

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

### **Contributors**

Colombo (Sri Lanka). Public Health Department.

### **Publication/Creation**

[Colombo, Ceylon?] : [Municipal printer?], [1940]

### **Persistent URL**

<https://wellcomecollection.org/works/a5euyp74>

### **License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

16637

RCB  
110

THE ROYAL SOCIETY  
for the Promotion  
OF HEALTH  
LIBRARY

MUNICIPALITY OF COLOMBO.

REPORT

XXXV

OF THE

CHIEF MEDICAL OFFICER  
OF HEALTH,

FOR THE YEAR

1940.



CEYLON :  
PRINTED AT THE MUNICIPAL PRINTING OFFICE, COLOMBO.

1942.

RCB/110

WELLCOME INSTITUTE LIBRARY	
Coll.	welM0mcc
Call	+
No.	Ann sup
	WA28
	JS8
	CTI

1940



22501406886



REPORT OF THE CHIEF MEDICAL OFFICER OF HEALTH  
FOR 1940.

STATISTICAL SUMMARY, 1940.

Mean temperature	...	...	...	80·9° F.
Mean humidity	...	...	...	82 per cent.
Rainfall	...	...	...	83·80 inches
Average rainfall for the previous 10 years	...	...	...	101·3 inches
Area within Municipal Council limits exclusive of lake	...	...	...	8,317 acres
Population at Census of 1931	...	...	...	284,155
Estimated mean population for 1940	...	...	...	327,402
Average density per acre	...	...	...	39·4
Number of live births registered	...	...	...	14,635
Birth-rate per 1,000 population	...	...	...	44·7
Birth-rate corrected for non-residents	...	...	...	28·6
Maternal mortality rate per 1,000 births	...	...	...	14·7
Maternal mortality rate corrected for non-residents	...	...	...	12·1
Number of infantile deaths	...	...	...	2,083
Infant mortality rate per 1,000 births	...	...	...	142
Infant mortality rate corrected for non-residents	...	...	...	144
Percentage of infantile deaths to total mortality	...	...	...	24·6
Number of stillbirths	...	...	...	716
Stillbirth rate per 1,000 births, live and still	...	...	...	46·7
Number of deaths	...	...	...	8,457
Crude death-rate per 1,000 population	...	...	...	25·8
Death-rate corrected for non-residents	...	...	...	16·6
Pneumonia	...	{ No. of deaths	...	802
	...	{ Death-rate per 1,000 population	...	2·4
Phthisis	...	{ No. of deaths	...	667
	...	{ Death-rate per 1,000 population	...	2·0
Enteric Fever	...	{ No. of deaths	...	267
	...	{ Death-rate per 1,000 population	...	0·8
Diarrhoea and Enteritis...	...	{ No. of deaths	...	744
	...	{ Death-rate per 1,000 population	...	2·3
Dysentery	...	{ No. of deaths	...	136
	...	{ Death-rate per 1,000 population	...	0·4

**Part I.—General Review.**

1. Reference to the statistical summary given will show that the birth-rate corrected for non-residents was 28·6 for 1940 whereas for 1939 it was 27·1. The general death-rate (corrected) was 16·6, *the lowest ever recorded*, the previous year's figure being 17·7.

The infant mortality rate corrected for non-residents was 144 while in 1939 it was 159. This figure of 144 is the lowest on record whereas the next lowest was 155 in 1938.

The health of the City during the year was very satisfactory.

2. INFECTIOUS DISEASES.

(a) *Major Infectious Diseases.*—No cases of Smallpox, Cholera, or Plague were reported during the year.



Colombo was declared free from Plague on April 26, 1939.

The last case of Human Plague occurred on June 1, 1938, and the last case of Rat Plague on August 23, 1938.

(b) *Other Infectious Diseases.*—As compared with the figures of the previous year Phthisis and Whooping Cough showed an increase in the number of cases reported.

Continued Fever, Diphtheria, and Measles also showed a very slight increase, viz., 3, 5, and 7 cases, respectively, more than in 1939.

On the other hand there was a definite lowering in the figures as regards Enteric Fever and Dysentery.

*Phthisis.*—A special officer was appointed in March, 1940, for a period of one year, the two chief conditions of his appointment being (a) to submit a report on the question of Tuberculosis in the City and (b) to bring the scheme into complete operation before the end of the year from the date of his appointment.

The report was submitted in May, and in June the Council accepted its general principles. The actual practical part of the scheme was started in August, and in September another Medical Officer was appointed as assistant to the special officer.

