.—Dairies and Milk Supply.

During the year under review four dairies were discontinued and seven new dairies were registered, making a total of 59, as against 56 at the end of 1926.

The total number of milch cattle for which these 59 dairies were licensed was 1,786, as against 1,752 in the previous year, but with a few exceptions dairymen were nearly always found keeping a larger number of animals than their licences permitted, with the result that either the sheds were overcrowded or, if the animals were tethered outside, the grounds were rendered filthy and slushy.

With a view to stopping this practice by-law 47, Chapter XIII., was amended providing for 4 feet of lateral space for each milch cow and 5 feet for each cow-buffalo. Dairymen were informed of this amendment and warned to reduce, where necessary, the number of animals so as to comply with the amended by-law as from 1928. The by-law has been put into operation as from the beginning of the current year.

It is not possible to give separate figures for cows and buffaloes as dairymen keep frequently changing their animals. The majority of dairies keep both cows and buffaloes and not a few keep practically only buffaloes.

3,698 inspections were made, as against 3,142 in 1926, and 1,154 samples of milk were taken during the year. Thirty dairies, as against 33 in 1926, were involved in prosecutions, and 211 convictions, as against 280 in the previous year, were obtained as shown in Statement 59.

(59) *Dairies—Number of Convictions, 1927.*

Offence.	No. of Convictions in 1926.	No. of Convictions in 1927.
Adulteration of milk	53	40
Excess cattle	29	29
Unclean dairy	48	31
Storing milk in unauthorized place ...	2	—
Selling milk without card	147	110
Unlicensed dairy	1	1
Total ...	280	211

This is a distinct improvement over the previous year. The Colombo Ladies' League in their annual report testified to this in the following terms :—

> The general improvement of dairies in the last few years has been remarkable, and it is a matter for consideration whether the time has not come to raise our standard of marking.

Quality of the Milk Supply.

No standard has as yet been made law, but the standard recommended by the City Analyst, namely—

	Cow.	Buffalo.
Total solids	12·0	16·0
Fat	3·5	7·0
Solids not Fat	8·5	9·0

on the result of many thousands of samples examined by him over many years, is still in use and has been recommended to Government as a very fair and equitable standard for adoption as the legal standard, but I regret to say it has not yet been made law.

With regard to the quality of fresh milk supplied in Colombo there is much room for improvement. 1,154 samples of milk were taken from the following sources :—

Town dairies	932
Unregistered vendors	124
Dairies outside Colombo	98
Total ...	1,154

These were forwarded as usual to the City Analyst who reported as follows :—

> "During the year 63·6 per cent. of milk samples were considered up to standard ; 26·1 per cent. had the equivalent of 1—10 per cent. added water, 6·4 per cent. of the samples had the equivalent of 11—30 per cent. of added water, and 3·9 per cent. had over 30 per cent. of added water. Adding the figures for 11—30 per cent. and over 30 per cent. added water, 10 per cent. of the total milks are found to be grossly adulterated. The maximum adulteration during the year was 67 per cent. added water.
>
> "The figures obtained are in remarkable agreement with those of 1926. There has been no improvement in 1927. There is great room for improvement in the milk supply of Colombo, as the figures only represent a fraction of milk supplied to the citizens of Colombo, and only a fraction of the adulteration."

For further particulars, *vide* City Analyst's Report, Annexure B.

(60) *Milk Sampling during the Year 1927.*

Statement showing the number of samples adulterated with water up to 10 per cent. and above 10 per cent.

Source of Sample.	Number of Samples taken.	10 Per Cent. and under. Number adulterated.	10 Per Cent. and under. Per Cent. adulterated.	Above 10 Per Cent. Number adulterated.	Above 10 Per Cent. Per Cent. adulterated.	All Adulterations. Number adulterated.	All Adulterations. Per Cent. adulterated.
Town dairies ...	932	249	26·7	52	5·6	301	32·3
Unregistered vendors ...	124	28	22·6	59	47·6	87	70·2
Dairies outside Colombo ...	98	23	23·5	8	8·2	31	31·6
Total ...	1,154	300	26·0	119	10·3	419	36·3

Statement 60 shows that in respect of adulteration below 10 per cent. of added water the registered dairies had a higher percentage, namely, 26·7 per cent., as against 22·6 per cent. in the case of unregistered vendors. This is due to the fact that dairymen are aware that prosecutions are not entered by this Department for degrees of adulteration below 10 per cent. of added water and they, therefore, yield to the temptation of diluting the milk, but at the same time carefully keep within the law by adding only a small quantity of water. Unregistered vendors, on the other hand, do not believe in making small profits ; their business is hedged round with dangers and difficulties and when detected they have to disgorge a large portion of their ill-gotten gains, and so they try to make as large profits as they can by liberally diluting the milk which they supply, so that, in respect of adulterations above 10 per cent. of added water, the percentage of samples adulterated is 47·6 in the case of the unregistered vendors, as against 5·6 in the case of the registered dairymen. Taking all degrees of adulteration into consideration out of the 932 samples taken from registered dairymen 301 or 32·3 per cent. were found adulterated, and out of the 124 samples taken from unlicensed vendors, 87 or 70·2 per cent. were found adulterated. This shows clearly the poor quality of the milk supplied by unlicensed vendors and the danger of purchasing one's milk supply from such people ; yet there are many people in Colombo who do not take the trouble to find out whether their "milkman" is a registered dairyman or not.

126 prosecutions were entered against unlicensed milk vendors during 1927, as against 157 in 1926, which is a slight improvement.

I am glad to be able to report that legislation prohibiting the importation of skimmed milk into the Island has been passed under the Customs Ordinance, No. 17 of 1869.

To the table of Prohibitions and Restrictions Inwards has been added the following :—

"Milk which contains less than 12·0 per cent. of milk solids (including less than 3·5 per cent. of milk fat).

"Milk whether condensed or dried which is not labelled with instructions as to dilution. Milk, whether condensed or dried, which, when diluted in accordance with the instructions on its label or on its container produces a fluid which contains less than 12·4 per cent. of milk solids (including less than 3·6 per cent. of milk fat).

"Provided that dried milk, which comes under the above prohibitions, may be imported for purposes of manufacture under the licence of the Principal Collector of Customs subject to such conditions as he may impose."

The Dairy Sub-committe of the Colombo Ladies' League reports that 37 out of the 55 licensed dairies in Colombo entered for the annual competition organized by the Ladies' League, as against 34 in 1926 :—

The chief awards were as follows :—

Challenge Cup ... Mrs. R. Koch, Glenrose, Havelock road.

A Division.

Silver Medals ... Mr. C. B. Fernando, Maycliffe, Bloemendahl road.
Mr. T. Don Aron Appuhamy, Kirillapone road.

Certificates were won by five dairies.

B Division.

Gold Medal ... Mr. Clarence de Vos, Clarendon Dairy, Wellawatta.

Certificates were won by eight dairies.

XXV.—Bakeries.

One bakery was discontinued and 3 new bakeries were registered during the year, bringing the total up to 57, which is an increase of 2 over 1926.

Of the 57 bakeries, 26, as against 28 in the previous year, were involved in prosecutions, and 41 convictions were obtained for the following offences, as against 45 in the previous year :—

Offence.	No. of Convictions.
Unclean bakery	22
Unclean workmen	19
Total ...	41

Number of bakeries involved : 26.

Number of bakeries with only 1 conviction	17
Number of bakeries with 2 convictions	5
Number of bakeries with 3 convictions	3
Number of bakeries with 5 convictions	1
	26

Though there was some improvement in the condition of the bakeries there is still room for more. In the matter of buildings the newer bakeries are very much better than the older ones, but, as the convictions show, the difficulity is to get proprietors to keep the tables, utensils, and the clothing and persons of the workmen always spotlessly clean.

During the year no less than 2,594 visits were paid by the Sanitary Inspectors, in addition to frequent visits by the Medical staff, and the opinion that the writer has formed after many years of experience of these bakeries is that the fault lies with the hired workmen who are frequently changed and whose ideas of cleanliness are very primitive. The proprietors, as a rule, are willing and anxious to keep their establishments up to the standard required, not only to avoid the penalties which they suffer for breaches of the by-laws but also to secure the prizes and the advertisement which they gain by securing a sufficient number of good marks in the annual Colombo Ladies' League Bakery Competition ; but they are invariably let down by their workmen who take no personal interest or pride in the establishment.

The healthy rivalry created among the bakeries by these annual competitions organized by the Ladies' League has led to good results, not only in raising the standard of cleanliness but in the production of better bread. Bakers have realized that there is no better form of advertisement than to win the approval of the ladies and a prize in the annual competition. The fact that any convictions disqualify them from winning prizes tends to make them strive very hard to avoid getting into trouble with the Public Health Department.

From the Colombo Ladies' League report for 1927, I gather that 47 bakeries competed and 22 won prizes and certificates.

The chief awards were as follows :—

Challenge Cup	...	Messrs. Perera & Son, 237, Stewart place, Kollupitiya.
Second Prize, Bronze Medal.		Mr. P. N. Kapadia, 24, First Cross street, Pettah.

A Division.

Gold Medal	...	W. D. John Singho, 63, Bloemendahl road.
Second Prize, Bronze Medal.		W. L. Babun Appuhamy, 11, Kollupitiya.

B Division.

Silver Medal	...	Mr. Andrew J. de Mel, 282, Second Division, Maradana.
Second Prize, Bronze Medal.		Mr. K. M. de Silva, 30, Dias place.

Certificates were won by sixteen bakeries.

Best Bread Competition.

A Division.

Silver Medal	...	Messrs. Perera & Son, 237, Stewart place, Kollupitiya.

B Division.

Silver Medal	...	Mr. K. M. de Silva, 30, Dias place.

XXVI.—Eating-houses and Tea Boutiques.

Ninety-two eating-houses were discontinued and 167 new eating-houses were licensed during 1927, leaving a total of 594 at the end of the year, as against 519 at the end of the previous year. It is not possible to state the number of tea boutiques as they are neither licensed nor registered, but their number must be well over a thousand.

362 prosecutions were entered during the year for exposing food to dust and flies and 343 convictions obtained ; 69 prosecutions entered and 66 convictions obtained for keeping eating-houses filthy ; and 29 prosecutions entered and 28 convictions obtained for running unlicensed eating-houses.

As pointed out in a previous report (1923) a very large number of so-called tea boutiques are in reality eating-houses, but they cannot be brought under control as they do not come within the definition of the term "eating-house." The present by-laws dealing with eating-houses confer very little powers on the Health Authorities for the proper control of these establishments which play such an important rôle in the daily life of the working classes.

A new set of by-laws was drafted last year providing for better control and bringing within the definition of "eating-house" all premises where any kind of food is prepared or supplied for consumption by the public either on the premises or elsewhere, but these by-laws have not been sanctioned by Government yet. If, and when, they are passed effective control could be exercised over these establishments.

XXVII.—Aerated Water Factories.

There were 12 aerated water factories on the register at the end of the year, the number remaining the same as in 1926.

These factories were regularly inspected once a week.

XXVIII.—Laundries.

(*a*) *Public Laundries.*

There are two Municipal laundries; one at Wekanda and one at Bloemendahl road.

At the Wekanda laundry there is accommodation for 30 dhobies and at Bloemendahl road there is accommodation for 32 dhobies.

Both these laundries have proved a great success, and several such are still needed in other parts of the town. A new laundry for Polwatta was sanctioned and is now under construction.