Arrangements were made to have a clinic once a fortnight in the afternoon at ten of the Municipal Free Dispensaries, the Medical Officer of the particular dispensary assisting.

Two male Health Visitors were also appointed.

3. *General Sanitation.*—The usual routine work of the Medical Officers of Health and the Inspectors and Sub-Inspectors has been carried on with due care and diligence and I can record a good year's work.

4. *Epidemiology and Vital Statistics.*—A special Malaria Survey of the City was undertaken, and it is hoped that the Survey will be completed very soon.

A regular systematic cleansing of those parts of the City where the labouring classes dwell was restarted during the year. This is done free by the department's gangs of labourers. This is a very great boon to all, and I am glad to say that the people themselves appreciate our every efforts and give us their co-operation.

The weekly returns of the figures of Enteric Fever and Diarrhoeal diseases are our chief guide as to which section of the City is to be dealt with in this manner.

5. *Maternity and Child Welfare.*—This section continues to do very good work as will be seen from Part IV. of this report.

The chief difficulty experienced with regard to Maternity and Child Welfare work is the poor type of Health Nurse available for the filling of vacancies. Even the number of applicants is very limited. Perhaps this is due to the fact that the remuneration received is not quite equivalent to that obtained in Government Service and also to the limited prospects.

It is hoped that this will soon be adjusted.

6. *Crematorium.*—The crematorium was opened to the public on October 4, 1940.

The number of cremations up to the date of writing has been disappointing.



7. The statement of work done at the Municipal Free Dispensaries is given below :—

*Work done at the Municipal Free Dispensaries, 1940.*

Name of Dispensary.	Number of Patients treated.	Number of visits of Patients.	Daily average attendance.	Number of homes visited by the Medical Officers.	Number of Persons inoculated against Typhoid.
San Sebastian	17,677	43,669	140	78	69
St. Paul's	12,273	26,018	84	28	76
Mutwal North	18,978	45,358	146	135	60
Mutwal South	19,865	42,297	136	16	96
New Bazaar	29,338	52,702	169	9	169
Maradana North	14,587	32,702	105	12	3
Maradana South	18,293	37,208	120	84	100
Slave Island	12,455	30,184	97	23	75
Kollupitiya	8,353	23,490	76	9	38
Timbirigasyaya	17,009	30,909	99	39	30
Wellawatta	18,178	40,083	129	21	357
Total, 1940	187,006	404,620	1,301	454	1,073
Total previous year	177,228	387,392	1,273	299	912

Colombo is now free from Plague. Cholera and Smallpox are not endemic, any such cases occurring being always as a result of one or more cases introduced into the City from the neighbouring continent.

Strangely enough, the incidence of Enteric Fever and Dysentery has been almost the same in the last two quinquennial periods. Both are endemic diseases. I am of opinion that the difficulty of lowering these figures is due, firstly, to the fact that the whole City not being sewered, very many dry-earth closets are inevitable. Even in spite of the fact that sewers are available in parts, dry-earth closets are still permitted for various reasons. Secondly, many wells are allowed in Colombo on the ground that they are not used for domestic purposes. We know that this condition is not adhered to.

A vigorous and almost a ruthless campaign of getting all dry-earth closets in areas where the sewer is available connected and a similarly vigorous campaign against all existing wells would, in my opinion, help to lower the incidence of these cases in the City considerably.

8. *Staff Changes.*—The following changes in the personnel of the staff occurred during the year :—

*Chief Medical Officer of Health.*—Dr. C. H. Gunasekara, Deputy Chief Medical Officer of Health, promoted Chief Medical Officer of Health on February 1, 1940, to succeed Dr. C. V. Aserappa, retired.

*Deputy Chief Medical Officer of Health.*—Dr. F. N. Jayewardene, 2nd Assistant Medical Officer of Health (Colombo South), promoted Deputy Chief Medical Officer of Health on February 1, 1940, to succeed Dr. C. H. Gunasekara, promoted.



*Medical Officer of Health, Colombo South.*—Dr. H. Ratnarajah, 3rd Assistant Medical Officer of Health (Colombo North), promoted 2nd Assistant Medical Officer of Health (Colombo South), on February 1, 1940, to succeed Dr. F. N. Jayewardene, promoted.