For lack of funds the erection of a laundry for the large number of Tamil dhobies washing in Grandpass, Kotahena, and Mutwal has had to be postponed again. These dhobies are very poor men who wash for the working classes and their quarters are very bad, and any attempt to enforce our laundry regulations would drive them out of the business at once with great hardship to them and their customers. A Municipal laundry for these men is very urgently needed, and it is hoped that funds will be provided in the 1929 Budget.

The following improvements were effected during 1927 :—

Wekanda Laundry—

(1) Part of the grounds which used to get very slushy was covered over with gravel.
(2) Painting, cementwashing, tarring, &c., of the buildings.
(3) Repairs to drains.
(4) The partition wall between tanks was cement faced anew.
(5) Work of roofing tanks was commenced.

Bloemendahl Laundry—

(1) Painting, cementwashing, tarring, &c., of buildings.
(2) Roof over washing tanks provided.

(*b*) *Private Laundries.*

Ten laundries were discontinued and 27 new ones were registered during the year, leaving a total of 301 registered laundries at the end of the year, as against 284 at the end of 1926.

There is nothing new to add in regard to these private laundries. They should be gradually replaced by up-to-date Municipal laundries as funds permit.

XXIX.—Food Inspection.

Statement 61 shows the nature and quantity of food condemned and destroyed, and Statement 62 shows the number of inspections made in respect of establishments dealing with foodstuffs.

During the year under review the work of food inspection was performed by the Ward Inspectors in addition to their own proper duties while on their ordinary rounds. Food inspection, however, requires surprise visits at all hours of the day, and, sometimes in the early hours of the night, and this the Ward Inspectors obviously cannot do. I am, however, pleased to be able to say that the appointment of one Food Inspector has been sanctioned by Council for 1928, and I am confident that at the end of the year it would be amply demonstrated what scope there is for a special staff. The absence though of a Food and Drugs Act greatly handicaps and limits the scope of work.

(61) *Foodstuffs condemned during the Year 1927.*

(*a*) At the Customs.

Dry fish	2 cwt. 2 qr.
Potatoes	2 qr. 14 lb.

(*b*) At the Chalmers Granaries.

Rice	564 bushels, 20 measures.

(*c*) In the Municipal Markets.

Meat	2 cwt. 3 qr. 9¾ lb.
Fresh fish	1 qr. 16¼ lb.
Dry fish	2 qr. 6 lb.
Fruits and vegetables	1 qr. 12 lb.

(*d*) In the rest of the Town.

Condensed milk	67 tins.
Fresh fish	2 lb.
Dry fish	24 lb.
Meat	1 cwt. 1 qr. 19 lb.
Gram	2 cwt.
Flour	8 cwt. 3 qr. 3 lb.
Potatoes	9 tons 6 cwt. 2 qr. 10 lb.
Yams	2 qr. 4 lb.
Garlic	2 qr. 24 lb.
Fruits	5½ lb.
Dhal	20 bushels.
Onions	28 tons 4 cwt.
Biscuits	2 cases.
Sardines	11,500 tins.
Sweetmeats	3½ lb.

(62) *Food Trades Inspections during the Year 1927—Number of Inspections made.*

Ward.	Bakeries.	Dairies.	Eating-houses.	Public Markets.
Fort	55	—*	761	—†
Pettah	228	—*	733	54
San Sebastian ...	95	—*	651	584
St. Paul's	281	623	592	83
Kotahena	236	223	303	121
Mutwal	217	215	163	197
New Bazaar ...	192	374	222	—†
Maradana North ...	140	302	536	—†
Maradana South ...	142	51	475	164
Dematagoda ...	163	108	541	—†
Slave Island ...	161	105	402	46
Kollupitiya ...	190	292	241	187
Cinnamon Gardens ...	57	346	251	258
Bambalapitiya ...	206	284	359	184
Timbirigasyaya ...	21	428	412	—†
Wellawatta ...	210	347	575	—†
Total ...	2,594	3,698	7,217	1,878

* No dairies in these Wards. † No public markets in these Wards.

XXX.—Public and Private Lavatories.

(*a*) *Public Lavatories.*

During the year three new public lavatories at Forbes lane, Peer Saibo's lane, and Gasworks street were completed and opened to the public. The two former are situated in congested tenement areas, and the latter has been erected in the middle of the principal 'bus stand of the city, as a convenience to the very large number of passengers arriving and departing by 'bus. With the erection of the above the total number of public lavatories in the city was brought up to 64, containing 455 seats and 219 showers for males and 212 seats and 101 showers for females.

These sanitary conveniences have been provided with two objects in view: (*a*) as a convenience, for the travelling public, absolutely necessary in any civilized community and (*b*) as a means of preventing or checking the spread of those communicable diseases due to infection by the alvine discharges.

Looked at from both aspects they have been a boon and a blessing, and the general sanitary condition of the town has vastly improved in consequence.

In the poor tenement areas, still unsewered, the privy accommodation provided is, in many cases, inadequate for the needs of the tenants, and the use of pail-latrines by large numbers of people is in the highest degree objectionable and disgusting.

The erection of these well constructed properly drained lavatories has led, wherever they have been provided, to a great improvement in the "atmosphere and flavour" of tenement compounds and drains which were previously noisome with the smell of excrement. As a factor of great sanitary value the importance of further extending these sanitary conveniences cannot be gainsaid, and it is hoped that year by year funds will be available for extending the service until the whole town is adequately served.

Two lavatories which should be erected at the earliest opportunity are one at Galle Face and the other in the Fort.

The beach and the maidan (near the culverts) are badly abused at night time and, though a sweeper goes round every morning and cleans up, it is a reproach to the city that its most popular promenade should also be a rendezvous for the commission of common nuisance by motor car drivers, rickshaw wallahs, loafers, &c., hanging about near the hotel, flats, &c., at the southern end of the promenade. The abuse of the shore and maidan is not merely an offence to the senses of sight and smell but a distinct danger to the many little children who are sent by unsuspecting parents to play on the sands. The absence of a sewer in the vicinity to connect to has been the reason for so long delaying the erection of a lavatory on Galle Face. A lavatory here should not be regarded as a luxury but as an urgent necessity, and funds should be found anyhow for the provision of a sewer at the earliest moment. In the writer's opinion a lavatory on Galle Face should be of a different type from the ones erected in other parts of the town. It should serve not only the masses but also the classes, and should therefore have two sections; one entirely free and the other with better appointments and a wash and brush up place where a small fee might be charged as in the London public lavatories. People who go to Galle Face of an evening have to drive back home in case of a call of nature and little children respond to the call on the spot. All this spoils the amenities of the place and calls for early redress.

Another public lavatory of the type suggested by me for Galle Face is urgently needed in the Fort. The many hundreds of people shopping in the Fort have nowhere to go to for a call of nature or for a wash and brush up. They are driven to one of the hotels, tea rooms, or the Y.M.C.A., where the conveniences provided are meant for the residents and customers of these institutions and not for the general public.

There is a public lavatory adjoining the Y.M.C.A. meant for the cooly class, which should be abolished at the earliest opportunity. It is a source of nuisance to the Y.M.C.A., whose chapel and quiet room are unfortunately situated on that side of the building. The difficulty of securing another site in the valuable Fort area has been advanced as a reason for retaining this lavatory, but I should not think it would be at all impossible to construct an underground lavatory. Of course the question of ventilation will have to be solved by the provision of exhaust fans, but with cheaper electric power, likely to be available soon, the cost should not deter the Council from providing an up-to-date lavatory which should be regarded not as a luxury but as an essential contribution to the amenities of life.

It is a matter for regret that there are still in existence 143 privately owned bathing places, where the source of the water is from shallow wells. An attempt made a few years back to close down these shallow wells, particularly those in close proximity to the public lavatories, met with no success, as a large number of people still labour under the delusion that pipe-borne water is not so "healthy" as well water, though the latter may be grossly polluted. This belief is due to the fact that water conveyed in metal pipes under heated metalled streets is naturally of a higher temperature than the water of a well, and, in a warm climate like that of Colombo, a bath in lukewarm pipe water does not produce that exhilarating, invigorating feeling that a really cold water bath does; hence the opposition to the closure of these wells.

While on the subject of baths I should like to direct attention to the need for a seawater swimming bath for Colombo. It is, I believe, proposed to have a Marine Aquarium somewhere on the sea front, and if such a thing materializes the plant employed for pumping seawater into the Aquarium might be used for the bath. Colombo is sadly lacking in amenities. Any town in the West with a sea front like that of Colombo would have made of it a thing of beauty and pleasure and profit to the citizens. A swimming bath should not be regarded as a luxury only for the rich, but as a means of teaching the youth of the country a most useful accomplishment and of taking one of the finest and most pleasurable forms of healthful exercise. Whether the marine aquarium materializes or not Council should seriously consider the question of providing Colombo

with a first class seawater swimming bath with two sections; one free and one where a reasonable fee might be charged. Unfortunately money is the ruling force in Municipal administration, but, even from a financial point of view it would, I am positive, be sufficiently remunerative for Council to consider the question of raising a loan to construct a first class swimming bath; an undertaking of this nature ought not to be judged as an affair of profit and loss on strictly business lines but as something that would contribute materially to the better enjoyment of life and health. If Council cannot see its way at present to provide an up-to-date swimming bath it might, as a temporary measure, have a suitable spot on the sea front made safe for bathing by enclosing a small area with concrete piles and chains, &c., as is done, I am told, in certain parts of Australia. The initial expense of providing such a place should not be high and the cost of maintenance would be very small, but the amount of pleasure and healthy open air exercise that it would provide for a great number of people would be incalculable.

(b) Private Lavatories.

During the year 1,808 new water closets were installed:—467 European style and 1,341 Asiatic style.

There are still 100 cesspits in the town; 77 in San Sebastian and 23 in St. Paul's Ward, and 7,102 dry-earth closets, the majority being in unsewered districts. In the sewered districts much progress has been made, as will be seen from the report of the Drainage Engineer in the matter of converting dry-earth closets into water-closets and of draining private premises. Council's aided drainage scheme, by which those unable to find the necessary funds for the cost of drainage are helped by Council on certain easy terms, has been responsible for the great advance made.

Out of the total number of 21,800 separately assessed premises in the city, 5,218 had been drained at the end of 1927. There are still many areas without any sewers at all, either soil or storm-water, and houses and lands in these districts cannot consequently be properly drained and nuisances arising from odoriferous pail-latrines and collections of stagnant water must remain unremedied.

The problem of finding the money for sewering the whole town is a big one, but Council will have to face it soon if the sanitary condition of the town is to improve at a faster pace.

The building of a large number of unbuilt side drains and rainwater channels, which receive foul drainage, has also materially contributed towards the improvement of the sanitary condition of the localities through which they run.

For details, &c., *vide* Municipal Engineer's Report.

XXXI.—Mosquito Prevention.

Statement 63 shows the work done during the year by the preventive staff. Under nearly every head an increased amount of work over previous years is shown.

To the many favourable breeding places that abound in every premises the wily mosquito has added another, viz., old motor car tyres carelessly thrown outside garages. These are found in nearly every bungalow compound and our staff have found them nearly always containing water with large numbers of culicine larvæ. Householders should, therefore, take care to see that useless tyres are buried or disposed of in some other way.

Early in the year there was a sudden influx of *Anopheles sinensis*, and on investigation they were found to be breeding in several of the swampy areas in the town. Their breeding places were effectively dealt with.

The increasing number of complaints from householders every year shows that beyond affording temporary relief the small preventive staff employed by the Public Health Department cannot deal effectively with the mosquito problem.