*Medical Officer of Health, Colombo North.*—Dr. L. E. J. Poulter, 4th Assistant Medical Officer of Health (Epidemiology and Vital Statistics), promoted 3rd Assistant Medical Officer of Health (Colombo North), on February 1, 1940, to succeed Dr. H. Ratnarajah, promoted.

*Medical Officer of Health, Epidemiology and Vital Statistics.*—Dr. V. Nadarajah appointed 4th Assistant Medical Officer of Health (Epidemiology and Vital Statistics), on April 2, 1940, to succeed Dr. L. E. J. Poulter, promoted.

*Dispensary Medical Officers.*—Dr. V. K. Paramanayagam, Medical Officer, Slave Island Dispensary, was granted 10 months' leave out of the Island commencing from April 22, 1940, and Dr. M. D. D. Jayawardene, Relief Medical Officer, acted for him.

Dr. L. D. P. Dharmaratne, Medical Officer, Maradana North Dispensary, was temporarily transferred as Assistant to the Special Officer, Chest Diseases, with effect from August 28, 1940, and his substantive post was temporarily filled by Dr. T. Nallainathan.

*Anti-Tuberculosis Branch.*—Dr. M. de Almeida was appointed Special Officer, Chest Diseases, on March 11, 1940, on agreement for one year.

The following staff was appointed to assist the Special Officer, Chest Diseases:—Dr. L. D. P. Dharmaratne, Assistant Medical Officer, of whom mention is made above, Mr. P. H. de Silva, Clerk, from August 29, 1940, and Messrs. V. A. Jayasinghe and K. A. G. L. Jayasekera, Health Visitors, with effect from October 23, 1940.

*Clerical Staff.*—Messrs. W. A. Fernando and J. D. E. Jayasinghe were appointed Clerks Division II. on March 18, 1940, to succeed Messrs. S. A. Jayasundera and W. J. I. P. Senanayake, promoted temporary Sanitary Sub-Inspectors.

*Sanitary Inspectors.*—Messrs. J. A. V. Rodrigo, E. H. Perera, and T. Nalliah, Sanitary Sub-Inspectors, were promoted as Sanitary Inspectors temporarily with effect from February 24, 1940, the vacancies being caused by the death of Mr. P. T. de Saram and retirement of Messrs. E. B. Milhuisen and R. C. Mackellar. Mr. J. A. V. Rodrigo was later transferred as Relieving Officer, Public Assistance Department, and the resulting vacancy was filled by the promotion of Mr. P. J. Dabera on November 1, 1940.

*Sanitary Sub-Inspectors.*—Messrs. S. A. Jayasundera, W. J. I. P. Senanayake, G. W. K. Perimpanayagam, G. W. de Silva, and J. T. de S. Abeysena were appointed Sub-Inspectors temporarily to fill the vacancies caused by the promotion of Messrs. J. A. V. Rodrigo, E. H. Perera, T. Nalliah, and P. J. Dabera, and the transfer of Sub-Inspector L. G. W. Jayasekera as Relieving Officer, Public Assistance Department.

*Apothecaries.*—Mr. T. L. Fernando, Apothecary, retired on September 8, 1940, after completing 25 years' service under the Council. The vacancy was filled by the appointment of Miss E. M. de Alwis on October 24, 1940.

*Public Health Nurses.*—Miss J. S. J. Bastiam Pillai was appointed on November 15, 1940, in place of Mrs. S. de Alwis, dismissed.

Mrs. C. Dalpathadu left the service on December 1, 1940, to take up an appointment under the Kandy Municipal Council. The resulting vacancy was not filled during the year.

C. H. GUNASEKARA,

M.R.C.S. (Eng.), L.R.C.P. (Lond.), B.A. (Cantab.),  
D.P.H. (Cantab.), F.R.I.P.H. (Lond.),

Chief Medical Officer of Health.

The Town Hall,  
Colombo, March 24, 1941.



**Part II.—Sanitation.**

THE activities of the staff of Sanitary Inspectors continued during the year under review to be directed to the enforcement in insanitary premises and areas of requirements necessary for the purpose of improving and maintaining sanitary conditions.

Constant vigilance has been exercised over all registered dairies, bakeries, and eating-houses as well as other food establishments with satisfactory results.

Markets, laundries, and other trades premises have been regularly inspected, and many minor defective conditions were detected and rectified.

The sale of foods and drinks on kerbs and pavements under the most disgusting conditions continues unabated; public pavements in the vicinity of Municipal Markets are openly occupied as private market stalls by vociferous individuals on a steadily increasing scale, while Municipal Markets Stalls continue to remain unoccupied.