The mosquito not only causes annoyance, irritation, and loss of sleep, in themselves injurious to the nervous system, but they constitute a grave menace to health by causing malaria. It should be remembered that Colombo is not entirely free from malaria. The records of this Department show that *Anopheles listoni* have been found breeding in Colombo, and several authentic cases of malaria, contracted in Colombo by persons who have never before been in any recognized malarial district, have been reported. In the quarries situated just outside the southern limits of the town more than one epidemic of malaria has been reported and many residents of the southern suburbs of Colombo have fallen victims to it. It, therefore, behoves the Municipality to adopt vigorous measures to combat this menace. When one remembers the large number of potential breeding places found so plentifully in Colombo, it will be evident that it is out of the question for the small Municipal staff to exercise any systematic supervision over all the breeding grounds found in the town and to deal with the problem radically. If Colombo is it to be rid of its mosquitoes entirely through official agency, it would mean employing a very much larger staff involving considerably greater expenditure.

The work of the mosquito staff is carried on silently with unabated vigour throughout the year, but their activities are necessarily restricted to the important residential districts. The other parts of the town too breed mosquitoes, but they cannot be included even in the general tours of inspection conducted by the staff when not attending to specific complaints from householders. A small proportion of the intelligent educated members of the population take some interest in carrying out the instructions issued by the Department as regards regular inspection of their compounds, &c., but the vast majority of people put up with the mosquito nuisance with apathetic serenity. They do not even bother to address a complaint to this Department. As has been often pointed out a tremendous amount of work could be done and much assistance rendered to this Department by the people themselves, but alas! many of them are still lacking in a proper appreciation of the laws of sanitation and hygiene and with the resignation and fatalistic pessimism of the East would rather continue to suffer in silence than do their simple duty. In these circumstances the only alternative is the introduction of legislation as has been done in Queensland, the Strait Settlements, Havana,

and other places. In Singapore, I understand, householders are given twelve hours notice, at the expiration of which period the officials concerned have full powers to enter any premises and take action, if necessary, under the Mosquito Destruction Ordinance. The absence of such an Ordinance in Colombo renders the co-operation of the intelligent few null and void owing to the indifference and neglect of the many. When householders find that after twelve hours notice they are liable to be prosecuted for having breeding places in their premises they will soon realize the necessity of inspecting likely breeding places once a week and abolishing any found breeding mosquitoes.

An Ordinance of this nature is still regarded by many in authority as likely to inflict too much hardship on the people. If it can be successfully operated elsewhere there is no sound reason why it should not be tried here, and surely a person who is reponsible for a nuisance which causes annoyance and serious injury to health and even death by breeding dangerous pests ought to be liable to punishment in the same way as, for instance, a person who keeps a goat so as to be a nuisance or injurious to the health of any person is liable under Nuisances Ordinance No. 15 of 1862.

As a result of certain investigations carried out in East Africa some three years back the tops of coconut palms were stated to be suitable places for the breeding of mosquitoes and were therefore regarded as dangerous in proximity to human dwellings. Fortunately for Colombo the work of Lester in Dar-Es-Saalam has proved that the fear was groundless. Any attempt to eradicate the coconut palm in Colombo is destined to fail owing to the value placed upon it by the people of the country. In Colombo the coconut tree as a breeding place would be, I should think, the last resort for a house-hunting mosquito.

Lester after a series of very careful experiments came to the following conclusion:—

> "At no time in our investigations, in all conditions of weather, location, or altitude have mosquito larvæ been found in the axils or hollows of coconut palm leaves. The natural conclusion arrived at from a rèsumé of our observations is that in present conditions the presence of coconut palms as presenting a source of breeding for mosquitoes does not appear prejudicial to the health of a community living in the vicinity and that before any drastic measures are taken to deal with such palms, in view of their economic importance, further investigations could usefully be undertaken."

(Journal of Tropical Medicine and Hygiene, June, 1927.)

(63) *Anti-Mosquito Work, 1927.*

(1) Complaints from Householders.

Number of complaints received	270
Number of premises visited	1,518
Number of potential breeding places found	40,518
Number of actual breeding places found	3,765

(2) *General Inspection Work.*

Number of premises visited	2,542
Number of tenements visited	366
Number of potential breeding places found	57,367
Number of actual breeding places found	3,603

(3) Summary.

Number of complaints received	270
Number of premises inspected	4,060
Number of tenements inspected	366
Number of potential breeding places found	97,885
Number of actual breeding places	7,368

XXXII.—Disinfecting and Cleansing.

(64) (*a*) *Steam Disinfecting Station.*

3,179 articles of clothing representing 145 loads were disinfected during the year.

(*b*)	Number of private premises cleaned up by Municipal Cleansing Gang	5,934
(*c*)	Number of dwellings disinfected	7,677
(*d*)	Number of dwellings pesterined	7,845
(*e*)	Number of dwellings claytonized	14,507
(*f*)	Number of dwellings unroofed	14,507
(*g*)	Number of limewashing notices served ...	858
(*h*)	Number of dwellings limewashed by owners or occupants	8,389

The Public Health Department undertakes the disinfection of bedding, linen, &c., of private houses, schools, hostels, boarding houses, hotels, &c., free of cost after the occurrence of most of the principal infectious diseases, but if no infectious disease has occurred a charge of Rs. 5 is made for each van-load or part of a van-load.

XXXIII.—General Cemeteries.

There are three general cemeteries, at Kanatta, Jawatta, and Madampitiya under the control of the Medical Officer of Health.

1. *Kanatta Cemetery.*—Mr. E. L. Herft, the keeper, is a keen horticulturist and has done a great deal to improve the appearance of the cemetery by introducing bright flowering plants and laying out flower beds, &c. The public mortuary which was erected in 1924 has proved a great convenience to the public. The following amounts have been recovered as fees for its use :—

	Rs.		Rs.
1924	75	1926	100
1925	125	1927	135

The following improvements were effected during the year :—

(1) Fifteen large and useless trees were removed.
(2) The inner side of the boundary wall was whitewashed instead of the dark colour-wash which give the place too gloomy an appearance.
(3) Two large shelves were fitted in the office and store room for storing old records and tools respectively.

2. *Liveramentu Cemetery, Jawatta.*—This cemetery has greatly improved in appearance since the appointment of the present keeper, Mr. D. Michael, in 1924. Its improved appearance has led to its being used more largely for burials.

The following improvements were effected during the year :—

(1) About five acres of jungle cleared.
(2) Two acres of ground laid out for Buddhist and Hindu burials.
(3) One hundred shade trees planted.
(4) Improvement of roads and paths.
(5) Painting, colourwashing, and repairs of cemetery-keeper's bungalow and cooly lines.

3. *Madampitiya Cemetery.*—Mr. E. G. LaBrooy, who had been keeper of this cemetery for fourteen years, retired on March 2, 1927. Mr. LaBrooy had his heart and soul in his work and spent practically the whole day in the garden, and the cemetery in his time looked more like a beautiful flower garden than a burial place. The keeper's bungalow, which is a very old building, had to be vacated as it is in a dangerous condition and the present keeper now lives outside in a rented house. By way of improvements eight flights of masonry steps were built during the year. Two new cooly lines were sanctioned to be erected in 1928.

XXXIV.—Housing.

As the report of Mr. R. A. Horan, the Inspector of Insanitary Dwellings, shows much excellent work was done during the year in respect of the improvement of insanitary dwellings in the city. I am pleased to be able to say that Mr. Horan has proved himself to be the right type of officer for this post. He is keen, patient, and tactful, and since his appointment in 1925 a large number of some of the very worst dwellings in the city have been improved beyond recognition. It is not possible to publish in a report of this nature more than a couple of photographs of improved dwellings, but those who have seen the conditions before and after improvement of these slum dwellings have been very favourably impressed by the work done. A photograph can only portray the lineaments ; it cannot show the filth, the squalor, the nauseating atmosphere, or the darkness and gloom of the interiors of these buildings, or the woe-begone appearance and misery of the wretched slum dwellers. It requires a personal visit to appreciate the difference after these wretched hovels have been "treated" by this Department.

It is often said that the lower working classes are naturally dirty, and that the condition of their dwellings is mainly due to their personal habits. My own experience is that the small, dark, ill-ventilated, overcrowded hovels that the poor are compelled to live in are mainly responsible for the demoralization of the people. Under the conditions they have to live in it is impossible for the people either to keep their dwellings or their persons clean. The best of them after a short and vain struggle against fearful odds give up the fight and reconcile themselves to their lot which is dirt and disease. It is the practice of this Department not to dishouse, if possible, any tenants, but to let the repairs and improvements go on while the tenants are in occupation, so that it is possible for us to frequently see the great change in the habits and demeanour of the same people before and after their houses have been improved. The effect of environment is surprising. Respectable people accustomed to better conditions of living, but driven by hard times to live in the crowded dingy alleys of the town, soon degenerate to the level of their dwellings, but, on the other hand, when their surroundings and houses are improved and better amenities are provided, even the poor slum dwellers gain more self respect and their habits naturally become cleaner. It is a common sight to see cleaner clothes, brighter happier faces, better furniture, and even window blinds in improved tenement dwellings which before improvement by this Department had been occupied by the same people who were then living in harmony with the surrounding filth and squalor.

A survey of all the insanitary dwellings of the town has been made, and they have been graded into BBB, BB, and B (very bad, moderately bad, and bad), and a start has been made with the triple Bs in the various wards of the city. In order to prevent dishousing of large numbers of people at one time the work is carried on slowly in different wards, but the progress made has been very satisfactory. There is, of course, a very serious shortage of suitable dwellings for the working classes and the action taken by this Department, while converting many insanitary unsuitable dwellings into sanitary habitable dwellings, reduces at the same time the actual number of dwellings by the demolition of obstructive buildings. This is unavoidable. For instance, at No. 4, Vincent street, fifty-five rooms and one tenement of five rooms had to be removed in order to secure the necessary open space and light and ventilation. This property was one of the very worst in Colombo as photograph X before improvement shows. After improvement a certain number of families had to look elsewhere, for homes and in the present state of acute shortage of houses these poor folk were driven to either share an already overcrowded house with others or go into smaller quarters.

The housing problem has been with us for years. In season and out of season the question has been discussed by the Press, Socio-Sanitary and Welfare workers, and various individuals. The abject conditions under which the poor live huddled together, the wretchedness and unsuitability of their "homes," the filth and squalor, crime and vice, drunkenness and debauchery, the dirt and disease which thrive in these squalid smut-begrimed quarters have all been depicted by abler pens than mine and are well known and admitted by all of us, but a satisfactory solution of the problem has yet to be found.

The indigenous population is steadily increasing and every month large numbers of immigrants arrive in the town from India in search of employment; and for all these people there is not sufficient house accommodation. Houses and tenements are not being built *pari passu* with the increase of the population, with the result that there is an acute shortage of houses, and people are driven in sheer desperation to offer enormous rents in order to secure some sort of shelter. The demand for small houses being entirely in excess of the supply, rents naturally go up. And because landlords can get very good returns from the tenement properties the value of land available for such buildings and situated in wards where the working classes mainly live naturally goes up, with the result that investors cannot buy land at the rates obtaining and build decent tenements and let them at a reasonable profit. So the whole thing goes round and round in a vicious circle.

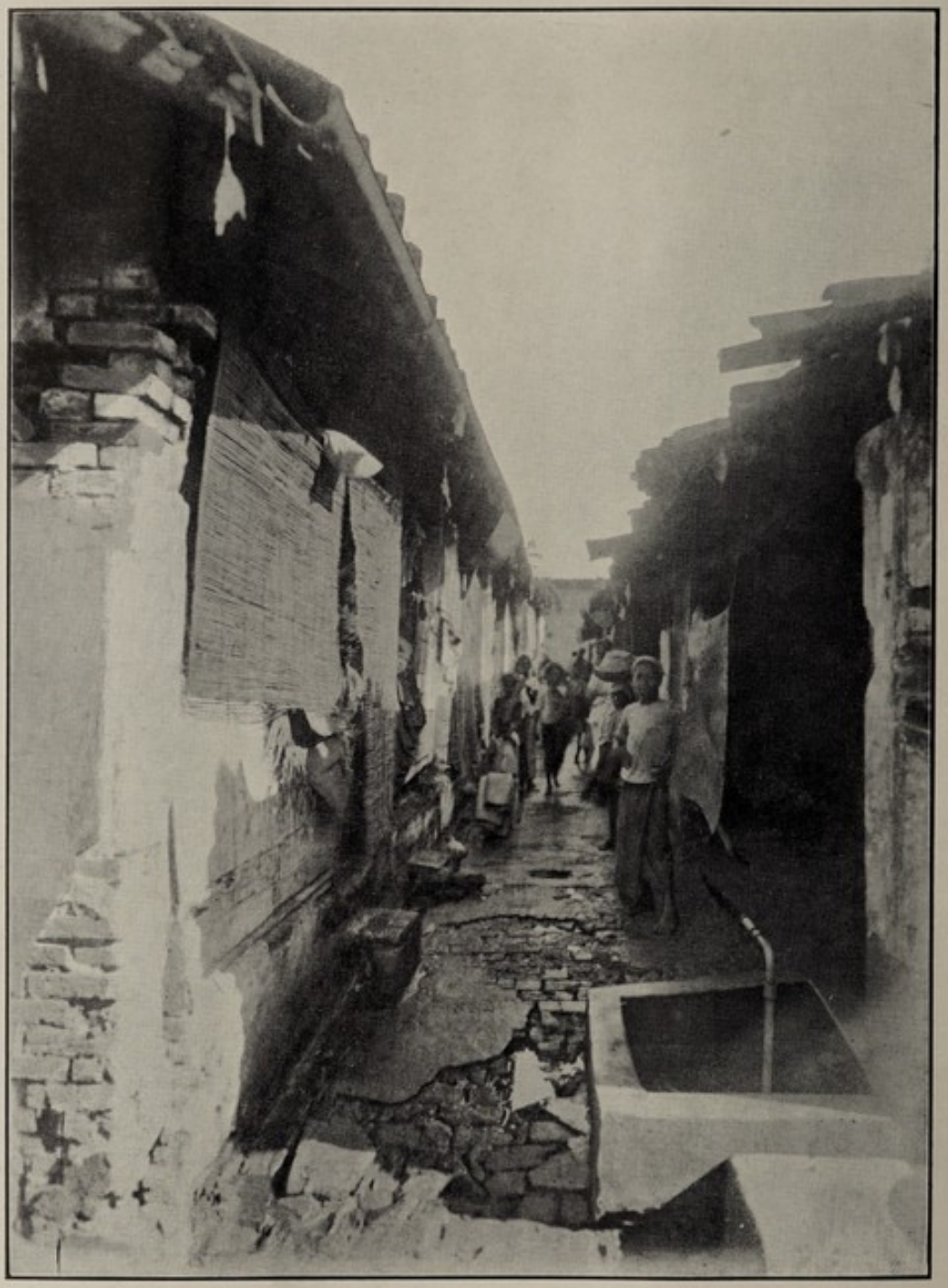
The poor pay rents entirely out of proportion to their incomes, sometimes as much as a third of their monthly earnings, and in return what do they get? Wretched hovels to live in with none of the decent amenities of life. As long as the demand is very much greater than the supply so long will rents keep high. The landlord is often blamed for putting up rents. It is very often the prospective tenant who offers a little more in order to secure a dwelling within easy reach of his place of employment or of his children's school. Even though unable to afford the higher rent many people are driven to do this to save themselves the daily toil of either walking long distances to work or to save the 'bus or tram hire or to save their children from those dangers that beset them when they walk long distances along our congested streets. Landlords or lessees cannot always be blamed if they accept a higher rent voluntarily proferred by desperate house-hunters. What then is the solution? The solution is to build more houses to meet the demands of the increasing indigenous population and the ever increasing immigrant population. Who is to build the houses? Private enterprise alone cannot be looked to to meet the entire demand. With the present high price of land capitalists do not find the erection of tenement properties an attractive or profitable investment for their money. The duty therefore devolves upon the Government, the Municipality, and the employers of labour.

The Government has done a fair amount. It has a great deal more to do. All Government labour, beginning with the working classes (for their need is the greatest and their present slum dwellings are the breeding grounds of diseases which not only endanger them but expose the rest of the town to infection) should be provided with quarters. The whole of the Police force, the Harbour force, the Railway force, the Government Factory force, Prison force, and all other Government labour forces should be decently and properly housed. This would release a large number of houses for non-Government people and enable the Public Health Department to push on more rapidly with the work of demolishing and improving the existing obstructive and insanitary dwellings.

Next to Government the Municipality should come forward and house all its labour forces. A certain small proportion have now been provided with quarters, but the necessary funds should be obtained from Government, either by way of a contribution or as a loan at low interest, not more than 3 per cent., to build quarters for the whole of its labour force. Colombo being a port of imperial importance has a legitimate claim to liberal assistance from Government. Expenditure on the improvement and sanitation of towns is a legitimate charge on the public revenues and on the funds of local authorities and this duty should not be shirked.

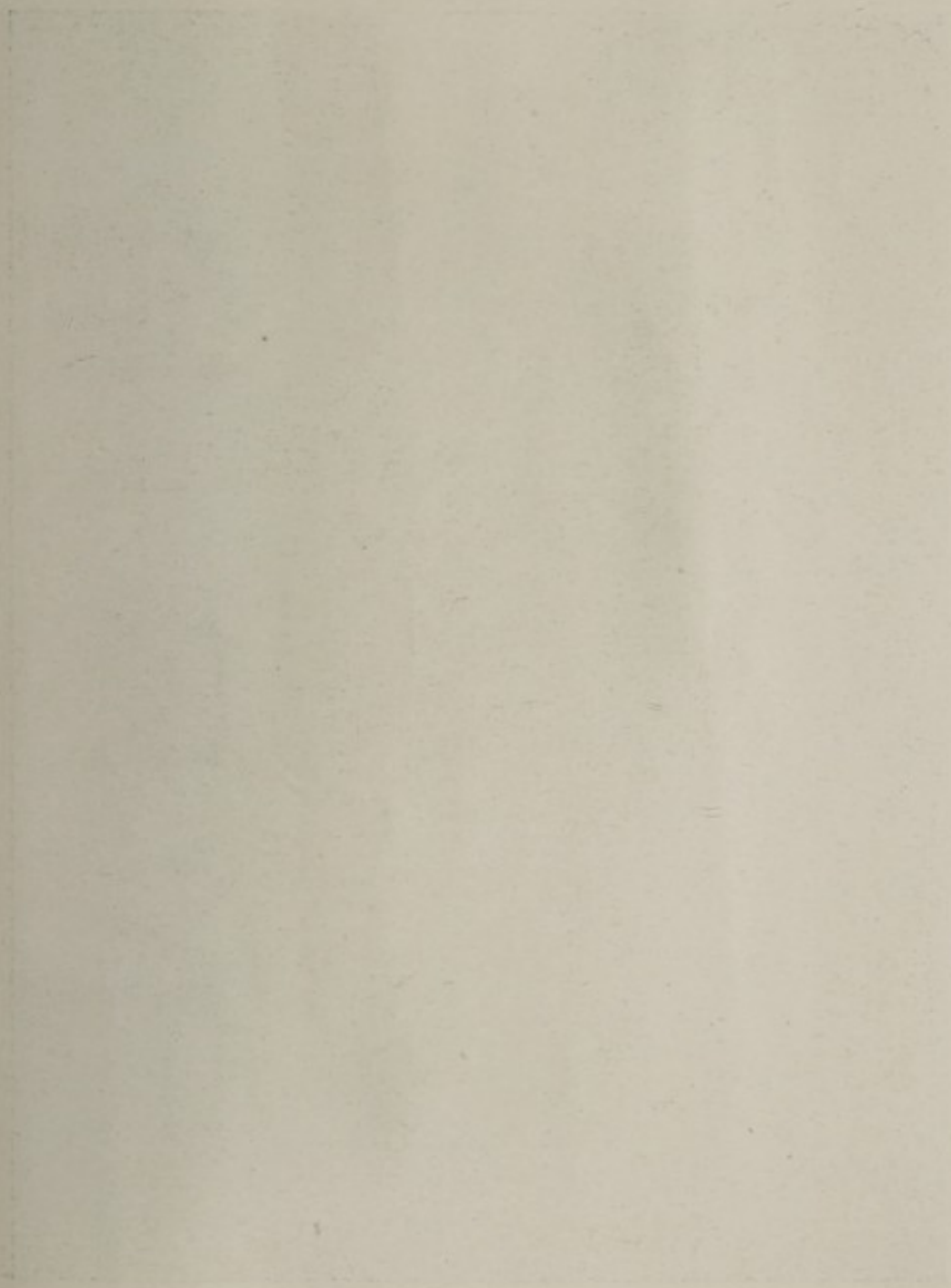
Thirdly, employers of labour forces, exceeding say 100 in number, should be compelled, if necessary by legislation, to provide decent housing for their workmen. Many of the big commercial firms in Colombo employ large labour forces, but do not care a dime how and where their employees live. It is a common sight to see at the "luncheon hour" workmen actually running all the way home to snatch a hasty meal and running back to their work-places to be there in time when the bell rings for the resumption of work. Do these employers realize what this means? Workmen cannot render proper or efficient service or keep good health living day after day under such hard and cruel conditions of life. Employers in Western countries have realized the importance not only to the workmen but also to themselves of housing their labour under sanitary and decent conditions. Certain firms in England and America and elsewhere have provided their workmen not only with excellent cottages, but also with playgrounds, crêches, dental, eye, ear, nose, and throat clinics, and they have found that the workmen are contented, their attendance at work is better, and the quality of the work turned out is very much superior. If employers in Colombo do not realize their obligations then the State must compel them to do so by enacting the necessary legislation; but before doing so both Government and the Municipality must first be in a position to say "We have done our duty by our labour, we expect you to do the same." Fortunately for employers of labour in this country workmen are not yet educated enough to understand or demand their rights; but a day will come when they will clamour for better conditions and it would be wise I think, not to wait till then.