In the matter of new housing for the poor, an attempt is being made to prevent the further construction of the old type of tenements—

- (a) in which occupants enjoy little or no privacy,
- (b) where sanitary facilities were inadequate and inconveniently placed, and
- (c) in which owing to absence of separate kitchen or its faulty design, smoke from the fire place circulated through the house before escaping into the open air.

*Dairies.*—Number of dairies, 56.

*Bakeries.*—Two bakeries were discontinued during the year and the total at the end of the year was 49.

*Eating-houses.*—Thirty-four were discontinued during the year and there were 27 new registrations. Total at end of year was 432.

*Private Laundries.*—Thirty-six private laundries were discontinued and there were 21 new registrations. Total at end of year was 321.

*Municipal Markets.*—No additions.

*Municipal Laundries.*—No additions.

H. RATNARAJAH,  
L.R.C.P. (Lond.), M.R.C.S. (Eng.), D.P.H. (Lond.),  
Medical Officer of Health, Colombo South.

L. E. J. POULIER,  
L.R.C.P (Lond.), M.R.C.S. (Eng.), D.P.H. (Lond.),  
Medical Officer of Health, Colombo North.

March 13, 1941.



### Part III.—Epidemiology and Vital Statistics.

#### I.—METEOROLOGY.

*Temperature.*—The mean temperature for the year was 80°9' F. as against 80°3' for the previous year. The highest monthly mean temperature was 88°9' in April and the lowest 70°2' in January.

*Rainfall.*—The total rainfall for the year was 83·80 inches as against 97·08 inches for the previous year. The decennial average was 101·3 inches.

*Humidity.*—The mean humidity for the year was 82 per cent. the same as for the previous year. The highest humidity (night) was 95 per cent. in October and November and the lowest (day) 63 per cent. in January.

#### II.—POPULATION.

The estimated mean population for 1940 and the density per acre are shown in the following tables:—

##### *Population by Race, 1940.*

Race.	Population at Census of February 26, 1931.	Estimated Mean Population, 1940.
All Races	284,155	327,402
Sinhalese	127,927	147,397
Tamils	65,704	75,704
Moors	44,240	50,973
Burghers	15,887	18,305
Malays	7,022	8,091
Europeans	3,340	3,848
Others	20,035	23,084

#### III.—BIRTHS.

The number of live births registered was 14,635 as against 13,106 for the previous year. The corrected birth-rate was 28·6 as against 27·1 for the previous year.

There were 716 stillbirths representing a rate of 46·7 per 1,000 births, live and still, as against 52·1 for the previous year.

#### IV.—DEATHS.

8,457 deaths were registered during the year as against 8,356 for the previous year. The corrected death-rate was 16·6 per 1,000 population as against 17·7 for the previous year.



## V.—PRINCIPAL CAUSES OF DEATHS.

There were 804 deaths from pneumonia as against 919 for the previous year. The number of deaths from phthisis increased from 542 for 1939 to 667 for the year under review—*vide* Section X. Deaths from diarrhoeal diseases showed a decrease. There was no appreciable difference in the mortality from other causes.

## VI.—INFANT MORTALITY.

The infant mortality rate of 142 per 1,000 births as against 155 for the previous year is the lowest on record. The rate corrected for non-residents was 144 as against 159 for the previous year.

Developmental diseases, pneumonia, bronchitis, and digestive diseases continued to be the principal causes of infantile deaths. The mortality rate due to pneumonia and bronchitis has shown a distinct fall during the year under review.

## VII.—MATERNAL MORTALITY.

The maternal mortality rate corrected for non-residents was 12.1 as against the same figure for the previous year and 14.2 the average for the previous five years.

The puerperal septicæmia rate fell from 4.3 for the previous year to 3.8 for the year under review.

There were 3 deaths from puerperal septicæmia among the cases conducted by Municipal midwives.

There were 19 cases of puerperal pyrexia reported as against 30 for the previous year.

## VIII.—INFECTIOUS DISEASES (GENERAL).

The following table shows the number of cases of notifiable diseases reported during the year.

There was a fall in the incidence of chickenpox, mumps, dysentery, and enteric fever, while there was an increase in the number of cases of phthisis and whooping cough.

*Town Cases of Notifiable Infectious Diseases reported during the Year 1940.*

(Exclusive of Cases in Welikada Jail.)