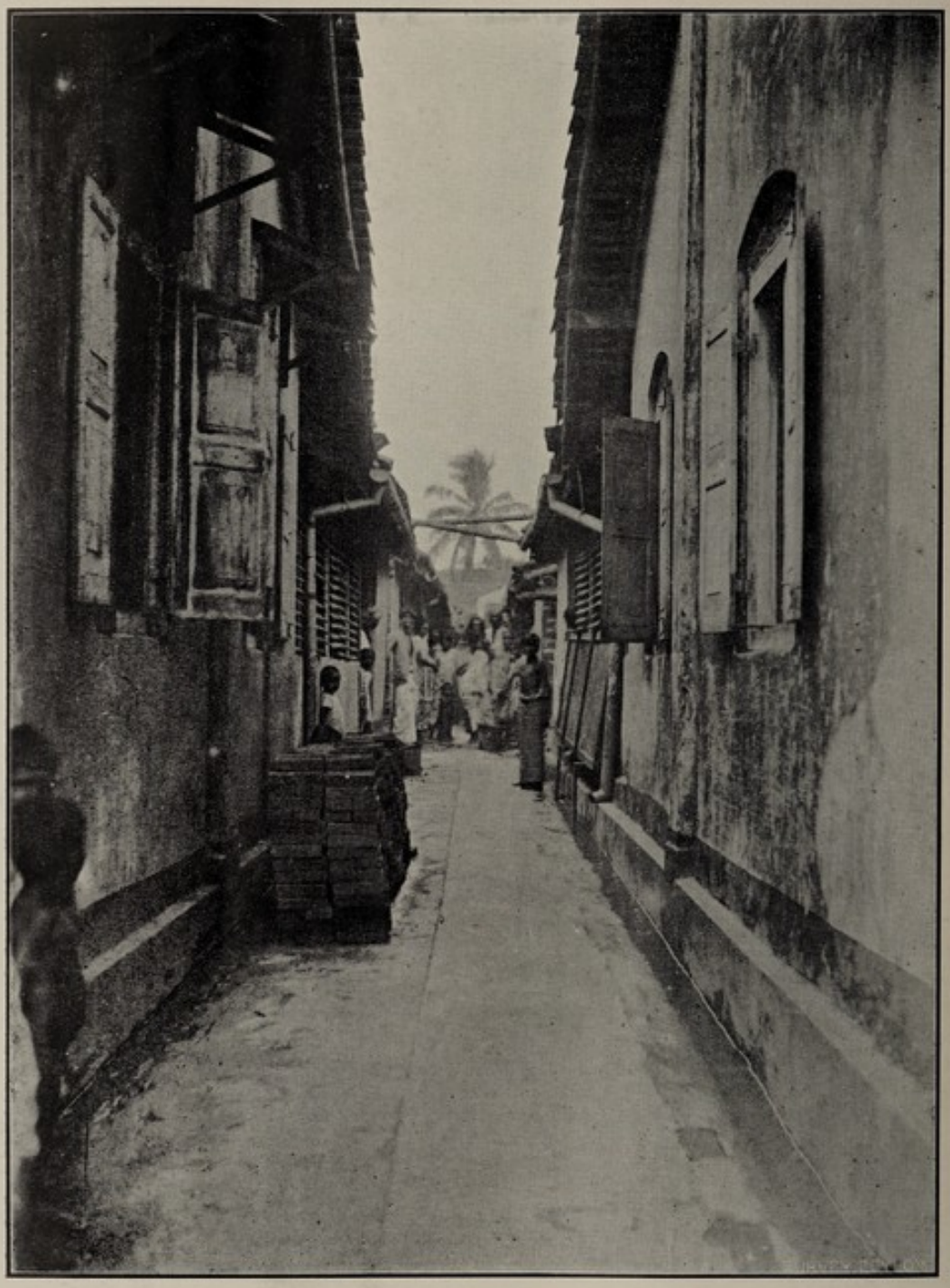
Finally, Government should lend to *bona fide* builders of workmen's dwellings money at low interest, not more than 3 per cent., to encourage the erection of more buildings. In connection with the improvement work carried out by the Public Health Department, I have come across many cases of owners genuinely anxious both to build more tenements and to improve their existing slum properties but for want of the necessary funds are unable to proceed with the work. If Government would help them with money at low interest on the security of the land and the dwellings to be erected and advance the money by instalments as the erection progresses many hundreds of tenements could and would be erected. State aid is therefore obviously imperative.



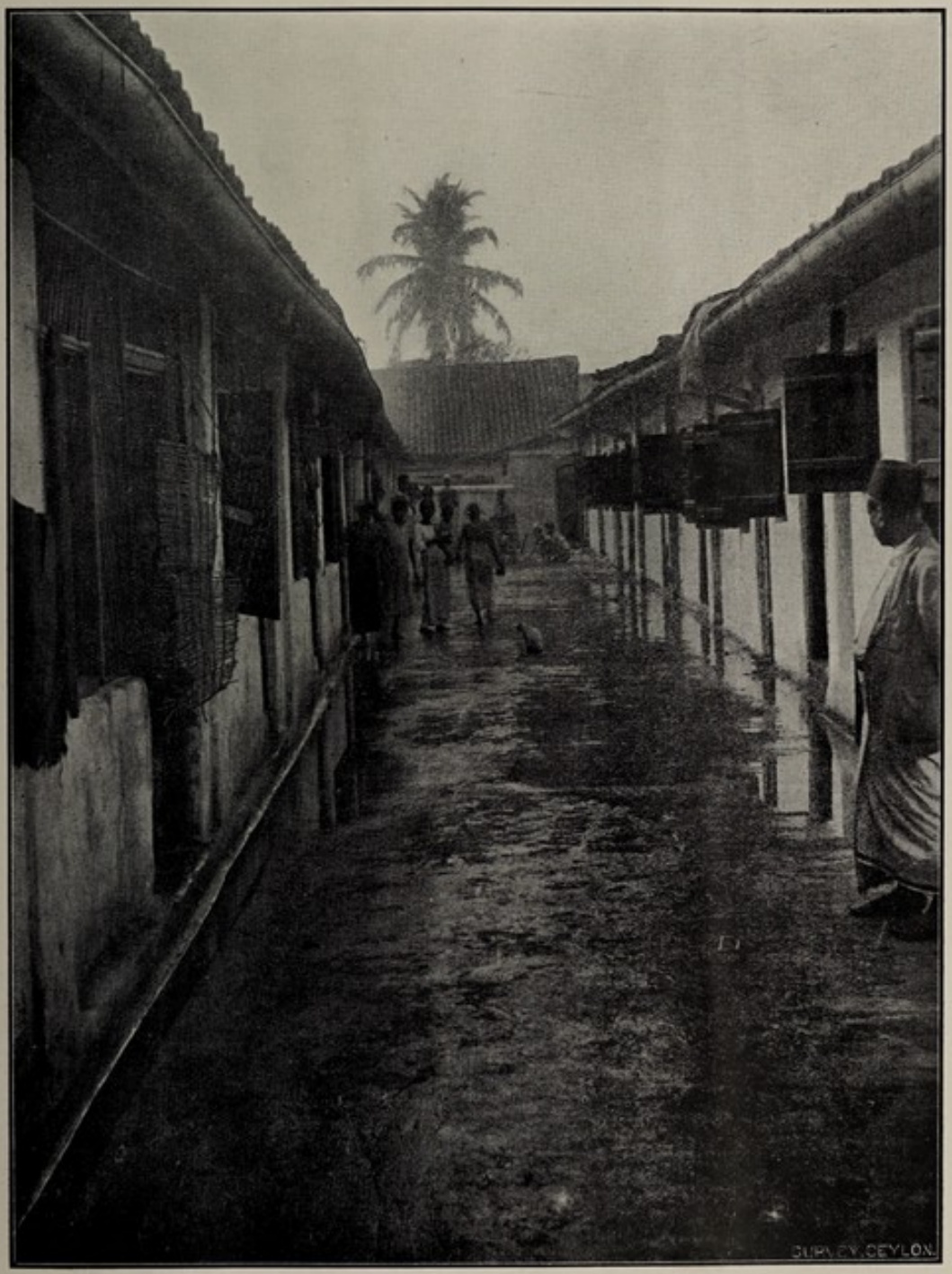
4/4 B, VINCENT STREET, BEFORE IMPROVEMENT.

4/4 B, VINCENT STREET, AFTER IMPROVEMENT.





19, DIAS PLACE, BEFORE IMPROVEMENT.



19, DIAS PLACE, AFTER IMPROVEMENT.

When Government and the Municipality and the large firms have all provided for their own workmen, thousands of dwellings would be released for others and rents and the price of land will naturally come down and tenants would then be in a position to select the type of dwelling they want and according to their means. Now there is no choice ; they must take what is available, and when landlords find any tumble-down shanty could be let at an exorbitant rent they do not even trouble to keep these wretched dwellings in a decent state of repair or rainproof, leave alone water service, drainage, or adequate lavatory accommodation.

Last but not least the Municipality should go ahead with the laying down of street lines and roading of those large areas which cannot now be developed for want of street lines. This will open up quite a considerable amount of land for building purposes.

The necessary legislation for going ahead with the Kochchikade slum improvement scheme has at long last been passed, and it is hoped the work of acquiring the land will now go on apace.

The Rajamalwatta improvement scheme has made little progress. The conditions obtaining there were set out by me in a report dated March 3, 1924, but beyond opening up a road by the demolition of a number of houses nothing more has been done to provide these very poor people with decent dwellings, and the conditions there are as bad as they were in 1924, when the inquiry was made and the report on its sanitary condition submitted by me.

Though there is serious overcrowding in several wards of the town this Department is unable to take action, for it would neither be fair nor politic to order occupants to quit their insanitary quarters until some alternative accommodation could be found for them elsewhere. This is a serious public health problem which must be faced sooner or later.

The completion of the Flood Scheme was expected to make available for building many hundreds of acres, but until these low-lying grounds can be raised to a certain level, buildings cannot be erected as there would be no means of drainage except at a prohibitive cost and private individuals have neither the necessary material for filling these lands nor the means of getting it at a reasonable cost. Here again unless Government comes to their aid or acquires the lands and fills them, all those reclaimed acres will continue to remain idle and undevoloped.

REPORT FOR 1927 OF THE INSPECTOR OF INSANITARY BUILDINGS.

The year 1927 has shown a marked increase in the number of insanitary premises completely improved. This scheme for the improvement of the most insanitary tenement premises in the town was begun in May, 1925, in which year only 7 premises were completed, in comparison with 31 premises in 1926 and 53 premises in 1927. These 53 premises are distributed among the following wards :—

Slave Island	...	18	Cinnamon Gardens	...	1
St. Paul's ...	...	17	Wellawatta ...	...	1
San Sebastian	...	9			
Kollupitiya...	...	5	Total	...	53
Maradana North	...	1			
Maradana South	...	1			

It will be noted that most of the work has been done in the very crowded and insanitary wards, in which we have endeavoured, with some little success, to improve the housing of the poor. With one or two exceptions, we have had the whole support of the owners in getting good results.

There are 849 tenements in the 53 premises improved, so that about 4,250 persons are now housed in well ventilated bright dwellings into which the rays of the sun can now enter.

133 dwellings have been demolished during the year. This has been absolutely unavoidable as they have been obstructive or lean to additions of tin, planks, gunnies, &c.

In the course of these improvements 79 doors and 374 windows have been provided, also 364 doors and 136 windows have been enlarged.

The floors of 1,084 rooms have been cemented. These floors were of mud, always damp and impregnated with years of pollution, no doubt, incubating the germs of various intestinal, skin, and such diseases.

In 359 two-roomed tenements the front walls have been replaced with low wall and trellis, thus permitting the free access of sun and air to the inner room.

It will be observed that 9,472 square feet of space has been unroofed. This is mostly essential open space created by the demolition of a room or part of a room in order to provide the necessary open space between buildings facing each other or facing a dead wall.

The length of roofs raised is 3,442 feet. In many cases the eaves of these roofs were five feet or less in height.

The policy of causing the unhousing of the least possible number of persons has been maintained ; the usual practice being to cause about three tenements to be vacated and improved. When these are completed they are re-occupied and the next three taken in hand, and so on ; this policy also includes that of not causing hardship to owners of moderate means. Here once the improvements are started time is always allowed extending in some cases from 12 to 18 months.