Disease.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Town Cases, 1940.	Total Town Cases previous Year.
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chickenpox	85	219	243	175	70	39	38	26	24	28	49	47	1,043	1,705
Measles	19	40	37	43	19	19	37	69	70	55	81	54	543	536
Diphtheria	4	8	2	7	15	12	7	8	6	—	1	3	73	68
Acute Diarrhœa	1	—	—	1	—	2	—	—	—	—	—	1	5	5
Enteric Fever	27	43	45	38	44	40	37	34	23	32	27	15	405	575
Continued Fever	14	12	19	24	21	12	15	16	14	14	11	8	180	177
Phthisis	95	97	93	112	73	59	131	100	107	110	68	93	1,138	907
Dysentery	18	49	22	19	12	28	27	31	15	9	12	5	247	479
Whooping Cough	29	14	15	23	29	16	34	31	41	24	31	23	310	143
Pneumonia	40	38	23	36	21	21	25	39	39	39	40	34	395	509
Mumps	17	16	14	14	11	9	8	9	9	7	11	10	135	239
Puerperal Pyrexia	3	2	1	—	2	3	2	3	—	1	2	—	19	30
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Typhus Fever	—	1	—	—	—	—	—	—	—	1	—	—	2	—
Scarlet Fever	—	—	—	1	—	—	—	—	—	—	—	—	1	—
Total	352	539	514	493	317	260	361	366	348	320	333	293	4,496	5,375



*Infectious Diseases reported from the Prison Hospital in 1940.*

Disease.	No. of Cases	Disease.	No. of Cases.
Dysentery { Amœbic 5 } ...	39	Mumps ...	128
{ Bacillary 34 } ...		Phthisis ...	29
Chickenpox ...	314	Enteric Fever ...	2
Measles ...	22		

## IX.—PNEUMONIA.

There were 802 deaths from pneumonia as against 919 for the previous year. Corrected for non-residents the figures are 461 and 641, respectively, representing a rate of 1.4 per 1,000 population as against 2.0 for the previous year.

395 town cases were registered, of which 40 were untraced. The remaining 355 cases were investigated by the department.

## X.—PHTHISIS.

1,138 town cases of phthisis were registered as against 907 for the previous year, representing a case-rate of 3.5 per 1,000 population as against 2.8 for the previous year.

There were 667 deaths as against 542 for the previous year. Exclusive of non-residents, the figure was 490 as against 434 for the previous year. The crude and corrected death-rates were 2.04 and 1.50 as against 1.68 and 1.35 for the previous year.

## XI.—WHOOPIING COUGH.

310 cases of whooping cough were registered as against 143 for the previous year. Seven deaths were registered.

## XII.—BRONCHITIS.

There were 201 deaths from this cause as against 190 for the previous year. Exclusive of non-residents, the total was 168 as against 176 for the previous year, distributed as follows:—

	Number of Deaths.		Number of Deaths.
Acute Bronchitis ...	91	Unspecified (—5 years) ...	8
Chronic Bronchitis ...	57		
Unspecified (—5 years) ...	12	Total ...	168

## XIII.—PLAGUE.

The last case of human plague occurred on June 1, 1938, and the last case of rat plague on August 23, 1938.

Notices for improvement were issued in respect of 89 trades premises. A survey of 120 premises and 252 underground and rainwater drains was made during the year.

*Statement showing Storage of Grain in the City.*

Number of grain shops provided with bins of the approved type at December 31, 1940:—

Ward.	No. of Shops Storing over 15 Bags.	No. of Shops Storing 15 Bags and under.	No. of B Storing in Approved Stores.	No. of C Storing in Approved Bins.
A.	B.	C.	D.	E.
Fort ...	—	1	—	1
Pettah ...	—	51	—	51
St. Paul's ...	—	157	—	156
San Sebastian ...	24	99	24	98
Slave Island ...	—	93	—	93
Dematagoda ...	2	90	2	90
Maradana South...	7	53	7	53



## XIV.—SMALLPOX.

There were no cases of smallpox. The last case was registered on February 25, 1937.

## XV.—CHOLERA.

There were no cases of cholera. The last case was registered on March 4, 1935.

## XVI.—ENTERIC FEVER.

405 town cases of enteric fever were registered as against 575 for the previous year, representing a case-rate of 1.24 per 1,000 population as against 1.78 for the previous year.

The crude and corrected death-rates were 0.82 and 0.38 per 1,000 population as against 0.83 and 0.49 for the previous year.