In many cases when the owners are given the plans showing the necessary improvements they think it excessive, but once the work is completed they have nearly always been grateful for the improved appearance and value of their properties.

I annex photographs showing the state of premises before and after improvement.

I need not stress that work of this nature requires constant supervision, patience, and tact, also a very great deal of travelling about the city, and when I see the results there is a feeling of satisfaction that I have in a humble way done a little towards the permanent improvement of our city.

R. A. HORAN,
Inspector of Insanitary Buildings.

(65) *List of Premises improved during 1927.*

San Sebastian Ward.

Premises No. 3, Akbar's lane.
Premises No. 9/10, San Sebastian street. 1, Akbar's lane.
Premises No. 10, Dhobies lane.
Premises No. 5, Akbar's lane.
Premises No. 6, Akbar's lane.
Premises No. 46, San Sebastian street.
Premises No. 47/48, 55A, San Sebastian street.
Premises No. 4, Akbar's lane.
Premises No. 32, San Sebastian street.

St. Paul's Ward.

Premises No. 22, Brassfounder street.
Premises No. 108, Chekku street.
Premises No. 6, Brassfounder street.
Premises No. 61, Chekku street.
Premises No. 86, Chekku street.
Premises No. 43/44, Gintupitiya street,
Premises No. 25, Brassfounder street.
Premises No. 87, Chekku street.
Premises No. 21, Gintupitiya street.
Premises No. 42, Chekku street.
Premises No. 55, Chekku street.
Premises No. 82, Chekku street.
Premises No. 9, Brassfounder street.
Premises No. 40, Siripina lane.
Premises No. 62, Chekku street.
Premises No. 40, Gintupitiya street.
Premises No. 47, Brassfounder street.

Maradana North.

Premises No. 53-63, Panchikawatta road.

Maradana South.

Premises No. 17, Symonds road.

Slave Island Ward.

Premises No. 48-52, Short's road.
Premises No. 55 (tenements Nos. 23-33), Union place.
Premises No. 36-40, Short's road.
Premises No. 55 (tenements Nos. 1-6), Union place.
Premises No. 6/8, Java lane.
Premises No. 54/56, Ferry lane.
Premises No. 22/50-64, Station passage.
Premises No. 66, Church street.
Premises No. 57, Union place.
Premises No. 10-14, Kew lane.
Premises No. 18-22, Stewart street.
Premises No. 68-72, Short's road.
Premises No. 13-19, Java lane.
Premises No. 5/11, Java lane.
Premises No. 3, Java lane.
Premises No. 15 (tenements Nos. 1-18), Union lane.
Premises No. 9-11, Chapel lane.
Premises No. 8, Java lane.

Kollupitiya Ward.

Premises No. 26, Muhandiram's road.
Premises No. 12, Kollupitiya lane.
Premises No. 14, Kollupitiya lane.
Premises No. 7, Greenpath.
Premises No. 247, Kollupitiya road.

Cinnamon Gardens Ward.

Premises No. 9, Alexandra place.

Wellawatta Ward.

Premises No. 118, Vaverset place.

(66) *Statement of Work done by the Inspector of Insanitary Buildings during the Year 1927.*

1.	Number of plans called for from Municipal Engineer	49
2.	Number of plans received	58
3.	Number of applications for "closing order"	63
4.	Number of "closing orders" issued	54
5.	Number of applications for "closing order" struck off	—
6.	Number of applications for "closing order" pending	13
7.	Number of closing notices affixed on buildings	820
8.	Number of premises vacated after "closing order"	1
9.	Number of tenements vacated under (8) above	24
10.	Number of persons dishoused	98
11.	Number of premises improved	53
	(*a*) Number of tenements in (11)	849
	(*b*) Number of tenements demolished in (11)	133
	(*c*) Number of persons dishoused in (11)	403
	(*d*) Number of new doors provided in (11)	79
	(*e*) Number of new windows provided in (11)	374
	(*f*) Number of doors enlarged in (11)	364
	(*g*) Number of windows enlarged in (11)	136
	(*h*) Number of rooms cemented in (11)	1,084
	(*i*) Number of masonry partitions removed in (11)	57
	(*j*) Number of plank partitions removed in (11)	33
	(*k*) Number of gunny partitions removed in (11)	7
	(*l*) Number of rooms in which masonry walls have been replaced by trellis in (11)	359
	(*m*) Space unroofed (square feet) in (11)	9,472
	(*n*) Length of roof raised (in feet)	3,442

XXXV.—Municipal Free Dispensaries.

With the opening of a new dispensary at Wellawatta in January, 1927, the number of free dispensaries has been brought up to six. The other five are located at Slave Island, St. Paul's, Maradana, Modera, and New Bazaar.

A free dispensary exclusively for women and children has been sanctioned for San Sebastian Ward, which has a large Muslim population. This dispensary will be opened in 1928, as soon as the services of a properly qualified woman medical officer are secured.

Each of the six dispensaries is in charge of a fully qualified medical man, and the work done shows what a great boon they are to the poor.

The only disadvantage about these dispensaries is that the rented buildings in which the work is carried on are, in the majority of cases, unsuitable. It is a matter of great difficulty to secure a suitable house for the purpose in the right locality. Council should seriously consider the question of putting up its own dispensary buildings with quarters upstairs for the Apothecary. In the long run it would be a saving to Council.

The following summary shows the work done at the six dispensaries :—

(67) *Work done at the Municipal Dispensaries in 1927.*

	(a) Slave Island Dispensary.	(b) St. Paul's Dispensary.	(c) Maradana Dispensary.	(d) Modera Dispensary.	(e) New Bazaar Dispensary.	(f) Wellawatta Dispensary.
Number of patients treated	15,835	10,463	11,691	12,174	10,049	6,685
Number of visits by patients	29,590	14,654	20,736	19,928	19,462	13,649
Daily average attendance	95	41	66	64	63	46
Number of outdoor visits paid by the Medical Officer	104	40	132	329	20	30
Number of cases sent in by Health Visitor's tickets	170	—	97	—	153	40
Number of labour cases in which medical or surgical aid rendered	3	1	14	27	—	—
Number of Municipal employees treated	325	51	14	59	85	65
Number of subjects inoculated against Typhoid	8	12	2	14	22	—

XXXVI.—Child Welfare.

Dr. (Mrs.) R. S. Rowlands, Assistant Medical Officer in charge of Child Welfare, who rendered good service, resigned her appointment on March 31, 1927, and was succeeded on August 16, 1927, by Dr. (Mrs.) M. C. Barclay.

The staff of Health Visitors and Midwives was further increased by the appointment of two more Health Visitors and three Midwives, one of whom is a Muslim, making a total of fifteen Health Visitors and eleven Midwives.

190 infants were given free milk, as compared with 126 in the previous year, representing a quantity of 2,510 gallons of milk at a cost of Rs. 6,020·60.

From the latter part of last year milk allowed to babies of Slave Island and New Bazaar Wards was issued to the mothers at the Slave Island and New Bazaar Municipal Dispensaries ; in the case of the other wards the milk was supplied direct to the recipients from the dairies as before. This method of distribution is obviously not satisfactory as there is no guarantee that the milk is pure or unadulterated. When the new centre at Gintupitiya is opened it is proposed to distribute the milk for San Sebastian, New Bazaar, and St. Paul's Wards from the Centre after proper pasteurization, &c.

The draft Medical Ordinance dealing with the registration, &c., of Midwives has not been passed yet, with the result that there is still no control over unqualified and unregistered Midwives.

REPORT OF THE ASSISTANT MEDICAL OFFICER OF HEALTH, CHILD WELFARE.

The Medical Officer of Health, Colombo.

I HAVE the honour to submit my report on the work done in the Maternity and Child Welfare Branch of the Public Health Department from August 16 to December 31, 1927.

During this period there was no definite centre to work from, but clinics were held at the Municipal Free Dispensaries where expectant and post-partum mothers came for advice and treatment and brought their babies.

Health Visitors.

Mrs. Alphonso, who was ill in hospital when I took over charge, continued in such bad health that it was found necessary to invalid her from service.

Some transfers, which had been arranged before the date of my joining, were carried out soon after I took over charge, and on this account the work suffered a little because the people had to get used to a new visitor and the visitor had to learn the intricacies of a new district and to make new friends of the poor people in it.

The work of the remaining fourteen Health Visitors for the year is shown in Statement 68.

These figures are large, but, I am of opinion, they do not mean very much ; just calling at a house to inquire if "mother and baby are well ?", and recording the reply does not tend to an improved condition of health, and the instructions *re* "infant feeding" refer to artificially fed babies. I am sorry to find so few breast-fed babies in Colombo.

Midwives.

There are now eleven Midwives on our books, one Muslim Midwife having been appointed since I joined. She has been posted to Slave Island. The remaining are placed as follows :—

Modera ...	2	New Bazaar ...	1
Kotahena ...	1	Maradana ...	1
St. Paul's ...	2	Kollupitiya ...	1
San Sebastian ...	1	Wellawatta ...	1

Their work is satisfactory from the point of view that they do their best, but they have had no previous training in *district work.*

The number of confinements attended during the whole year is shown in Statement 69.

Since I joined the Department I attended to 14 abnormal obstetrical cases, in nine of which operative measures were resorted to, in all of which, I am pleased to say, the mothers recovered speedily ; but in two cases, each a prolapsed cord, the child succumbed.

It will not be out of place to mention here that some of these cases were rendered abnormal through early interference when labour started—occipito-posterior cases were not given time to rotate before they were interfered with. This "meddlesome midwifery" on the part of over-anxious relatives and midwives is to be regretted.

Free milk is distributed to deserving cases ; but there is still no system in this part of the work.

Results.

I have been in the Department too short a time to judge of the results. I understand that the *infant* mortality is going down, but I am not sure if these "saved" babies grow up to adult age to form a strong and healthy nation in a few years time, or if they die off in their second or third year of life.