## XVII.—CONTINUED FEVER.

180 town cases of continued fever were registered during the year as against 177 for the previous year.

There were 53 deaths.

## XVIII.—INFLUENZA.

18,955 cases of influenza were treated at the Municipal Free Dispensaries as against 15,973 cases for the previous year.

There were 395 deaths, representing a rate of 1.21 per 1,000 population as against 1.13 for the previous year.

## XIX.—MOSQUITO PREVENTION.

1,229 complaints of mosquito nuisance were dealt with during the year and over 2,400 gallons of oil were consumed in oiling the breeding places.

An Anopheline Larval Survey was undertaken during the year, of which the results were as follows:—

2,450 breeding places were sampled, of which 495 were positive for anopheline larvæ. 66,948 dips were taken in the examination of these positive places and 7,545 anopheline larvæ were collected.

The *Larval Rate* for the whole City worked out at 11.27 per cent. per 100 dips.

The *Distribution of Species* was as follows:—*A. varuna* 45, *A. jamesi* 507, *A. hyrcanus* 800, *A. barbirostris* 90, *A. subpictus* 3,619, *A. vagus* 1,382, *A. tessellatus* 30, *A. fuliginosus* 1, and 936 1st stage larvæ.

The *Percentage Prevalence of Species* was:—*A. varuna* 0.69 per cent., *A. jamesi* 7.85 per cent., *A. hyrcanus* 12.36 per cent., *A. barbirostris* 1.39 per cent., *A. subpictus* 55.92 per cent., *A. vagus* 21.32 per cent., *A. tessellatus* 0.46 per cent., and *A. fuliginosus* 0.01 per cent.

The *Predominant Species* of this survey was *A. subpictus* which accounted for nearly half the number of anopheline larvæ caught. *A. culicifacies*, the Malaria Carrier, was not detected during the investigations carried out in this survey. The eight other species found are not carriers of Malaria.

The Wet Weather Survey is in progress.



## XX.—DYSENTERY.

247 town cases were registered, exclusive of 39 Jail cases. The number of deaths corrected for non-residents was 74 as against 90 for the previous year.

The distribution by type of the cases and deaths was as follows:—

	No. of Cases.	No of Deaths.
Amœbic	... 62	... 19
Bacillary	... 87	... 37
Not specified	... 98	... 18
Total	... <u>247</u>	... <u>74</u>

The crude and corrected death-rates were 0·41 and 0·23 per 1,000 population.

## XXI.—DIARRHŒA AND ENTERITIS.

744 deaths from diarrhœa and enteritis were registered as against 766 for the previous year. There were 349 deaths of children under 2 years from this cause.

Exclusive of non-residents, the number of deaths was 529 as against 575 for the previous year.

The crude and corrected death-rates were 2·27 and 1·62 as against 2·38 and 1·78 per 1,000 population for the previous year.

## XXII.—DIPHTHERIA.

Seventy-three cases were reported during the year as compared with 68 during the previous year. The bacteriological examination gave positive results in culture in all these 73 cases. Subsequent tests for virulence gave positive results only in 13 cases. Further investigations will have to be carried out before an opinion is expressed on these cases reported as diphtheria.

## XXIII.—MEASLES.

There were 543 cases of measles, exclusive of 22 Jail cases, as against 536 for the previous year.

There were 4 deaths from this cause, all of town residents, 3 of them due to secondary broncho-pneumonia and one due to enteritis following measles.

## XXIV.—CHICKENPOX.

1,043 cases of chickenpox were registered, exclusive of 314 Jail cases, as against 1,705 cases for the previous year.

No deaths were registered.

## XXV.—MUMPS.

135 town cases were registered, exclusive of 128 Jail cases, as against 239 cases for the previous year.

There were no deaths from this cause.

V. NADARAJAH,

L.R.C.P. & S. (Edin.), L.R.F.P. & S. (Glas.),  
D.T.M. & H. (Lond.), D.P.H. (Eng.).

March 10, 1941.

Medical Officer of Health, Epidemiology and  
Vital Statistics.



**Part IV.—Maternity and Child Welfare.****REPORT OF THE MEDICAL OFFICER, MATERNITY AND  
CHILD WELFARE, FOR 1940.**

DURING the year under review work in this branch has been carried on in the usual way. Our ante-natal and infant clinics have been well attended. There were 15,744 expectant mothers seen as compared with 14,092 in 1939. Sixty-four more infants than in the previous year were examined and treated, bringing the total to 4,948.