M. C. BARCLAY,
Assistant Medical Officer of Health (Child Welfare).

(68) *Work done by Health Visitors during 1927.*

Name.	No. of Houses Visited.	Instructions re Infant Feeding.	No. of Tickets Issued.	Municipal Midwife's Cases.
Mrs. E. Raymond ...	5,883	4,671	89	16
Miss I. de la Harpe ...	5,039	4,582	10	41
Mrs. A. Cruse ...	9,527	8,944	10	43
Mrs. I. Marsden ...	7,533	7,132	37	55
Miss L. G. Wilson ...	9,132	5,506	194	88
Mrs. E. Meier ...	6,779	875	61	48
Miss E. Jansen ...	4,731	4,161	17	45
Mrs. V. Misso ...	9,743	9,596	80	75
Miss A. Schokman ...	7,100	7,051	67	162
Mrs. M. M. Samarasekera ..	7,690	7,158	32	137
Mrs. M. S. Perera ...	7,519	3,506	—	129
Mrs. M. Fernando ...	7,992	7,897	6	28
Mrs. F. E. M. Harris ...	4,994	4,883	6	85
Mrs. M. John ...	5,363	5,038	55	19
Total ...	99,025	81,000	664	971

(69) *List of Cases conducted by Midwives, 1927.*

Number.	Name of Midwife.	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1	A. Fernando ...	15	17	17	14	17	10	8	16	9	13	20	20	176
2	P. M. Perera ...	8	10	3	5	4	6	5	1	8	2	11	3	66
3	E. Direckze	7	10	7	5	7	7	6	5	8	11	19	11	103
4	D. B. Dias	13	6	7	3	—	8	5	4	12	13	17	9	97
5	R. Perera	14	22	12	5	8	10	14	10	15	15	13	9	147
6	N. Dharmaratne ...	20	19	11	15	22	11	22	8	18	8	23	25	202
7	M. Sathasivam ...	9	11	7	7	7	3	8	9	10	9	5	14	105
8	D. M. Pallawela ...	11	14	10	13	13	12	6	7	8	8	12	12	126
9	P. Dasanayake ...	—	5	7	3	4	3	6	5	1	3	2	4	43
10	M. P. Jayasinghe ...	—	—	—	—	—	—	2	7	4	5	9	1	28
11	Inche Juhari ...	—	—	—	—	—	—	—	—	—	—	8	16	24
	Total ...													1,117

(70) *Statement of Expenditure on Milk supplied to Infants by the Child Welfare Branch during the Year 1927.*

Month.	No. of Bottles of Milk.	Cost of Milk. Rs. c.	Month.	No. of Bottles of Milk.	Cost of Milk. Rs c.
January	755	302 0	September	1,368½	547 40
February	1,128½	451 40	October	1,043½	417 40
March	1,518	607 20	November	918	367 20
April	1,478	591 20	December	1,019	407 60
May	1,523¾	609 50			
June	1,452¾	581 10			
July	1,404	561 60	Total	15,065½	6,026 20
August	1,456½	582 60			

(71) *Ante-natal Clinics done by Assistant Medical Officer of Health (Child Welfare).*

Dispensaries.		August.	September.	October.	November.	December.	Total.
Wellawatta	Mothers	3	7	5	—	—	15
	Babies	5	6	11	4	7	33
Maradana	Mothers	10	13	8	14	—	45
	Babies	6	34	8	14	—	62
St. Paul's	Mothers	4	19	31	12	—	66
	Babies	8	21	28	26	—	83
Slave Island	Mothers	8	6	4	7	2	27
	Babies	22	6	3	5	2	38
New Bazaar	Mothers	2	14	7	7	—	30
	Babies	7	8	13	2	—	30
Mutwal	Mothers	3	21	7	2	—	33
	Babies	5	8	15	7	—	35

Non-Municipal Child Welfare Work.

De Soysa Lying-in Home Ante-natal Clinic.—The Superintendent reports that 1,589 first visits, as against 948 in the previous year, were paid by mothers.

The Child Welfare Association's Crèche.—The Honorary Secretary has furnished the following report :—

"We have an average daily attendance of between 60 and 70 children of ages varying from 1 week to 8 and 9 years. Our object is to provide the children with a comfortable home while the mothers are at work. Fresh milk, barley, &c., are given to the babies, and the bigger children have the usual meal of rice and curry and afternoon tea. The crèche is in charge of an experienced Matron who lives on the premises, and is managed by a Visiting Committee of ladies, who are also members of the Association. Miss (Dr.) Torrance, a member of the Committee, attends to the medical needs of the children weekly, and despatches all cases that require hospital treatment to the children's hospital.

"We have discontinued admitting the bigger children since this year as we had to make room for a large number of deserving cases of young infants. We hope in the course of this year to erect a playing shed for the children."

Ceylon Social Service League (Women's Branch).—The Honorary Secretary has furnished the following report :—

1. *The Clinic* at Headquarters of the League open twice a week on Sundays and Thursdays from 8·30 to 9·30 A.M., is visited by Drs. T. H. Gunewardene, C. J. C. de Silva, assisted by Mr. C. X. Pinto who looks after the supply of drugs provided free by the Government.

   Maradana Milk Depôt.—Twelve bottles of milk were distributed daily in the morning to about 36 babies on an average, besides dry foods, barley, and condensed milk in special cases.

2. *Slave Island Milk Depôt.*—An average of 12 bottles of milk were distributed twice daily to about 28 babies, also rusks and bread supplied.

3. *Kotahena Milk Depôt.*—Seven bottles of milk were distributed to about 18 babies a day on an average. This depôt had to be closed on account of change of Secretary in December, 1927, and will be reopened in February, 1928.

4. *Bambalapitiya Milk Depôt.*—Four bottles of milk were distributed daily to about 19 babies.

5. *Cotta Road Milk Depôt.*—This milk depôt is being run under the auspices of The Ceylon Social Service League at the expense of Mrs. F. R. Senanayake. An average of 7 bottles of milk were distributed daily to about 25 babies.

   Also relief is given to expectant and nursing mothers: (approximately) 5 dozen tins small condensed milk, 5 pounds barley, and about half dozen of malted milk every Sunday to about 15 mothers.

XXXVII.—Staff Changes.

Medical Officer of Health.—Dr. C. V Aserappa, Chief Assistant Medical Officer of Health, promoted Medical Officer of Health on July 13, 1927, to succeed Dr. W. M. Philip, C.B.E., retired.

Assistant Medical Officer of Health.—Dr. C. H. Gunasekera, Second Assistant Medical Officer of Health, promoted Chief Assistant Medical Officer of Health on July 13, 1927, to succeed Dr. C. V. Aserappa, promoted.

Dr. F. N. Jayawardene, Third Assistant Medical Officer of Health, promoted Second Assistant Medical Officer of Health on July 13, 1927, to succeed Dr. C. H. Gunasekera promoted.

Dr. H. Ratnarajah appointed Third Assistant Medical Officer of Health on September 20, 1927, to succeed Dr. F. N. Jayawardene, promoted.

Dr. (Mrs.) M. C. Barclay, M.B. (Calcutta), B.Sc. (Bristol), appointed Assistant Medical Officer of Health, Child Welfare, on August 16, 1927, to succeed Dr. (Mrs.) R. S. Rowlands, resigned.

Dispensary Medical Officers.—Dr. Leo Peiris appointed Medical Officer of Wellawatta Dispensary on January 4, 1927. (New post).

Inspector.—Mr. R. C. MacKeller, Relief Sanitary Inspector, appointed Sanitary Inspector on May 1, 1927, to succeed Mr. M. E. Akbar, who was transferred to the Municipal Engineer's Department.

Relief Inspector.—Mr. C. P. de Zoysa, Sub-Inspector, appointed Relief Sanitary Inspector on May 9, 1927, in place of Mr. R. C. MacKellar, promoted.

Sub-Inspector.—Mr. J. L. Perera, Stock Inspector, appointed Sanitary Sub-Inspector on July 16, 1927, to succeed Mr. C. P. de Zoysa, promoted.

Apothecaries.—Mr. C. D. S. Ameratunga appointed Apothecary of Wellawatta Dispensary on January 4, 1927. (New post).

Mr. V. S. Mailvaganam appointed Apothecary of Wellawatta Dispensary on June 15, 1927, to succeed Mr. C. D. S. Ameratunga, discontinued.

Cemetery-keeper.—Mr. V. F. Fonseka appointed Cemetery-keeper, Madampitiya Cemetery, on March 2, 1927, to succeed Mr. E. G. LaBrooy, retired.

Health Visitors.—Mrs. B. V. Misso appointed Health Visitor on February 1, 1927. (New post).

Miss E. M. Jansen appointed Health Visitor on February 1, 1927. (New post).

Midwives.—Mrs. P. Dassanayake appointed Midwife, Wellawatta Ward, on February 2, 1927. (New post).

Mrs. M. P. Jayasinghe appointed Midwife, Kollupitiya Ward, on July 1, 1927. (New post).

Mrs. Inche Juhari, appointed Muslim Midwife, Slave Island Ward, on October 17, 1927. (New post).

Telephone Operator.—Mr. M. P. V. Pinto appointed Telephone Operator on August 18, 1927 to succeed Mr. R. A. de Alwis, resigned.

Bicycle Orderly,—W. D. Boteju appointed Bicycle Orderly on February 4, 1927, to succeed Orderly E. de Saram, retired.

Peon.—D. W. Jayasinghe appointed Peon on August 1, 1927, to succeed Peon Charles Dias, retired.

Dispensary Orderlies.—M. C. Fernando appointed Orderly of Wellawatta Dispensary on January 1, 1927. (New post).

G. D. Simon Singho appointed Orderly of Wellawatta Dispensary on May 1, 1927, to succeed M. C. Fernando, discontinued.

XXXVIII.—Bacteriological Laboratory.

Dr. Hirst, the City Microbiologist, was away on leave during the greater part of the year, and the routine work of the Laboratory was attended to during his absence by Mr. C. A. Wouterssz. Dr. Hirst's report is annexed. *Vide* Annexure A.

XXXIX.—Analytical Work.

The City Analyst's report dealing with the various examinations made on behalf of the Council is annexed. *Vide* Annexure B.

Town Hall,
Colombo, April 30, 1928.

C. V. ASERAPPA,
Medical Officer of Health.

Annexure A.

REPORT OF THE CITY MICROBIOLOGIST FOR 1927.

I was absent on leave in Europe from March 31 to November 28 of the year under review, and from November 30 till December 16 away from station in attendance at Calcutta on the sittings of the Expert Committee on Plague of the League of Nations to which I was nominated in the course of the year.

Opportunity was taken while on leave to inquire into the technique of grain fumigation and into the advisability of experimenting with sodium silicate for the treatment of the Colombo water with a view to preventing incrustation. It would appear that such experiments carried out in England for a similar purpose have given unsatisfactory results. I have decided not to pursue this line of investigation in Colombo.

At the invitation of the Council of the Royal Society of Tropical Medicine, I delivered a lecture at the annual meeting on "Rat Flea Surveys and their value as a guide to Plague Preventive Measures." This lecture is published in the Transactions of the Society.

During my absence on leave the laboratory was reconstructed and enlarged at a cost of about Rs. 12,000. The floor area of the main laboratory and the offices was doubled by carrying out the rear wall and adding a new span to the roof. A new front entrance and portico was fitted to the main building. The research room was also greatly extended by adding a new wing to correspond to that containing the sterilizing room. Greatly improved and extended storage accommodation was also provided. A water carriage system of sewage disposal has been installed.

These improvements will remedy the constantly increasing congestion which obtained in the old laboratory.

It will be necessary to provide additional funds for furniture and gas and electric fittings to enable our excellent equipment to be laid out for working to the best advantage.

Mr. C. A. Woutersz and the staff of the laboratory appear to have carried on the routine work during my absence very satisfactorily despite the disorganization occasioned by these building operations.

The second part of my Memoir on the Parasitology of Plague was seen through the press during the first three months of the year. The complete memoir bound under an official cover has been distributed to a number of public health authorities interested in problems connected with the spread of plague.

The investigation into the fate of hookworm ova and larvæ in the Angoda battery of three circular Emscher pattern sewage sedimentation tanks was continued in the early part of the year. One more comprehensive series of tests is required to bring this work to a conclusion.

(*a*) *General Distribution of Routine Specimens examined during 1927.*

Clinical specimens	1,471
Town water	192
Rat fleas for species distribution	2,453
Rodents for plague :—	
Port Commission	4,866
Veterinary Department	18,095
Public Health Department	2,368
Veterinary Department :—	
Rats for flea index	1,253
Goats' blood for anthrax	203
Miscellaneous	18
	30,919

(*b*) *Distribution of Clinical Specimens.*

	Examined for	Number Received.	Number Positive.
Diagnostic service for practitioners ...	Enteric	126	32
	Tuberculosis	74	12
	Dysentery	57	14
	Diphtheria	63	22
	Hookworm	71	23
	Malaria	11	2
	Various	215	135
Public Health Department ...	Enteric	664	37
	Human plague	41	21
	Dysentery	12	3
	Diphtheria	82	9
	Hookworm	28	17
	Tuberculosis	7	1
	Leprosy	6	2
	Various	14	3
		1,471	333

(c) Distribution of Rodents examined for Plague in 1927.