The following is a return of the ante-natal attendance at the clinics. Figures include visits and revisits :—

Centre.	Attendance.
St. Paul's ... ..	3,644
Slave Island ... ..	2,063
Maradana ... ..	2,445
Prince of Wales avenue ... ..	3,336
Moderā ... ..	2,552
Wellawatta ... ..	1,704
Total for the year ... ..	<u>15,744</u>

There are still several mothers who do not persevere sufficiently long enough with breast feeding the infant. Perhaps they are encouraged by the prospect of receiving free milk at the clinic. Within recent times we have thoroughly discouraged mothers who have sufficient milk to nurse the child approaching the Centre for artificial milk. We feel that this is a step in the right direction.

*Midwives' Cases.*—2,271 district cases were delivered by our midwives during the year compared with 2,304 in 1939. Besides these, 670 cases were delivered in our Homes. This is 10 more than the last year.

Mention has to be made of the District Midwifery Service inaugurated in the Maradana Area during the course of the year. I refer to the cases conducted by the medical students.

At a conference of three Medical Officers of the Medical Department, the Chief Medical Officer of Health and the Medical Officer, Maternity and Child Welfare, held at the Town Hall the scheme originally drawn up was discussed and revised. The revised scheme has been almost perfected now and the work is progressing very satisfactorily. In all difficult cases the students summon to their aid either a Surgeon from the Lying-in Home or the Medical Officer, Maternity and Child Welfare. During the last quarter (October to December, 1940) fifty-three cases were conducted by the students and in forty-eight of these cases our midwife was also in attendance. The students work under the direction of Dr. P. R. Thiagarajah, Visiting Surgeon, Lying-in Home, who is closely associated with the proper and efficient working of the scheme.

*Maternity Homes.*—There is sustained popularity of the Homes. Each year there has been an increasing demand for admission. Owing to want of accommodation several cases with tickets were referred back to their own homes or to the Lying-in Home. In the former case the patient was given, if available, the services of a midwife from the Centre. I am glad to mention that now Muslim mothers make use of our Homes more readily. It is a happy thought that they now place their needs above old restrictions. During the year 39 Muslim mothers were delivered in our Homes. This is 10 more than the previous year.



Maternity Home.	1937.	1938.	1939.	1940.
Moderia ...	146	218	231	214
St. Paul's ...	114	180	190	199
Prince of Wales avenue..	154	232	239	257
Total ...	<u>414</u>	<u>630</u>	<u>660</u>	<u>670</u>

All patients delivered in our Homes visit the post-natal clinic with their babies within three weeks after they are discharged. The infant is registered at the clinic, the weight, progress, &c., noted, and any other necessary attention given.

Post-natal clinics, Hookworm treatment, and other activities are being continued.

The staff remains the same as in 1939. There has been a certain amount of disappointment caused in the matter of leave. Due to the inability to make suitable arrangements leave in certain instances had to be disallowed. Though such leave was granted to the officers concerned at the first possible opportunity they were put into some inconvenience as leave could not be granted to them when required. In this connection I urge that early consideration be given to the appointment of an additional Relief Public Health Nurse. It will not be possible to adjust matters satisfactorily till then.

J. E. D. MENDIS,

L.R.C.P. & S. (Edin.), L.R.F.P & S. (Glas.),  
D.T.M. & D.T.H. (L'pool).

March 11, 1941.

Medical Officer, Maternity and Child Welfare.

*Annexure A.*

REPORT OF THE CITY MICROBIOLOGIST FOR 1940.

1.—LABORATORY.

I HAVE the honour to submit the following report for the year 1940.

The activities of the Laboratory during this year were influenced by war conditions in so far as important supplies from England were delayed or failed to arrive. Nevertheless no calamity did arise as it was possible to reduce the disturbing effects by substituting locally available materials for imported ones.

There were no changes in the staff and no major alterations of or additions to buildings and equipment.

The routine work shows again an increase in the number of examinations. Compared with last year's, 4,705, this year 5,540 specimens have been examined. In addition there were 874 samples of blood submitted for the serological diagnosis of malaria.

The systematic examination of milk vendors and hotel employees led to the detection of a healthy typhoid carrier among the waiters of a hotel.

There was no case of human or rat plague during 1940.

In consequence of the appointment of a Special Tuberculosis Officer the number of specimens for T. B. submitted through the department has risen from 10 to 68, 18 of which were found to be positive. The attempt to increase the number of positive results by the introduction of cultural methods was continued and proved successful.

*Water Supply.*—The routine examination of water from the various sources shows that the high standard of purity has been maintained throughout the year.



## 2.—RESEARCH WORK.

*Typhoid*.—Further experience with the culture medium recommended by the Deputy City Microbiologist proved its usefulness. A paper describing this medium in detail was published in July.

The work on the bacteriophage against *B. typhosus* was continued and led to more detailed study of the antigenic composition of the bacillus and its modifications under certain circumstances. This study took much longer than anticipated and is still in progress. It is intended to put some of the experiences gathered in experimental work into practical use as soon as possible. This work includes the preparation of immune sera from horses which was started at the end of the year with the assistance of the Veterinary Department.

*Malaria*.—The serological tests seem to be well established. A publication of the results of 1,000 cases obtained in collaboration with Dr. G. A. W. Wickremasuriya will be out in due course.

A short paper on the simplified Buffer Precipitation Test was published in September.

*Diphtheria*.—The routine examination of swabs for diphtheria has considerably increased. There were 1,844 for 1940 as compared with 1,194 for 1939. A special investigation as regards the virulence of the various strains found is being carried out by the Deputy City Microbiologist.

## PUBLICATIONS.

1. Tyagaraja, S. (1940) : A simple modification of Wilson & Blair's medium for the isolation of Typhoid & Paratyphoid bacilli, *J. Hyg. Camb.* 40, 414-22.
2. Wolff, E. K. (1940) : Procedure & Value of Systematic Case-Finding in Tuberculosis, *Transact. Soc. M.O.H., Ceylon*, 8, 18.
3. Wolff, E. K. (1940) : The Buffer Precipitation Test for Malaria (B.P.T.) adjusted for large scale examination. *Ind. Med. Gaz.* 75, No. 9, 517.

February 28, 1941.

E. K. WOLFF,  
City Microbiologist.

## Annexure B.

## REPORT OF THE CITY ANALYST FOR 1940.

*Water Samples*.—There were 191 samples of water taken from the City standpipes from different parts of the city, at the regular rate of 16 samples per month. Twenty samples of the city water supply were taken from Labugama, Maligakanda, and Kalatuwewa. These are non-standpipe reservoir waters. No such samples have been received for examination since October.

The quality of the city water was variable during the year. Quality in the early part of the year as with the end of the previous year was good. Mid-January showed a depreciation in the presence of free ammonia. Colombo water had been free from this constituent previously. The free ammonia was not constant as drawn from the city standpipes. The albuminoid ammonia remained low. The free ammonia became more prevalent during February but was not evenly distributed throughout the city. The albuminoid ammonia increased but was variable throughout the city. March saw a further increase in the free and albuminoid ammonia. The quality of April's water was much depreciated compared to January. During May the water contained large proportions of free ammonia. The water began to improve in June, intermittently. July, until the end of the year, the water was of good quality. From time to time, water deposits showed living animalculæ, which are described in water literature as indicating non-potable waters. The presence of free ammonia in natural waters is a bacterial action on the albuminoid matter simplifying it. There was no option but to condemn such water unless boiled.



Three well waters were examined, all condemned.

*Milk* samples numbered 1,353, of which 55 per cent. passed the standard. Water added or not up to the standard in solids not fat was found in 29'4 per cent. samples. Deficiency in fat was found in 28'7 per cent. Deficient in fat only 15'5 per cent. giving a total which do not come up to the standard of 44'9 per cent. Colombo has not got a satisfactory milk supply ; there is no improvement on previous years' supplies of the samples tested.

*Coal Gas* supply was tested monthly. Sulphuretted hydrogen was absent on all occasions. Ammonia was far below the permitted quantity of 4 grains per 100 cubic feet, usually a tenth to a seventh of that quantity was found.

*Beverages* were tested for salicylic acid and was found in many samples, which are widely consumed. Benzoic acid and sulphur dioxide are permitted preservations. Salicylic acid is considered dangerous and samples containing this preservative were condemned as being unfit for human consumption.

*Sewages* examined showed about 50 per cent. purification. The Wellawatta Bellmouth Sewage is as strong as the Madampitiya effluents.

The 59 miscellaneous samples are included in above. The total number of samples examined was 1,626, nearly 300 more than the previous year.

The resolutions of the conference, December 6, 1939, have not materialized. Co-operation is urgently required.

January 25, 1941.

ALEXANDER BRUCE,  
City Analyst.