(1) By mode of Capture.

Species.		Number examined.	Number infected.	Percentage infected.
Trapped rats ...	R. rattus	17,020	8	0·05
	R. norvegicus	4,548	5	0·1
	M. musculus	683	—	—
	Bandicoots	—	—	—
Rats found dead.	R. rattus	74	9	12·2
	R. norvegicus	120	8	6·67
	M. musculus	10	2	20·0
	Bandicoots	—	—	—
Rats killed by Clayton machines.	R. rattus	730	3	0·41
	R. norvegicus	1,576	4	0·25
	M. musculus	566	—	—
	Bandicoots	2	—	—
		25,329	39	0·15

(2) By Species and Source.

		Trapped Alive.			Found Dead.			Killed by Fumigation.		
		Number examined.	Number infected.	Percentage infection.	Number examined.	Number infected.	Percentage infection.	Number examined.	Number infected.	Percentage infection.
R. rattus ...	Veterinary Department	16,934	2	0·01	15	—	—	—	—	—
	Public Health Department	—	—	—	59	9	15·25	573	3	0·52
	Port Commission	86	6	6·98	—	—	—	157	—	—
R. norvegicus.	Veterinary Department	1,146	3	0·26	—	—	—	—	—	—
	Public Health Department	—	—	—	84	7	8·33	1,240	4	0·32
	Port Commission	3,402	2	0·06	36	1	2·78	336	—	—
M. musculus.	Veterinary Department	—	—	—	—	—	—	—	—	—
	Public Health Department	—	—	—	10	2	20·0	400	—	—
	Port Commission	683	—	—	—	—	—	166	—	—

Two Bandicoots, *Bandicota malabarica*, killed by fumigation were negative for plague.

(d) Monthly Flea Index.

Month.	Number of Rats examined.	Flea Index.	Month.	Number of Rats examined.	Flea Index.
January	—	—	July	87	1·43
February	131	3·02	August	122	1·62
March	123	3·06	September	148	1·68
April	64	2·25	October	112	2·33
May	109	1·92	November	118	2·73
June	110	1·03	December	129	1·39

A special survey of rat species distribution was in progress in January.

February 18, 1928.

L. F. HIRST,
City Microbiologist.

Annexure B.

REPORT OF THE CITY ANALYST FOR 1927.

During my absence on leave and subsequent sick leave, Mr. A. E. Purves acted as City Analyst, taking over from Professor R. N. Rae of the University College.

Milk samples amounted to 1,158. Sampling was fairly evenly distributed during the year. The following table gives details :—

Milk Analysis.

Added Water.

Month.	Total No. of Samples examined.		0 Per Cent.	1-10 Per Cent.	11-30 Per Cent.	Above 30 Per Cent.	Maximum.
January ...	94	No. of samples	54 ...	27 ...	12 ...	1 ...	46 per cent.
		Per cent. of samples	57·5 ...	28·7 ...	12·7 ...	1·1 ...	
February ...	97	No. of samples	55 ...	31 ...	11 ...	— ...	26 per cent.
		Per cent. of samples	56·7 ...	32 ...	11·3 ...	— ...	
March ...	97	No. of samples	57 ...	29 ...	6 ...	5 ...	63 per cent.
		Per cent. of samples	58·8 ...	29·9 ...	6·2 ...	5·2 ...	
April ...	95	No. of samples	55 ...	27 ...	4 ...	9 ...	67 per cent.
		Per cent. of samples	58 ...	28·4 ...	4·2 ...	9·4 ...	
May ...	93	No. of samples	59 ...	25 ...	2 ...	7 ...	60 per cent.
		Per cent. of samples	63·4 ...	26·9 ...	2·2 ...	7·5 ...	
June ...	99	No. of samples	68 ...	26 ...	4 ...	1 ...	61 per cent.
		Per cent. of samples	68·6 ...	26·2 ...	4·5 ...	1·01 ...	
July ...	98	No. of samples	82 ...	21 ...	8 ...	7 ...	53 per cent.
		Per cent. of samples	63·4 ...	21·4 ...	8·1 ...	7·1 ...	
August ...	97	No. of samples	55 ...	32 ...	7 ...	3 ...	57 per cent.
		Per cent. of samples	56·6 ...	33·9 ...	7·2 ...	3·1 ...	
September ...	96	No. of samples	60 ...	29 ...	2 ...	5 ...	60 per cent.
		Per cent. of samples	62·5 ...	30·1 ...	2·1 ...	5·2 ...	
October ...	97	No. of samples	71 ...	18 ...	6 ...	2 ...	56 per cent.
		Per cent. of samples	73 ...	18·6 ...	6·2 ...	2·1 ...	
November ...	97	No. of samples	68 ...	19 ...	8 ...	2 ...	53 per cent.
		Per cent. of samples	70 ...	19·6 ...	8·2 ...	2·1 ...	
December ...	97	No. of samples	72 ...	18 ...	4 ...	3 ...	60 per cent.
		Per cent. of samples	74·4 ...	18·6 ...	4·1 ...	3·1 ...	
Total ...	1,157	No. of samples	736 ...	302 ...	74 ...	45 ...	67 per cent.
		Per cent. of samples	63·6 ...	26·1 ...	6·4 ...	3·9 ...	

During the year 63·6 per cent. of the milk samples were considered up to standard. 26·1 per cent. had the equivalent of 1-10 per cent. added water, 6·4 per cent. of the samples had the equivalent of 11-30 per cent. of added water, and 3·9 per cent. had over 30 per cent. of added water. Adding the figures for 11-30 per cent. and over 30 per cent. added water, 10 per cent. of the total milks are found to be grossly adulterated.

The maximum adulteration during the year was 67 per cent. added water. The Ceylon Social Service League submitted a sample in December with 60 per cent. added water.

The seasonal variation shows a drop in purity during August, this is probably due to the large influx of population into Colombo during the festivities, when the milk vendor adds water to the milk to meet the increased demand. The year opens with 58 per cent. pure samples and gradually improves, with the exception of August, until December when the purity index is 74 per cent. Milks falling under the 1-10 per cent. added water scale starts the year with 29 per cent. and begins to improve in May (27 per cent.) then falls back in August (32 per cent) and September (30 per cent.), then improves again during October-December, finishing with 19 per cent. The 11-30 per cent. scale shows wider variations, starting with 13 per cent. in January, there is an improvement in March (6 per cent.) which continues until May (2 per cent.) then recedes in August (8 per cent.), improves again in October (6 per cent.), falls again in November to 8 per cent. and improves to 4 per cent. in December.

The grosser adulteration over 30 per cent. added water, starts the year well but falls off April 9 per cent., May 8 per cent. until June (1 per cent.), then falls off again but finishes better with 2-3 per cent.

The figures obtained are in remarkable agreement with those of 1926. There has been no improvement in 1927.

There is great room for improvement in the milk supply of Colombo, as these figures only represent a fraction of milk supplied to the citizens of Colombo, and only a fraction of the adulteration.

The city water supply continues to show a high state of purity. 193 samples were examined during the year.

The reaction or p.H. of the water varies from neutral (7·1) when the reservoir is full to 6·5 per cent. when the level falls during the drier months—first quarter of the year. Various devices have been thought out to lessen the action of the iron bacteria, but the methods of elimination have been discarded due to high costs or to engineering difficulties. If a supply of well burnt lime could be obtained by burning in a modern lime kiln, the original method suggested would be practicable, but a small economical lime burner is not obtainable ; if a large one is obtained by the Municipality, the excess of lime could be sold. The method referred to is to add sufficient lime to the water to overcome the natural acidity of the water and the residual acid in in the alum, and to partially neutralize the acid in the alum prior to adding to the water, finally

to turn a water into the mains with an alkaline reaction. Sodium aluminate has been ordered for experimental purposes ; this is an alkaline salt having similar properties to the acid alum. Labugama has been inspected. Some method of quick transit is necessary on the reservoir, as the present progress by means of a raft is tedious and time wasting.

The sewage purification is working satisfactorily for the plant used. The sewers act as septic tanks ; economizing the first stage of purification ; no solid excrement enters the septic tanks. A purification of 45-50 per cent. from Bell-mouth to effluent is satisfactory considering the proximity of the effluent to the mouth of the Kelani river. The total solids in suspension are not the only points to be considered, the oxidizable organic suspended solids are the most important ; of these 58 per cent. has been oxidized.

The dissolved oxygen in the Kelani river at the old Bridge-of-boats site and at 20 yards below sewage effluent show the same results, 6·4 per million. The sewage effluent has no depreciation on the quality of the river water under the conditions tested. This does not indicate that the river water is potable.

Twenty-nine well waters were examined ; of these, 13 were condemned and 16 considered suspicious. With a plentiful supply of city water wells should be eliminated from the city, as the danger of intermittent contamination is always imminent.

Three samples of arrack were taken from three taverns, the samples exceeded the permitted maximum content of 0·25 grains copper per gallon. When new stock of arrack arrives the maximum limit for copper should not be exceeded. A maximum copper content should be eliminated. Arrack should contain no copper.

The total number of samples examined was 1,400.

The Laboratory, Hyde park corner,
Colombo, January 19, 1928.

ALEXANDER BRUCE,
City Analyst.

Sample Index.

Month.	Town Water.	Well Water.	Miscellaneous.	Milk.
January	16	1	—	94
February	16	3	—	97
March	16	3	—	97
April	16	3	—	95
May	16	4	—	93
June	16	3	3 Arracks 1 Labugama water	99
July	16	2	2 bread and flour 1 flour	98
August	16	3	2 productions ; test poisons for Veterinary Surgeon	97
September	16	3	—	96
October	16	2	4 Sewages	97
November	16	1	6 Kelani river	97
December	17	1	2 Refuse	97
Total	193	29	21	1,157
Grand Total	1,400			

Milks Low in Fat, 1927.

Below Standard.

Month.	Total Milks.	Total below Standard.	1-10 Per Cent.	11-20 Per Cent.	21-30 Per Cent.	31-40 Per Cent.	Maximum.
January	94	10=10·6 per cent.	1	3	4	2	37 per cent.
February	97	10=10·3 per cent.	3	4	1	2	43 per cent.
March	97	6= 6·2 per cent.	1	3	0	2	34 per cent.
April	95	6= 6·3 per cent.	1	3	2	—	34 per cent.
May	93	5= 5·4 per cent.	0	0	1	4	46 per cent.
June	99	6= 6·05 per cent.	3	2	1	—	25·7 per cent.
July	98	3= 3·06 per cent.	1	1	1	—	43 per cent.
August	97	9= 9·3 per cent.	2	4	1	2	43 per cent.
September	97	13=13·4 per cent.	4	6	—	3	43 per cent.
October	97	11=11·3 per cent.	1	5	1	4	66 per cent.
November	97	9= 9·3 per cent.	1	4	2	2	54 per cent.
December	97	14=14·4 per cent.	3	6	1	4	43 per cent.
Total	1,158	102= 8.8 per cent.	21=1·8	41=3·5	15=1·3	25=2·1	
Added water		421=36·4 per cent.	302=26·1	74=6·4		45=3·9	67 per cent.

Comparing above the added-water figures are much higher than the fat deficiency.